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Introduction and Overview: *Integral Review* Special Issue on the STAGES Model

Tom Murray¹

Special Issue Contents

("*" Indicates peer reviewed articles.)

1) **Introduction and Overview: Integral Review Special Issue on the STAGES Model**

   *Foundations of the STAGES model: theory, application, and research:*

2) **Terri O'Fallon**, *States and STAGES: Waking up Developmentally* (New theory on the interpenetration of states and stages)

3) **Tom Murray** and **Terri O'Fallon**, *Summary of STAGES Validation Research* (Summarizing over a dozen quantitative studies completed in the last two years)

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   a) Psychological application of the STAGES model
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5) **Abigail Lynam**, *Principles and Practices for Developmentally Aware Teaching and Mentoring in Higher Education* (Lessons learned following completed PhD research.)

6) **Gail Hochachka**, *The Scenic Route: A Developmental Approach Emphasizes the Importance of Human Interiority in Transformative Approaches to Climate Change* (Based on PhD research in progress)

7) **Natasha Mantler**, *Women’s Authentic Leadership Development* (Based on a completed PhD project.)

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tommurray.us@gmail.com
8) *John Churchill & Tom Murray*, Integrating Adult Developmental and Metacognitive Theory with Indo-Tibetan Contemplative Essence Psychology (Based on a completed PhD project)

9) *Antoinette Braks*, Leadership Coaching Leads to Later Stage Development (Based on completed PhD research)

10) *Jason Miller*, Finding Truth Within: Exploring the Importance of Reflective Practice in Deepening Self-Knowledge (Based on a completed master’s thesis)

11) *Lisa Buckley*, Hope Examined Through a Developmental Stage Perspective. (Summary of a PhD research proposal)

**STAGES model new research:**

12) **Terri O'Fallon**, STAGES Child Research: Preliminary Report (Description of in-progress research of age 4-13 children)

13) *Tom Murray*, Investigating the Validity of the Ogive Aggregation Method, Including the use of Rasch Analysis for the Sentence Completion Test and the STAGES Model (Validity research, and a new way to aggregate the SCT items into the final score)

14) *Terri O'Fallon* and **Tom Murray**, The STAGES Specialty Inventories: Robustness to Variations in Sentence Stems.

**Other uses of the STAGES model:**

15) **Trish Nowland, John Kesler**, and **Thomas McConkie**, Integral Polarity Practice and the STAGES Developmental Model. (Summary of a videoconference discussion)

**Alternative Perspectives:**

16) *Roman Angerer*, Luhmann’s Life Work and Tier Patterns: The Analysis of Differences and Contingent Patterns. (Includes critique of some aspects of STAGES and other SCT models)

17) **Trisha Nowland** STAGES - Methodological Principles for Future Enactions (Includes critique of some aspects of STAGES and other SCT models)


**Introduction**

The STAGES model of adult development is a relatively new framework created by Terri O'Fallon, in consultation with several colleagues over the past decade (O'Fallon, 2010, 2011, 2012, 2013). STAGES is an extension of the ego-development framework formulated by Jane Loevinger and updated by Susanne Cook-Greuter, with elements inspired by Ken Wilber's AQAL model and Sri Aurobindo's model of psychospiritual development (Loevinger, 1979; Cook-Greuter, 1999; Wilber, 1995; Aurobindo, 1992). STAGES diverges from the earlier frameworks in two ways. First, it proposes a small set of underlying parameters (factors or dimensions) that give rise to, or explain, the progression of developmental levels described in the prior theories. Second, it uses an alternative scoring system – one based on these parameters. The
STAGES framework, as described in papers and seminars by O'Fallon and her colleague and brother Kim Barta, diverges from prior adult developmental frameworks in two additional ways. First, it includes a very specific model for "shadow work" (psychological health, healing, and repair). Second, and it includes a treatment of states and state stages that aligns it more closely with western transpersonal and eastern contemplative theories of human potential that speak directly to later stages of self-actualization and ego transcendence.

Though O'Fallon has a PhD and has worked within the US educational infrastructure, the STAGES model gestated and was born out of the modest petri dish of O'Fallon and a few colleague's work in human-potential workshops and her work with Cook-Greuter in developmental scoring – i.e., it did not evolve within a traditional academic context or with the assistance of traditional grant or corporate research money. Like almost all such theories created in pragmatic contexts, at first, it was simply a new conceptual framework – one among hundreds of models of human capacity and growth that could be used to inform leadership, parenting, personal growth, cultural change, etc. Unlike most such models, it had its roots in a model that had been rigorously validated in scholarly venues (i.e., Loevinger's lineage), and it was always O'Fallon's intention to validate the model empirically.

Within the past five years, three types of advancements have launched STAGES from its gestation into a new level of maturity: (1) through dozens of papers and workshops, STAGES has become increasingly well-known and is being applied in many contexts by hundreds of professionals; (2) O'Fallon and colleagues have completed a number of empirical and psychometric studies validating many aspects of the model; and (3) the STAGES model has been incorporated into about a dozen dissertation research projects, thus establishing itself (provisionally) in academic settings.

It is the latter two of these trends that motivated the creation of this special issue of *Integral Review*. Though STAGES is still a new model that requires additional validation, scrutiny, and evolution, it is notable that in a relatively short time, it has achieved enough to be able to fill a journal issue with descriptions of research and application projects. The timing seemed right to ask *Integral Review* to host a special issue for collecting these threads in one place. The contributors are listed below.

At the end of this introduction are *Notes on multiple interests and independent research*, which include a discussion of multiple interests and potential sources of bias in favor of the STAGES model in the editing of this issue. For this issue, we did reach out to several sources for alternatives to, and critical perspectives on, the STAGES model. The issue contains such offerings along those lines from Thomas Jordan, Roman Angerer, and Trish Nowland.² Though the majority of articles herein are supportive of STAGES, this special issue will serve as a milestone or foundation upon which others can offer additional critical and alternative

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² At this early stage in the evolution of STAGES, it is difficult to find critical perspectives that are also well informed. A well-intentioned critique by Cook-Greuter et al. was published in the November 2017 issue of Integral Leadership Review, along with a response from O'Fallon et al. that concluded that 9 of the 10 points of critique were based on misconceptions about the STAGES model or its formation. However, that exchange also led directly to the more nuanced conversation between Jordan and Murray that appears in this issue.
perspectives. In addition, as is indicated in some of the articles herein, research on STAGES, more than differentiating it from other ego-development frameworks, supports (or allows of the evaluation of) the entire lineage of ego development and sentence completion test (SCT) projects.

Contents of this Issue

For those new to the STAGES model, an introduction to the model can be found in this issue in Barta's *Psychological application of the STAGES model*. Other papers in this issue by Barta give an indication of the range of application fields for the model, specifically psychotherapy, parenting, love and relationships, and organizational shadow. Foundational writings on the STAGES model exist in O'Fallon (2010, 2011, 2012, 2013). The most complete description of the STAGES model is the 20-page brochure *The Stages Matrix Roadmap*, downloadable from http://bit.ly/stagesroadmap. Moreover, foundational material on the psychometric validity of the SCT can be found in Murray (2017). Finally, a summary of validity research to date on the STAGES SCT assessment is found in this issue (Murray).

Below is a summary of this issue’s contents.

Foundations of the STAGES Model: Theory, Application, and Research

1. **Terri O'Fallon**, *States and STAGES: Waking up Developmentally*. Here O'Fallon articulates her theory of the relationship between states and stages in human development.

2. **Tom Murray** and **Terri O'Fallon**, *Summary of STAGES validation research*. This paper gives an overview of empirical research to validate the psychometric validity of the STAGES assessment instrument, some of which is published in full elsewhere.

3. **Kim Barta**, who works closely with O'Fallon to refine, evolve, and teach the STAGES model, has written seven pieces that describe the STAGES model and how it can be applied in the domains of: psychology and psychotherapy, personality typologies, parenting, love and relationships, developmental lines, and organizational shadow. We combine these into one paper with seven parts. Within this special issue, the first paper serves as the best introduction to the STAGES model itself within this special issue.

Dissertations and Research using the STAGES Model

4. **Abigail Lynam**, *Principles and Practices for Developmentally Aware Teaching and Mentoring in Higher Education*. This article offers a review of the application of adult development theory and the STAGES model to teaching and learning. It includes the results of research on the impact of learning about adult development for faculty and students in a graduate program, additional research on the meaning-making and

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3 This document is also available on the STAGES International website at https://www.stagesinternational.com/about-the-model/.
perspective-taking of educators through the stages of development, and practical insights and principles for teaching and mentoring developmentally.

5. **Gail Hochachka**, *The scenic route: A developmental approach emphasizes the importance of human interiority in transformative approaches to climate change*. This paper summarizes two research projects that apply adult developmental theory to study how people make meaning of climate change. Approaches to climate change policy, mitigation, and education focus predominantly on exterior (techno-managerial) concepts of accommodation and adaptation; and of the few that include consideration of human psychological and cultural interiors, almost none apply maps of human adult meaning-making (or ego-) development. This body of work aims to introduce that critical factor into the climate change dialogue, and in doing so, deepen and clarify the sense in which the term "transformation" is applied in educational and policy work. The first study described uses a modified version of the STAGES text analysis method to evaluate the developmental level of reflective texts produced by Central Americans living in rural contexts. These texts are reflections upon photographs taken by workers as part of a "PhotoVoice" action research project. The second study described is an in-process (incomplete) analysis of text from within a standard STAGES SCT that was modified so that one-fifth of the items were related to the climate change theme. In both studies, Hochachka discovers how individuals at various developmental levels understand what climate change is, how it affects them, and what should be done about it.

6. **Natasha Mantler**, *Women’s Authentic Leadership Development*. The goal of this research was to study women's conceptions and experiences of leadership and the authenticity of leadership. It looked at relationships between (1) ideas about leadership and authenticity; (2) conventional biases and stereotypes about gender and leadership; and (3) the individual's assessed developmental level. The larger contributions relate to (1) understanding of the social construction of authenticity and (2) augmenting women's leadership development programs and consequently preventing further entrenchment of stereotypes. Stratified sampling was used to select 10 women from a larger pool of women leaders who had previously completed a developmental STAGES assessment. These subjects were interviewed, and the interviews were transcribed and analyzed using grounded theory methods. The results indicate that women experience and understand authentic leading and leadership differently throughout the stages of development, becoming more complex with ever-widening perspectives and understanding, initially intellectual, then more embodied.

7. **John Churchill** (with **Tom Murray**), *Integrating adult Developmental and Metacognitive Theory with Indo-Tibetan Contemplative Psychology*. Churchill is a seasoned teacher in the lineage of contemplative practices outlined in the Indo-Tibetan Mahamudra and Dzogchen traditions. His dissertation work constituted an effort to integrate western adult developmental psychology with Indo-Tibetan Buddhist contemplative psychology. Indo-Tibetan contemplative psychology has distinct theory and practice that explores the depths of consciousness, metacognitive awareness, and realizations of emptiness well beyond the mindfulness paradigm used in most contemporary "contemplative science" research. This paper is a collaboration between
Churchill and Murray to summarize the aspects of that longer dissertation paper that are of relevance to this special issue. The paper shows how contemplative psychology already contains a similitude of all of the major themes from modern developmental psychology, and it illustrates how components of the STAGES developmental model both align with the important dimensions of the traditions and how it can be used to further elaborate contemplative psychology.

8. **Antoinette Braks**, *Leadership Coaching Leads to Later Stage Development*. This paper explores a multiple case study based on the effects of a developmentally informed, transformative leadership-coaching methodology. Results, using the WUSCT assessment, indicate that after eight 90-minute coaching sessions over 12 months, 83% of the case study participants shifted a full stage, mostly from 3.5/Achiever to 4.0/Pluralist, while the other 17% shifted two stages, from 3.5/Achiever to 4.5/Strategist. The paper provides a thematic analysis of eight factors related to the STAGES model that expedite later-stage development in leaders and distils an emergent Vertical Development Theory.

9. **Jason Miller**, *Finding Truth Within: Exploring the Importance of Reflective Practice in Deepening Self-Knowledge*. This research studied the relationship between developmental levels and reflective practices intended to lead to deeper self-understanding. It assessed 18 director-level leaders working within a state healthcare organization who were enrolled in an eight-week leadership development program that included reflective practices. Shortened versions of the STAGES SCT, journaling, and survey questions were employed. A strong relationship in the predicted direction was found between developmental level three factors: (1) the extent to which the subject engaged in the reflective activities (2) the self-knowledge they gained, and (3) the types of content they reflected upon.

10. **Lisa Buckley**, *Hope Examined Through a Developmental Stage Perspective*. This article is a short summary of a PhD research proposal.

**STAGES Model New Research**

Moving from the application of the STAGES model to researching the model itself, in addition to the "Research Summary" article above, we include several specific empirical studies (and see our first major study published in *Heliyon* journal in March 2020, mentioned in the summary article).4

11. **Terri O'Fallon**, *STAGES Child Research: Preliminary Report*. This paper gives a short glimpse at in-progress research using a new inventory designed for assessing developmental levels of children, which was administered to 53 children ages 4-13. It is the first study applying the sentence completion method to young children (performed using transcriptions from face-to-face verbal interviews).

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12. **Tom Murray**, *Investigating the Validity of the Ogive Aggregation Method, Including the Use of Rasch Analysis, for the Sentence Completion Test and the STAGES Model*. This paper is a detailed report of a research study aimed at using item response theory and related Rasch modeling to extend the validation of the STAGES model from the prior focus on survey-level statistics to the level of per-item analysis.

13. **Terri O'Fallon and Tom Murray**, *The STAGES Specialty Inventories: Robustness to Variations in Sentence Stems*. This paper describes (1) six "specialty inventories" in development, (2) studies demonstrating internal consistency of the new stems, and (3) a general discussion of the robustness of the SCT to innovations in stem items and length.

### Other Uses of the STAGES Model

We include one paper here on other applications of the STAGES model, but we mention a number of other use cases not represented as papers in this issue (see "Other research and applications" below). In the STAGES research summary paper, we mention three other areas of use: *Marj Brit's Called by Love* ministry, the *Generating Transformative Change* program, and a computer-based automated scoring application.

14. **Trish Nowland, John Kesler, and Thomas McConkie**, *Integral Polarity Practice and the STAGES developmental model*. Nowland offers a reflective overview and commentary on an online dialogue featuring John Kesler and Thomas McConkie talking about the relationship between Integral Polarity Practice (IPP) and STAGES, with Nowland and Tom Murray as co-participants. Kesler is a theorist and activist in the field of interrelated internal, cultural and organizational/societal flourishing in a developmental context. Kesler developed and teaches IPP, a practice methodology that combines elements from voice dialogue, Genpo Roshi's Big Mind Process, polarity theory, and developmental psychology. Kesler has been in close collaboration with O'Fallon for about a decade, and the evolutions of their two models have strongly inter-informed each other. McConkie, a highly respected mindfulness teacher in his own right, is the only other person yet to be certified to teach IPP. The 90-minute dialogue, which can be found at http://bit.ly/stagesippvid (audio version at http://bit.ly/stagesipp1), is wide ranging, as summarized by Nowland. Nowland also includes reflections on her participation in IPP seminars and practice groups.

### Alternative perspectives

We have three contributions that give critical or alternative perspectives on the STAGES model.

15. **Roman Angerer**, *Luhmann’s Life Work and Tier Patterns: The Analysis of Differences and Contingent Patterns*. This work is a deep grammatological-developmental analysis of the major texts authored by Niklas Luhmann, one of the most important social theorists of the 20th century, who was a German systems theorist working at the intersection of sociology, social theory, philosophy, and cybernetics. Angerer draws from developmentalists and philosophers, including Hegel, Aurobindo, Peirce, Wilber,
Kohlberg, Fischer, and Cook-Greuter, to propose a mapping between grammatical structure, specifically word case (the grammatical functions of nouns and pronouns) and developmental altitude. The methodology is both complicated by and enhanced by the fact that Luhmann wrote in German, which has a richer case system than English. The analysis maps the progress of the complexity of Luhmann's writing (hierarchies in content and grammatical style) in an "Archeology of Knowledge" that reveals nested repeating patterns through the sequence of post-autonomous developmental levels. The grammatological analysis allows for fine-grained developmental categories that subdivide the 9–12 developmental stages defined in ego development theories. Angerer performs a qualitative and logical analysis of Luhmann's writing to propose a necessary sequence of language properties. He arrives at a sequence of levels with characteristics (and orderings) that differ somewhat from that prescribed in the Loevinger tradition, and specifically by O'Fallon's STAGES model, especially for the post-autonomous levels. These findings provide new tools for the critique, and ultimately the evolution, of ego development theories.

16. Thomas Jordan and Tom Murray, Deconstructing Developmental Constructs: A conversation. This article reports on an email dialogue between Jordan and Murray on aspects of the STAGES model that have come into question. The conversation focuses on the highest stages, including discussions of: whether any single-sequence holistic developmental model, such as STAGES, can capture the multiple related capacities that might develop independently; and whether the Metaware tier of the STAGES model (5.0, 5.5, 6.0, 6l5) includes the complex reasoning associated with 4.5/Strategist, or allows for a bypass of 4.5 into a more "spiritually sounding" world-view.

17. Trisha Nowland, STAGES - Methodological principles for future enactions. Nowland notes some uncertainties inherent within linear stage-theories such as STAGES. She inquires into how can the capacities of 4th person perspective, as described in the STAGES model (and in other developmental models), can be more explicitly (and recursively) applied to the processes of STAGES assessment-scoring and STAGES theory-creation. The article suggests that developmental assessments need to include information about the perspectives and possible biases of the scorer. This is in order to be compatible with modern qualitative research methods that explicitly (transparently) describe the researcher's social and cultural background, context, and philosophical/ideological/methodological commitments (or assumptions) – as are intended to improve the "social trustworthiness and dependability" of the reported results. Nowland also discusses the centrality of one's embeddedness within a matrix of relationships in describing human nature and human development; and suggests models such as STAGES could benefit from a more explicit treatment of these relational structures.

Other Research and Applications

In this issue’s "Summary of STAGES validation research" article, we include a section called "Face validity: STAGES applications" that describes a number of uses of the STAGES model
that are not represented in this issue's articles. These uses include five additional dissertation and thesis projects that use the STAGES model:

**Eric Reynolds**, "Next-Stage Organizations: A Transdisciplinary Case Study." The goal of this research was to study the relationship between individual and organizational development and transformation by ascertaining how a Founder/CEO’s development informs that of their organization – particularly in leaders or organizations characterized by the post-formal/post-conventional logics that seem necessary to navigate the complexities of contemporary leadership challenges.

**Jani Attebery**, "Regenerating Soil, Soul, and Society: Garden-Based Sustainability Pedagogy for Incarcerated Adult Learners." (Completed PhD research.)

**Jimmy Parker**, "STAGES of Organizational Development." This paper reflects on the state of the art in assessing development at the organizational level and describes the advantages that the STAGES assessment has in that domain. Parker is working on a PhD research project that will apply these ideas.


**Steve Schapiro and Abigail Lynam**, "Transformations in ego development and intercultural sensitivity in graduate students." (A soon-to-begin longitudinal study of PhD students in a human-development and organizational-development program at a US graduate school.)

As mentioned in this issue’s article entitled "The STAGES Specialty Inventories: Robustness to Variations in Sentence Stems," "specially protocols" are being developed in a number of areas, most of which will lead to research projects. These protocols include (1) six specialty inventories that have had their reliability validated psychometrically based on leadership and organizations, love, education, psychological reflection, climate change, and a children's SCT and (2) several in-development (not yet validated) inventories based on relationships, religious beliefs, spiritual growth, money, hope, dementia, ethics, and parenting.

**Notes on the Global Context**

This is the first issue of Integral Review to be published after the start of the Covid-19 pandemic—less than two months after it became a clear international concern. As I write, it is all anyone seems to be thinking about, for good reason, and it did not seem proper to release this issue for publication without mentioning it. The givens of our world are now put into a stark uncertainty, and it is impossible to imagine the context within which the reader, two weeks or two years form now, will interpret the articles this issue contains, as they were all submitted over the last year, before any of this was imagined. Will academic articles in journals still have any relevance? Will there be a free and accessible Internet delivering them? I must make an earnest if feeble attempt to set the offerings of this issue within that context—knowing that in such times...
any gesture to carve relevance or import from the field of uncertainty is tenuous at best, foolhardy at worst.

STAGES, as a theory and as a body of teachings promulgated by O'Fallon and Barta in their workshops and writings, is, more than any other adult developmental theory, explicitly concerned with the psychological shadow work of "cleaning up," with "waking down," with spirit and soul, and with the health and integration of the earlier levels of development within each of us. All of the major theories touch on this territory, but the STAGES body of work uniquely emphasizes this aspect to balance the "waking up," and "growing up," and increased complexity discussed in all developmental theories.

The pandemic highlights these things about our world: the degree to which our social systems are fragile and interrelated; the degree to which people depend upon each other; and how much stands in the balance in people being able to access the simple resources of compassion, care, tolerance, trust, generosity, flexibility, and openness—in times of great uncertainty and stress. Such times highlight the need for complexity or sophistication in our meaning-making, and for putting complexity aside to allow the simple directives of the heart and the senses to guide our responses. It is my hope that this issue focused on the STAGES model will be helpful in guiding theoretical innovations and practical implementations of adult development as they search for the right balance and integration of the "ascending" growth-related approaches and the "descending" healing-related approaches. Surely wisdom about the interplay of complexity vs. simplicity in human cognition is one of the tools we will need to meet each other on the other side of any of our current global crises.

Notes on Multiple Interests and Independent Research

For disclosure of multiple interests, it should be noted here that the editor of this issue has close professional and business ties with O'Fallon. Though the bulk of my scholarly writing and empirical research within the broader integral-developmental community is without any direct compensation, I have been hired as a research scientist and paid for one-tenth of my research and development work related to STAGES. Nevertheless, I perform nine-tenths of that work as an enthusiast for adult developmental science, and for the STAGES model. In addition, any such work has a potentially positive impact on my own business and consulting profession (www.stagelens.com). Therefore, the issue you are reading was compiled in a context of implicit and explicit bias in favor of the STAGES model. As a long-time research scientist who has also published in the areas of epistemology, appreciative critique, and the philosophy of method, biases from my enthusiasm for STAGES are strongly modulated through my role as a scientist and critical analyst.

Two converging global trends in scientific discovery are worth mentioning here. First, the objectivity of the scientific method, even in the once-thought-pristine halls of academia, is under intense critique for many reasons that the reader is probably familiar with (see Latour, 2005; Ioannidis, 2005; Bhaskar, 1975). Subtle bias of multiple types is seen to creep in at every corner; while exactly how disabled that leaves the scientific method is debated. Second, more and more important research seems to be conducted outside the walls of traditional academic or government organizations, often in contexts linked to business interests. The needs of running a
business, or even the needs of promoting one's ideas in the mimetic "marketplace" of scholarship, are often in tension with the need to be objective in scientific research and reporting. Indeed, these tensions are ubiquitous in scientific research in general (Walker et al., 2015). Scholars within the "integral diaspora" (a term coined by Bonnitta Roy) are particularly likely to be "independent scholars" publishing without compensation.

Though outside-the-box funding introduces many sources of bias – as is well known by those working within integral-developmental scholarship and within any area that appears "fringe" from the perspective of conventional academic and institutional world views – the most innovative work often gestates well outside the walls of traditional institutions. We can acknowledge that, aside from bias that might come through the commercial entwinements of funding sources, even in labor-of-love projects (which to date account for 90% of all research efforts in STAGES research and development) the motivation that leads one to spend significant time on an unpaid project implies a type of enthusiast's bias.

Thus, in STAGES research, I do (and other authors may as well) acknowledge that there will be tensions between the objective reporting of scientific "facts" and the desire to promote, publicize, and extol the value of the STAGES model. One antidote for bias is a rigorous empirical study, such as the psychometric analyses we report herein. As the scientific method is not without its sources of bias, we ask the community to "keep us honest" in this regard through critical appraisal and frank feedback. From an integral, trans-rational perspective, we eschew simplistic notions of "objectivity" and "proof" to address the practical nuances and tradeoffs, and see these tensions in terms of ongoing processes and "polarities to be managed" rather than "problems to be solved." This requires ongoing feedback from many types of stakeholders and ethical oversight from outside parties. Many articles in this issue were peer reviewed, which defends against bias only to the extent that the community of reviewers is unbiased, which is an ideal never completely realized.

We can use our own models to note that these issues in scientific inquiry are developmental in nature. Any second-tier, post-rational, or post-metaphysical (Murray, 2019) approach to science implies a nuanced treatment of the indeterminacies and biases that operate on personal and transpersonal levels in any inquiry into the truth (and see Nowland's article in this issue addressing related issues). I include this subsection on multiple-interests because I believe that published science can no longer pretend to be "objective." This is well established in qualitative research methods, but quantitative studies less frequently try to be transparent about potential sources of bias. It has become de rigueur in qualitative, "critical," and "postmodern" scholarship to, for example, reflect on how one's identity status (gender, race, socioeconomic, cultural, etc.) might lead to biases. Perhaps a next and more difficult step is to include a bit more specific and personal sources of bias; and to include all such reflections on the "indeterminacy" of conclusions, in quantitative studies as well.

References


States and STAGES: Waking up Developmentally

Terri O'Fallon, Ph.D.¹

Abstract. For millennia, the great traditions have influenced our understanding of the states of consciousness that we encounter. More recently, models for assessing meaning-making in developmental terms have been proposed. One example is the STAGES model, which measures human perspectives that behold content differently at different developmental levels. Several scholars have attempted to connect states with developmental stages by studying their relationships, for example, using the Wilber-Combs Matrix. This article traces the history of theorizing about the relationship between states and stages and shows an evolutionary view that examines states through the developmental perspectives of stages. This approach suggests that we can trace state phenomena through developmental stages, with state and stage development affecting each other in an interpenetrative fashion.

Introduction

In 2010, I wrote a peer-reviewed paper for the Integral Theory Conference titled The Collapse of the Wilber Combs Matrix, in which I traced a history of theorizing about the relationship between states and stages, noting several configurations between them. This paper was updated in 2018, and provided, what I felt were the most relevant aspects of these relationships, however both versions of the paper ended with the question, “What is the next evolutionary version of the relationship of stages with states?” In the pages below, I trace an “either/or” version of this question to a "both/and" version. This paper extends these previous understandings by adding an "interpenetrative" theory that is supported by preliminary research and an evolutionary understanding of how the relationship between states and stages matures over time. The term interpenetrative here means that each construct (in this case states and stages) co-defines, co-creates, and/or co-emerges with the other. Embedded in this preliminary theory is an evolutionary underpinning of the unfolding of states and stages, where each requires the other in this evolving relationship.

This paper includes five parts:

Part 1: "Laying the Landscape" describes a history of the evolution regarding how states and stages are related as well as the proposed theory of the evolutionary interpenetration of states and stages.

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Part 2: "Setting up the Inquiry" establishes a research approach to support this inquiry, which shows the importance of selecting the appropriate subjects for this research and how this affects the results.

Part 3: "Preliminary Research" provides the evidence I have so far to delve into the theory of how the stages and states interpenetrate and how this relationship evolves. This section includes brief descriptions of the research that has been conducted to support this theory.

Part 4: "Getting more Granular" includes:
A. The definitions of the words “states” and “stages.”
B. The trajectory of states that are in the developmental levels.
C. The fundamental areas that states and stages have in common:
   1. phenomena
   2. the self
   3. space
   4. time
D. The confusions that both hinder and support the development of a state to a stage.
E. Three repeating tenets that tie states and stages together into interpenetration:
   1. Necessary but not sufficient
   2. The confusions
   3. Turn it back on yourself.

Part 5: "The Interpenetrating of States and Stages" regards a step-by-step description of the outcome of these discoveries gleaned from the research that is described in Part 1.
A. A description of what state is necessary but not sufficient to move from one stage to the next stage.
B. A description of relevant confusions at each stage.
C. Describing what one must do with the state in order to advance to the next stage and what must be done with the stage to advance it to the next state.
D. Putting it all together: A preliminary and evolving theory of the interpenetration of states and stages.

Part 1: Laying the Landscape

Prior Theoretical Models

Spiritual states have been recognized across many traditions for millennia, however developmental stages have first gained recognition in the later part of the 18th century, including the early research of James Mark Baldwin (1901) who began his studies in theology.

Even earlier, Darwin (1859) had proposed his (atheistic) principles of evolution which were controversial in many religious paths. However, Baldwin’s early teacher James McCosh was a proponent of both evolution and how it could be applied to Christianity (Wikipedia entry for James McCosh). This perhaps represents some beginning roots of considering the relationship between states (handed down from the great traditions) and stages, which began to highlight an
evolutionary process of human development. Thus, while relatively new, this inquiry has grown from these early roots.

As developmental stages became more prominently recognized, more and more developmental models arose. Wilber (2000) has mapped over 100 of them and has been a main spokesperson about how states and stages relate to each other (2006).

In his first explanation of the relationship between states and stages, he describes several prior models that stack the great states onto the latest understanding of stages (Wilber, 1995). This prior understanding of structure stages having subtle and causal structures being stacked on top of the basic stages can be viewed as an “either/or” choice. Wilber traces this perspective through several philosophic views (Wilber, 1995, pp. 343-345), with Figure 1 showing a summary below:

![Figure 1. Either Structure Stages or State Stages.](image)

This description of the relationship between structure and state stages continued to develop over the years and eventually evolved to become a “both/and” description. Wilber describes this advancement from the earlier one shown above:

And so typically what we did was simply take the highest stage in Western psychological models – which was somewhere around SD’s Global view, Loevinger’s integrated or the centaur – and then take the 3 or 4 major stages of meditation (gross, subtle, causal, non-dual – or initiation, purification illumination, unification) and stack those stages on top of the other stages...It was a start – at least some people were taking both Western and Eastern approaches seriously – but problems immediately arose. Do you really have to progress through all of Loevinger’s stages to have a spiritual experience? (Wilber, 2006, pp. 88-89)

The shift from the "either/or" view to the “both/and" reciprocal view between structure and state stages is illustrated below in the Wilber (2006) Combs (2002) Matrix.

Wilber and Combs separately developed versions of this reciprocal model (Wilber, 2006), which posits that the great states (gross, subtle, causal, and non-dual, which are relatively representative of many of the great spiritual traditions) are available at all stages (see Wilber, 2006, p. 88).

This theoretical model places the states horizontally and the stages vertically in an orthogonal configuration. This allows us to hypothesize that you can have all the great states at any stage, however the states will be interpreted through the lens of the developmental level in which they
arise. The horizontal states and vertical stages are in reciprocity (both/and) with each other (O’Fallon, 2010; 2018).

![Figure 2. The Wilber-Combs Matrix: a “both/and” model.](image)

Diperna (2014), who proposes a more granular and complex model called the Spiritual Developmental Cube (p. 122), adds a third dimension to the Wilber-Combs Matrix. He views the vantage point “states” as the “knower,” the developmental stages as “knowing,” and adds states/realsms in which the events arise, change, and pass away (the known) (p. 123). The gross, subtle, causal, and non-dual vantage points are described in a more granular form and shown as horizontal, while the stages are depicted as vertical.

The most recent approach that I have encountered is Integral Polarity Practice (IPP) envisioned by John Kesler, who was one of the original members of the STAGES research team.

John explains his model:

IPP essentially holds that states, stages, types and more, as deeply interpenetrating and beyond that: are different manifestations of the same thing which all show up in five themes: Ground, gross, subtle, causal and integrated [in an evolutionary direction] or Ground, causal, subtle, gross integrated [in an involutionary direction]. . . . IPP is grounded in the full range of states being inherent in every stage in both a horizontal and vertical sense, and so for instance in the physical or physiological realm being deeply relaxed is a concrete causal realization, being mentally and emotionally calm is
a subtle causal realization, and experiencing deep tranquility is an even more subtle or causal manifestation of the causal. This is another example of how states have important vertical implications relating to each stage, and all of these are on the form or fullness side of the causal and there is an emptiness side to all of those which is simply empty. (Kesler, personal communication, April 2, 2020; and see www.theippinstitute.com)

Kesler’s IPP seems to add more granularity to the preceding models and additionally integrates emptiness and fullness within while using both states and stages. This seems to represent an integrative model which points to the evolutionary interpenetration that I am curious about.

In summary, while seeking a next possible model, I wondered: Is there an evolutionary trajectory to the relationship between states and stages, where states can also be found to be developmental as well as horizontal?

When considering the trajectory of perspective taking, we begin with the concrete, subtle, and metaware perspective of “either/or” (the stacking model), then move to the concrete, subtle, and metaware person perspectives of both/and (the Wilber-Combs matrix (2005) and the more granular Diperna (2014) Integral Cube model, and finally the concrete, subtle, and metaware person perspectives of Kesler’s updated IPP model. Viewing from the STAGES model, we can posit that there could be another interpenetrative theory that has not yet been explored.

**The STAGES Model**

There are many developmental models to utilize when examining the relationship between states and stages. In this inquiry, we use the STAGES matrix as the developmental model for several reasons: Firstly, it has specific repeating parameter patterns that define each person perspective. Secondly, it spans development from birth to the latest researched stages, which allows us to view these repeating patterns through concrete developmental levels, the more common adult subtle developmental levels, and the later metaware developmental levels. Thirdly, this model is supported by peer-reviewed replicability research (O’Fallon, Polissar, Neradilek, & Murray, 2020), longitudinal research (O’Fallon & Murray, 2020), word studies, and descriptive qualitative studies which include both states and stages. Most importantly, the replicability study provides evidence for the validity of three parameters of the STAGES model, one of which is the process trajectory of receptive, active (either/or), reciprocal (both/and), and interpenetrative. This process leads to the interpenetration of states and stages and our inquiry, “Is there an interpenetrative version of the relationship between states and stages?”

The qualities of the STAGES Matrix, supported by research, provide useful fodder to compare states and stages from an interpenetrative perspective and are informed by Wilber’s (1995) AQAL model (individual/collective; interior and exterior quadrants, the zones, developmental levels, and states). The matrix integrates all of this with the Loevinger ego development lineage (Hy & Loevinger, 1996; Cook-Greuter, 1998; Torbert & Livne-Tarandach, 2009).
The STAGES Matrix defines the 12 person perspectives (PP) using three questions: What are the phenomenological objects that arise at each tier? Does the person lean more into an individual view or a collective view? What is the trajectory of the learning process (receptive, active, reciprocal, or interpenetrative) represented by repeating zones?

In addition, STAGES (and all ego development models in the Loevinger lineage) focus on “Who am I?” This question particularly arises at the 1.0, 3.0, and 5.0 developmental stages articulated in the STAGES Matrix below and is also a fundamental question often posed in state practices. Figure 3 shows a summary of this model.

Figure 3. The Stages Matrix: An Interpenetrative model.

To understand the rest of this paper, it is important to observe that in the STAGES Matrix, each stage represents a “perspective”. The first column in the matrix above shows the person perspective (PP) of each stage. Each perspective has a combination of three parameters that is distinct from every other perspective (the second, third, and fourth columns). Each PP is defined by the number in the PP column (1.0, 1.5, 2.0…). There are repeating patterns in this matrix, wherein each tier mirrors the previous and only the phenomenal objects, represented in the first “tier” column, change from concrete, to subtle, to metaware. Of special interest, the fourth column specifies when the either/or (active), both/and (reciprocal), and interpenetrative perspectives arise.
The STAGES model innovates over prior developmental models in the same lineage by specifying a small set of underlying parameters (dimensions) that lead to the unfolding of development (i.e., the three questions in the figure). In addition, compared to prior models, STAGES includes additional details about the earliest and latest stages (i.e., 1.0, 1.5, 2.0, 2.5; and 5.0, 5.5, 6.0, 6.5). This level of detail over a fuller range of the developmental spectrum allows us to notice foundational repeating patterns that would have been difficult to observe in prior models. This new theoretical model has been provisionally but strongly validated through a number of studies. For research on assessing STAGES developmental levels, see The Validation of a New Scoring Method for assessing Ego Development Based on Three Dimensions of Language (O'Fallon et al., 2020) and several research reports appearing in this issue.

In our exploration of the question, “How do states and stages interpenetrate?” we can begin by testing a theory that seeks two things: “Are certain states required to move into new stages?” and “does stage development propel the arising of new states?” This theory assumes that the previous models (based on either/or and both/and logic) are correct but that they may include insufficient detail regarding the whole developmental span required to form an interpenetrative model.

**Part 2: Establishing the Inquiry: Proposing Research for an Interpenetrative Theory of Stages and States**

**Research Viewing Stages through the Frame of states**

Various research studies have probed the relationship between developmental levels and state attainment. Some of this research has been conducted by examining development through the eyes of horizontal states in relationship to development. This approach addresses the question, “Is there a relationship between one’s spiritual attainment and their developmental level?”

To answer this question, a researcher would select a population of people who demonstrate designated states or are receiving state training, give them each a developmental inventory, and observe whether there is a relationship between their state attainment and their developmental level. This research thus far seems to indicate that there is little or no relationship. Spiritual practitioners with prominent state development seem to score, developmentally, all over the map. This research supports the Wilber-Combs and Diperna views that there is little or no relationship between state attainment and stage development. Concerning the view of horizontal states, these elegant approaches are correct and supported by research.

However, I am interested in another method to establish a research study using a question about this relationship: “What are the states that arise at each developmental level?” To answer this question, you would need to select a different population, of people who have already been tested developmentally, and then observe which states occur at each developmental level. The notion of vertical state development arises in purely state-based models (the great traditions) and are clearly described by Wilber (Wilber, Engler, & Brown, 1986; Wilber, 1983; 1991; 2006) and Diperna (2014) in their writing. However these theoretical models depict states as horizontal. Is there a theory highlighted by research that relates to how stages and states interpenetrate? This would require vertical states to interpenetrate with vertical development and still allow the
possibility of horizontal states and horizontal stages. In other words, a model like this would transcend and include both the either/or models and the both/and models. Delving into this question could add supportive research to Kesler’s IPP model. It represents the approach I utilize to support this theory.

Part 3: Preliminary Research: Viewing States through the Developmental Frame

This section includes a summary of the research that my colleagues and I have conducted over the past years to support a vertical view from the developmental levels and the states that naturally seem to arise at each level.

**Early and late research.** Using the STAGES developmental model, I have collected data on the developmental perspectives of humans from age around 4 years old at the 1.5 developmental level through the latest 6.5 developmental level. This included regular inventories that we score daily which mostly score at 3.0 Expert through 6.0 Universal and includes participants in the Generating Transformative Change program who scored approximately from the 3.5 Achiever stage to the 5.5 Transpersonal stage. The child research project, supported by the Brisbane Independent School in Australia, provided information from the 1.5 through the 2.5 developmental levels. We also conducted a study on the levels of the MetAware tier: 5.0 Construct Aware, 5.5 Transpersonal, 6.0 Universal, and 6.5 Illumined (O’Fallon et al., 2020).

The STAGES research thus includes the developmental levels from 1.5 through 6.5 (comprising eleven levels, as babies are too young for reliable research on their “perspectives”).

Using this kind of span, we can perform quantitative and qualitative research at each developmental level and observe what they have in common, including states.

**Longitudinal research:** Fifteen years ago, I also initiated an ongoing longitudinal study of participants in the Pacific Integral’s “Generating Transformative Change” program. In addition, I have been following a number of people who have scored in the MetAware tier and have performed retakes of their inventories several times. This research shows people’s stage-to-stage trajectory from 3.0 Expert through 6.5 Illumined. The MetAware research supports this movement from stage to stage in the MetAware tier stages from 5.0 Construct Aware, to 5.5 Transpersonal, to 6.0 Universal, to 6.5 Illumined.

**Word Studies:** I also provided data for two research studies that responded to the question: “What are the prominent words that arise at each developmental level? The first research study, which I conducted, used 275,000 words in our developmental database, and four years later the second study conducted by Tom Murray covered 1.1 million words. Although there were minimal differences between these two studies, they confirmed that common state words (and their synonyms) consistently arise at particular stages. These include “focus/concentration” at the third person perspective; “aware” at the fourth person perspective; aware of aware (and synonyms) at the fifth person perspective, and “timeless and boundless” (and synonyms) at the 6th person perspective.
Qualitative Studies: In addition, I completed qualitative research on approximately 3,600 sentence completions on a specialty inventory on love, supported by Marj Britt. This research included every developmental level and supported the meaning of the developmental spiritual words that arose in the above word study. The descriptions that this research provided were close to the same descriptions of many of the traditions.


Although these studies are not exhaustive, they support experiential reports and literature reviews of commonly accepted definitions of states and stages and their intersection. The combination of these studies allows us to make meaning across them all to begin to respond to the question, “What states arise at each developmental level?”

Part 4: Getting More Granular

A broader examination of the research projects and larger question can provide a useful overview of the roots of this preliminary evolutionary theory regarding the interpenetration of stages and states, but as is often mentioned, “the devil is in the details.” We would want this theory to have an adequate overview that makes sense along with a more granular process that would support views ranging from a drop of water to the entire ocean. We thus begin with definitions.

Definitions

To establish a research project to respond to the question “What states arise at each developmental level?” several preliminary questions must be answered.

1. What is our definition of “stages” (perspectives)?
2. What is our definition of “states?”
   Cognitive/mind-based “views”
   Sensory, emotional-based experiences
3. What do states and stages have in common?
4. What is the definition of unification.

Definition of “Stages”

We define stages as successive developmental perspectives which each transcend and include the previous perspective. Robert Kegan employs a similar definition in his subject/object research: “The subject of one stage becomes the object of the subject of the next stage” (Kegan, 1994).
Definition of “States”

We provide two “state” definitions, with the first relating to emptiness and the other to fullness.

First, we define mind-based states as temporary, successive vantage points from which one views levels of reality, and these states gradually mature until they become a permanent “state stage.” Each vantage point transcends and includes the previous ones. These states increase capacities to utilize later and later views, and their viewing position is generally considered to be “empty” (while of course viewing objects that represent fullness). This indicates a vertical development of viewing or vantage point states.

Second, we define body-based, sensory emotional experiences such as temporary experiences of love, elation, gratitude, awe, fear, sadness, jealousy, etc. These states often form the basis of happiness or misery, and the positive states can be cultivated. Our research shows that these emotional states "grow up" as well (examples include concrete experiences of happiness, subtle experiences of elation, and MetAware experiences of a refinement of ecstasy). These states are felt in the body and often represent aspects of fullness.

These definitions have a common “transcend and include” evolutionary nature to them. This research utilizes the vantage point states since they represent the emptiness side of the states. The body-based states are not specifically tracked but are part of the fullness or “relative reality states” (which arise inside of the emptiness states).

Definition of Awakening/Unification

Awakening concerns the unification of all emptiness and fullness of all available objects currently found in the latest stages and stages that humanity can access. A more granular description shows what states and stages have in common related to emptiness and fullness: phenomena (fullness) with the emptiness of phenomena (emptiness), self (fullness) with the emptiness of a self (emptiness), space (fullness) with the emptiness/boundlessness of space (emptiness), and time (fullness) with the emptiness of time (emptiness). A form of awakening can occur any time after one has experienced the necessary developmental forms of concrete phenomena, space, self, and time (see Table 1 below). However, full awakening would include the interpenetration of all possible vantage points along with all the developmental stages that have thus far evolved in humanity.

States and Stages: Common Tenets; What are the fundamental areas that states and stages have in common?

As we examine the knowledgebase of states and stages, it is helpful to determine whether we can simplify to the most basic areas that both might have in common. Based on my preliminary studies, four areas seem to be in common, and states seem to be a mirror to the stages.

1. **Phenomena.** Both states and stages recognize and apprehend *phenomena* (objects) from their own views. In the STAGES developmental trajectory, research supports concrete objects, subtle objects, and MetAware objects.
In the states trajectory, there are similarly states that hold *gross phenomena, subtle phenomena, and very subtle phenomena*. These phenomena have been previously defined in different ways depending on the tradition’s particular definition, however they essentially mirror the opposite of relative phenomena: emptiness of concrete phenomena, of subtle phenomena, and of metaware phenomena. These kinds of states can occur horizontally (i.e., they arose before development was recognized). As a tenet of this theory, we utilize these states developmentally (as above) rather than horizontally.

2. **A Self.** In the developmental spectrum, we experience different levels of an ego: a concrete self, (our physical body), a subtle self (our identity beyond our physical body such as an authentic self), and a metaware self (identity as “conscious awareness”).

We also apprehend the mirror opposite: the absence of a physical self, absence of a subtle self, and the absence of any form of self, which have been referred to as various forms of “no-self.” These are a mirror to the ego selves that develop in the stages and represent the emptiness aspects of state views.

3. **Space:** In the STAGES developmental trajectory, a sense of space begins when a baby is about 6 months old, when their eyes begin to mature and synchronize to result in depth perception. Beyond that, the experience of space develops when one becomes aware of boundaries, firstly regarding physical boundaries at 1.0 and 1.5 after depth perception occurs but more importantly the boundaries that rules provide, which arise for the first time at the 2.0 Rule Oriented stage. These morph into subtle boundaries and the MetAware boundaries of infinity (infinity arises earlier but not in relationship to eternity).

In the states vantage points, one experiences the mirror opposite: the emptiness of concrete spaces, subtle spaces, and very subtle spaces where boundlessness arises on the other side of boundaries.

4. **Time.** In the developmental spectrum, we experience “in-the-moment” timelessness at 1.0 Impulsive and 1.5 Egocentric. About halfway through the 2.0 second person perspective (at about age 8), we experience an understanding of clock time of the past for the first time due to a consolidation of memory capacity. A sense of time continues to develop through the subtle understanding of time such as the future and a Metaware understanding of eternity (eternity is accessed earlier, but an understanding of its relationship to space has not yet arisen).

From a state perspective, children are in oceanic “in the moment” time until about age 8. At this age, they begin to perceive a “past” due to the development of memory (stable visualizations + self-talk), and once ensconced in time, they can theoretically discover timelessness on the other side of time.

Anyone who has this first understanding of time can hypothetically experience the timeless (which is an empty mirror of time) sometime during the second person
perspectives but not earlier. We thus posit that a baby or toddler cannot “awaken” since they still lack the understanding of socially constructed time and thus cannot unify time and the timeless.

**Stage and States Mirroring**

The table below shows the mirroring between stages and states as they occur in the STAGES concrete tier.

**Table 1. Relationship of Stages and States in the Concrete Tier.**

<table>
<thead>
<tr>
<th>Birth experience (phenomena are out of consciousness)</th>
<th>Developmental Trajectory of Phenomena</th>
<th>State trajectory Formless/emptiness</th>
<th>Unification of columns 2 and 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>No conception of objects -&gt;</td>
<td>Phenomenal Objects (1.0) -&gt;</td>
<td>Object-less on the other side of objects</td>
<td>Phenomenal Objects + formlessness of objects</td>
</tr>
<tr>
<td>No conception of self -&gt;</td>
<td>A Phenomenal self (1.5) -&gt;</td>
<td>Selfless on the other side of self</td>
<td>Self + selfless</td>
</tr>
<tr>
<td>No conception of space -&gt;</td>
<td>Phenomenal Space (1.0, 2.0) -&gt;</td>
<td>Boundless on the other side of the bounded</td>
<td>Space + boundless</td>
</tr>
<tr>
<td>No conception of time -&gt;</td>
<td>Phenomenal Time (2.0) -&gt;</td>
<td>Timelessness on the other side of time</td>
<td>Time + timeless</td>
</tr>
</tbody>
</table>

If you cannot apprehend a sense of the emptiness of objects until you have the capacity to identify objects; if you cannot apprehend the emptiness of self until you have a self; if you cannot apprehend an experience of the boundlessness of space until you first have a sense of boundaries/space; and if you cannot apprehend an experience of the timeless until you experience time, then it would seem that you must have a developmental experience of objects, self, the bounded, and time before you can transcend them into the understanding of formlessness/emptiness. Once you achieve an understanding of a full self (the second column in the diagram above), you can begin to see its formlessness/emptiness (the third column). However, various kinds of unification arise when combining these two columns, which is not possible in this theory when only the first column exists.

If we define unification as the interpenetration of relative phenomena (developmental stages) and formless emptiness, it seems that there must be some process where development and states require each other for interpenetration to occur. In this theory, fullness (the developmental reality of form and formlessness on the other side of form [empty state views or vantage points]) would combine into the wholeness of unification.

When activating our unification experiences, we observe that they include both form and the formless. However, state practices in the past did not recognize developmental levels of adults.
Research indicates that the cognitive complexity required to deeply understand human development does not occur until 4.5 Strategist, which is a relatively new stage culturally, which causes me to wonder, how easy would it be to recognize interpenetrations of states and stages if you only had an understanding of states but not stages?

From the developmental side, we have recognized form but have not considered the trajectory of the hidden states through 12 developmental levels to determine how states might contribute to stage development, because it seems that the first 8 STAGES do not need to apprehend an experience of the “empty formless viewpoints” in order to continue to develop. Many people never arrive in the MetAware tier, where the trajectory of developmental vantage point views begins to display. Nonetheless, although they may form a hidden support for developmental growth, they may not be recognized as such.

This preliminary evolutionary theory of the interpenetration of states and stages concerns the developmental trajectory, where states are required at each stage to develop from the early life of young children through the latest researched level of 6.5 Illumined.

**Looking at the relationship between stages and states from the view of each tier**

We pose a series of questions below that motivate our discussion in the following sections.

*The Concrete Tier interpenetration of States and Stages.* From the above theory, we can posit that specific stages are required for these four empty/formless vantage point (view) states to arise in the concrete tier (see Table 1). However, there is a new question to consider, “Are there some states that the concrete stages require in order for the next concrete stage to occur that are not considered in the lineup of the great states (gross, subtle, causal, and non-dual)?”

*The Subtle Tier interpenetration of States and Stages.* Our research points to the understanding that the emptiness of phenomena, the emptiness of self, the boundlessness of space, and timelessness can arise at each of the subtle tier stages and are interpreted by the stage perspectives in which they manifest (the Wilber-Combs Matrix both/and model). However, is it possible that under the radar of the Wilber-Combs Matrix, certain states must arise in order for the next stage to mature?

*The MetAware Tier interpenetration of States and Stages.* MetAware longitudinal research studies highlight the necessity of a state for entry into the next stage. However, in this tier is it also possible that certain stages are required for the full manifestation of unification at the leading edge of developmental consciousness (all states and all stages)?

**Summary:** Our research and preliminary theorizing show the necessity of states for stage development in all three tiers as well as the necessity of stages to occur in order for the next vertical state to develop in all three tiers.
Part 5: The Interpenetration of States and Stages

The STAGES model shows that our capacities progress from receptive (one concept at a time), to active ("either/or," where one idea predominates), to reciprocal ("both-and," where the concepts have equal importance and we consider their interrelatedness), to interpenetrative ("one-within the other," where we see how the concepts co-define and co-emerge). We can posit that theories and models evolve along a similar trajectory of complexity. We noted how the Wilber-Combs matrix represents a "both-and" representation of states vs. stages, where each is separate and equally important, as a key advancement over prior "either-or" interpretations. Our model attempts to proceed to an interpenetrative interpretation of states and stages, whereby each is viewed as an integral component in the development of the other.

Although these theoretical suppositions may be interesting, how would they work on a granular rather than orienting generalization level? What existing research supports this process, which state fuels the next stage, and which will create the next state that will be necessary for the ensuing stage to occur?

The triangulation of the quantitative longitudinal study, the 1.1 million word study, and the qualitative studies that categorize the experiential descriptions that arise at each stage provides preliminary evidence that states are required to grow our developmental perspectives and that developmental stages are required for full unification states (if they are to include all relative reality available in all stages rather than merely part of relative reality). I have used these research studies to begin to document the states that arise at each developmental perspective. Of all these studies, four tenets have emerged that seem to contribute to this preliminary theory.

Four tenets that repeat to provide the interpenetration between Stages and States

In our theory, we extend the concept of "state" beyond those associated with spiritual or contemplative practices through all the developmental levels. In this way, basic capacities such as the ability to visualize or to notice one's own thinking process are also states.

1. States are necessary but not sufficient for moving from one developmental level to the next.

   For example, visualization is a necessary state for the 1.5 Egocentric to move into the 2.0 stage, but it is not sufficient since something else must happen first. Visualization at this stage is a "state."

2. Each stage transformation has at least one primary confusion that must resolve in order to mature to the next developmental level.

   For example, the 1.5 Egocentric must overcome the following confusion: Visualization as a state does not recognize the difference between seeing on the inside (visualization)
from seeing on the outside (observing with physical eyes). This represents a confusion that they need to address and grow through in order to progress to the mature part of 1.5.

3. To advance to the new stage, the view capacity of a particular state must be turned toward answering the confusion. Shining the light of that state onto the conundrum allows the confusion to resolve into clarity and the state to grow into a mature and stable person perspective stage.

For example, once the 1.5 has achieved this differentiation, they can use visualization as a tool since it is a fundamental part of the final mature 1.5 stage. Visualization (separated from “seeing” with one’s exterior eyes) has become a state stage that is married to the final 1.5 structure stage.

4. Likewise, in order to “flip” from a stage into the next state which initiates the next stage, one must turn the present view of the mature stage back onto the self in order to reach the new state.

This allows the maturing 1.5 to transition into 2.0. They can adopt the perspective of someone else by turning their visualizations, like a mirror, back on themselves, allowing them to notice that the other person is looking back at them. “I see you see me” is the fundamental requirement of entering into 2.0 Rule Oriented, which is initially an orientating state that comes and goes, ushering in a second person perspective.

This first recognition of turning visualizations back on themselves and thereby seeing that someone else is seeing them is a “state,” which they cannot hold. This state is necessary but not sufficient to move into 2.5 Conformist, and this pattern repeats from one stage to the next and from tier to tier. These four steps are described in Table 2 below.

The next section details this theory of the interpenetration of stages and states and how it would function in a feet-on-the-ground application. I begin by covering the vertical states that are necessary but not sufficient for development to occur followed by the confusions that appear during transitions from state to stage. Lastly, I combine them into a matrix to show how these three areas integrate with each other to provide the developmental engine for transformation. It is important to note that I am using the STAGES developmental model in this theory.

**Viewing States Through the Developmental Frame**

States undergo a trajectory from gross, to subtle, to empty and to unification. States can be expressed both vertically (looking through developmental lens) and horizontally (through the lens of the Wilber Combs Matrix or Diperna's Spiritual Developmental Cube).

Below I have listed vertical states that seem to be required for development to occur at each stage. I arrived at these by accessing words often described in the traditions that landed solidly for the first time at each stage of development as determined by our 1.1 million word study. An example of one of these words is “awareness”. The descriptions were accessed through the qualitative research of sentence completions at each stage from 1.5 through 6.5. As I integrated
these two research studies, state categories began to emerge. These are the names I have given or borrowed for the vertical states that are required for the maturing of development at each stage in this theory.

In this trajectory of states, the states in italics are in the receptive and reciprocal stages. The developmental levels of the reflector “view” or “Vantage point” states are in bold letters, and are found in active and interpenetrative stages.

**States that are Necessary but not Sufficient for a Stage Transformation**

Below we list states that exist at each level, and are necessary (but not sufficient) for the transition to the next level. We note the capacities that manifest with successive person perspectives as sensing (1stPP), thinking (2ndPP), cognition (3rdPP), awareness (4thPP), and consciousness (5thPP); and we use the term meta (as in meta-thinking) to note the latter or active half of each person perspective. These words have many meanings and are used here as convenient handles; however their definitions are not necessarily the same as the conventional definition of the words, as they each regard a specific definition that relates to its relevant person perspective.

The reflector states are the “meta” experience that is mature. For example, sensing begins with exterior sensing, and meta-sensing concerns interior sensing such as visualization. I call these reflector states since the first immature state is required to reach the reflector state, which takes a “reflective view” of the preceding immature state.

1.0 **Sensing.** Receiving through the senses and early recognition of concrete objects/phenomena.

1.5 **Meta-sensing:** **Concrete Individual View (Reflector #1).** Visualizing and self-talk begin as interior senses that are disconnected from each other. Visualizing is reflecting on sensing: “I see me” and “I see you.” A concrete “self-identity” arises.

2.0 **Thinking:** Visualization and self-talk interpenetrate into concrete operations (Piaget, 1969). where a child needs manipulatives to reason. I see you see me (Fowler, 1989); I see you when you are not looking; you can see me when I am not looking. This “seeing” fuels rules, roles, and reciprocity.

2.5 **Meta-thinking:** **Concrete Collective View (Reflector #2).** This is formal operations (Piaget, 1969) which can adopt a reflective view of thinking. This allows them to reason without manipulatives and supports moral principles that are “us,” including reasoning about you as me and me as you. This prepares one to progress into the subtle tier.

3.0 **Cognition:** Abstract Cognition. This concerns focusing/concentration (zooms in) on subtle objects.

3.5 **Metacognition Subtle Individual View (Reflector #3):** This includes reflecting on cognition and regards subtle thinking about thinking, feeling, and their relationship to their own behavior.
4.0 **Awareness of metacognition:** This involves *zooming out* which allows seeing subpersonalities (each of which has thinking, feeling, and behavior), contexts, and complex adaptive systems.

4.5 **Met-Awareness + focus; Subtle Collective View (Reflector #4) (Zooming in and out)** This concerns the awareness of you being aware of me, of me being aware of you, of interior and exterior contexts and systems in me and you, of the trajectory of development in me and you and of projections. This prepares one to progress into the MetAware tier.

5.0 **Consciousness:** This allows the apprehension of highly subtle sensing (receiving subtle presence, attunement, meta-reflection, and projection in the moment and the integration of mind/body/spirit), the emptiness of word meaning, and boundaries.

5.5 **Meta-Consciousness- MetAware Individual Active View (Reflector # 5)** This regards the consciousness of awareness, which allows the seeing of the timeless and of the boundlessness (disconnected).

6.0 **Higher Mind:** This concerns the timeless/boundless integrated with meta-conscious relative reality.

6.5 **Illumined Witness: Meta-Conscious Collective View (Reflector #6).** A witness as a space illumines the interpenetration of the concrete mind, subtle mind, MetAware mind, and Meta-conscious mind along with the concrete senses, subtle senses, and meta-conscious of the evolutionary trajectory of matter, life, and mind.

**The Confusions**

Another area that states and stages have in common are “confusions”. John Churchill (2018) describes state confusions in his dissertation and there seem to be stage confusions as well.

People entering new vertical states initially experience unconscious confusions (described above in the four tenets) and cannot see them until they transform to the mature part of their stage. Below I describe some of the stage confusions that seem to arise at the beginning of each developmental level and are resolved by the end of that level in order to achieve a mature developmental state stage that can turn those aspects back on themselves. Once this occurs, they are able to enter into the new state which marks the beginning of a new developmental stage (described at 1.0 below). This pattern continues throughout the confusions. Please see table 2 below for a full description of this process.

**Table 2. The Confusions.**

<table>
<thead>
<tr>
<th>THE CONFUSIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Confuses physical self with other selves: fusion belief (“who am I?”). They cannot differentiate between where their body ends and another phenomenon begins. They must resolve these confusions before they can access the new self that arises when transitioning to the new 1.5 stage. The confusions are not initially recognized, and then the recognition</td>
</tr>
</tbody>
</table>
occurs intermittently as they begin to see them. Once they see that there is a separation between themselves and other objects, they can turn that recognition back on themselves (i.e., the reflection of themselves they see in the mirror), and when sufficiently mature they progress to the next stage where they have identified a phenomenal self (and further confusions arise).

1.5 Confuses 1) visualizations & self-talk with physical reality; 2) confuses yours and mine; 3) confuses truth and lies.

2.0 Confuses the pronouns as moving objects (“I” and “you”): For example, everything recognized until this time has a name that stays with the object, however now language becomes more nuanced. The word “I” means “you” when you use that word and means “me” when I use it; and the word “you” means you when I use that word but means “me” when you use it. Word labels thus do not stick to the “objects” (you-me).

2.5 Confuses individual thought and action with collective thought and action: They think that they are making individual decisions and taking individual actions, but their thinking and actions are conformed to their identified group.

3.0 “Who am I?” Confuses their 2.5 collective identity with their 3.0 individual identity: They are beginning to make individual decisions and take individual action but cannot identify this difference with the collective thought and action taken in the 2.5 stage.

3.5 Confuses the fantasy/visualizations of the future with reality: They visualize a goal in the future and believe that it represents the reality that they will reach once the goal is achieved. When they reach their goal, they find that the reality is not the same as their visualizations of the future.

4.0 Confuses individual subtle insights/awareness with collective synchronicity: Their group discussions are long and nuanced, and eventually they see a decision emerge. They often label this as synchronicity and do not recognize the process of eliminating thoughts achieved by the group discussion--or the subtle insights that are conditioned in them from subtle social conditioning (social construction of reality). They cannot differentiate between the experience of being socially constructed and their own individuality.

4.5 Confuses one’s own individual projections on others with other’s projections on them. They will see that others judge them but don’t see how they judge others.

5.0 Who am I? Confuses their 4.5 authentic identity (achieved through thought) with their newly forming MetAware identity: conscious awareness.

5.5 Confuses one’s individual constructions with reified reality: Sees that their constructions are a story but does not see how acting on their own constructions becomes a reified reality. Confuses time with the timeless and space with the boundless.

6.0 Confuses infinity and eternity with the boundless/timeless.

6.5 Confuses witnessing as a location with non-dual awakening.
The Relationship between the States and Stages

There seems to be an evolutionary cycling that occurs between the states and stages. When transforming into a new perspective, certain states relevant to that stage occur, however they are not stable enough to ground the perspective. As the states become more grounded, they encounter confusions for that stage. To mature the state into a trait (the mature part of a stage), they must shine the light of the state onto the confusions in order to gain the clarity to resolve them (and thus "defuse" the tension of the confusion).

Once the stage is mature, they must turn the mature stage back on itself, which is sufficient to trigger the new state that is required for entry into the next developmental level. This new state is necessary but not sufficient to move into the new stage, because first it must sufficiently stabilize to encounter and clarify the confusions. This turns the unstable state into a mature trait which finalizes the stage, and then the state turned into a stage turns back on itself to trigger the next state required to mature into the next stage. This cycling continues to evolve the next state and stage, which is described in the Table below. Note that there is insufficient space to include full descriptions of the states, the confusions, the state to stage, and the stage to state. These are described above while Table 3 below shows how the interpenetration occurs and fuels development from one stage to the next.

Table 3. Interpenetration of States and Stages.

<table>
<thead>
<tr>
<th>States (necessary but not sufficient)</th>
<th>Confusions</th>
<th>State to Stage</th>
<th>Stage to State (necessary and sufficient)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Views/vantage points...</td>
<td>Confuses...</td>
<td>State becomes trait...</td>
<td>Stage turning back on self...</td>
</tr>
<tr>
<td>1.0 Sensing: I receive from sight, sounds, touch (etc.) from concrete exterior objects/people</td>
<td>Physical me and you. Who am I?</td>
<td>Sensing becomes a stage: depth perception, hearing, touching integrates</td>
<td>Turning sensing back on the self: Concrete identity—“I see me,” “I see you.” (1.5)</td>
</tr>
<tr>
<td>1.5 Meta-sensing (interior visualizing disconnected with self-talk)</td>
<td>Visualizations with concrete reality. Yours with mine. Truth with lie</td>
<td>Visualizing &amp; self-talk becomes a stage. Reflector # 1</td>
<td>Turning visualizations back on the self (“I see you see me”) on reflection (2.0)</td>
</tr>
<tr>
<td>2.0 Thinking (visualizing/self-talk integrates.) Needs exterior manipulatives and reciprocity with others to think (con-op)</td>
<td>Pronouns as moving objects “I” and “you.” See “confusions” described above.</td>
<td>“Thinking” with manipulatives and others becomes a stage (relativity, reciprocity, rules)</td>
<td>Turning “thinking” back on the self (2.5) “I am you”</td>
</tr>
<tr>
<td>2.5 Meta-thinking (formal operations-interior concrete thinking/ reasoning). Reasoning about you as me</td>
<td>Individual thought and action with collective thought and action</td>
<td>Meta-thinking becomes a stage. Interpenetration of self and other</td>
<td>Turning meta-thinking back on the self (3.0) “I see subtle me” on reflection</td>
</tr>
</tbody>
</table>
Reasoning about me as you Reasoning about trajectory of moral principles that are us. (concrete principles).

**Reflector # 2**

<table>
<thead>
<tr>
<th>3.0</th>
<th><strong>Cognition</strong> (abstract operations-subtle sensing): I receive subtle ideas, subtle emotions subtle reasoning using exterior subtle objects: maps, diagrams, tables, formulas etc., and people. <strong>Focus/concentration</strong> arises</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subtle Me and you.</strong></td>
<td><strong>Who am I?</strong></td>
</tr>
<tr>
<td><strong>Turning cognition back on the self (3.5)</strong></td>
<td>(“I see subtle me,” “I see subtle you”).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.5</th>
<th><strong>Metacognition</strong> (thinking about thinking and feeling and how that affects behavior)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metacognitive thoughts and visualization of the future with reality</strong></td>
<td><strong>Metacognition becomes a stage.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.0</th>
<th><strong>Awareness</strong> of Metacognition (sub-personalities, subtle reciprocity, subtle collectives: contexts and complex adaptive systems)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual awareness with collective synchronicity</strong></td>
<td><strong>Awareness becomes a Turning subtle awareness stage (subtle relativity back on the self. (4.5))</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.5</th>
<th><strong>Meta Awareness</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>One’s own individual projections on others with other’s projections on them.</strong></td>
<td><strong>MetAwareness becomes a stage.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.0</th>
<th><strong>Consciousness</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conscious me and you.</strong></td>
<td><strong>Who am I now?</strong></td>
</tr>
<tr>
<td><strong>Turning consciousness back on the self (5.5).</strong></td>
<td><strong>I see conscious you; I see conscious me.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.5</th>
<th><strong>Meta-consciousness</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual constructions with reification of reality</strong></td>
<td><strong>Meta-consciousness becomes a stage.</strong></td>
</tr>
</tbody>
</table>
empty/deconstructed boundaries and word meaning on reflection. Reflecting Knower #5.

6.0 Higher Mind (timeless integrated with boundless) experiences meta-conscious relative reality (cosmos whole)

Infinity and eternity with timeless-boundless

Higher mind becomes Turning higher mind back on the self (6.5):
Reciprocity between timeless/boundless and meta-conscious relative reality (ocean and waves metaphor)

6.5 Illumined Timeless/boundless illumines.
The concrete mind, subtle mind, MetAware mind, and meta-conscious mind;
The concrete senses, subtle senses and meta-conscious evolutionary trajectory of matter, life, and mind

Confuses the formless witness with unification

Illumined mind becomes a stage.
Interpenetration of witness and witnessed “I am” upon reflection. Reflecting Knower Witness #6

Turning illumined mind back on the self (7.0) (unification)

Viewing from full developmental trajectory through the tiers

Viewing from the full developmental trajectory of 12 stages brings new understandings that cannot be observed when viewing only from the first 4 concrete stages (1.0 Impulsive through 2.5 Conformist) and the first 8 concrete and subtle stages (1.0 Impulsive through 4.5 Strategist). The four concrete tier stages and four latest MetAware stages can be viewed significantly differently when viewed from the whole.

Our intention below is to enrich prior descriptions of the MetAware tier by using the patterns observed in the concrete tier as a framework for understanding the MetAware tier.

View of the Four Stages in the Concrete tier from the Whole Developmental Trajectory

At birth, the 1.0 Impulsive level does not recognize objects although they can see with their eyes. They also have little recognition of space since their eyes do not mature and sync with each other to provide depth perception until around 6 months old. They gradually acquire a perception of objects and ability to point to them when labeled, and they gradually orient themselves in space when they begin to crawl and walk. However, they still lack a sense of their physical self as “me.”

The 1.5 Egocentric level (sometimes called the archaic, purple, and the terrible twos) is initiated when the sense of identity of a physical self occurs, but while they have a sense of space they do not yet have a sense of boundaries, which continues to develop.
Upon entry to 2.0 Rule Oriented level (sometimes called archaic/magic, early second person perspective) they begin to identify boundaries in rules but do not yet understand the concept of time.

Although a person who does not understand time might be viewed as being in the “timeless,” these three levels (1.0, 1.5, entry 2.0) are in a timelessness that is “before” time (see Table 1 above). Their memory capacity is not sufficiently mature to possess a stable sense of time, and thus they cannot progress beyond time to access the timeless and thus cannot unify time with the timeless. You will often hear a child at this stage repeatedly ask “Are we there yet?” when traveling.

Unification calls for unifying phenomena with the formlessness/emptiness of phenomena, the boundlessness on the other side of bounded space, the formless/empty self on the other side of the ego-identity of self, and timeless on the other side of time. Timelessness on the other side of time would provide the necessary and sufficient state to allow for the unification of time and the timeless.

In children, the concept and experience of time does not manifest until approximately 8 years old, and thus full unification does not seem possible until after the age of 8, and we would not be able to make the claim that all stages can access the gross, subtle, formless/emptiness, and unification states before then. As Table 1 above highlights, 1.0 Impulsive, 1.5 Egocentric, and part of 2.0 Rule Oriented stages do not yet have the developmental experience to reach the emptiness/formlessness of time which, in this theory, is a requirement for states of unification.

The first time this logically occurs is at the 2.5 Conformist stage, where we find a concrete unification in some traditions (for example, Theravada Buddhism and other conformist versions of the traditions).

View of the Four Stages in the MetAware tier from Whole Developmental Trajectory

The last four developmental levels at the MetAware tier progressively explore the formless/emptiness of objects depicted by words and labels (words/concepts and boundaries are viewed as constructs at 5.0), the self (constructed ego aware seen at 5.5), and the timeless (entry to 6.0).

Notice that these three stages mirror the first three stages of the concrete tier. The concrete tier stage of 1.0 Impulsive accesses the relative reality of concrete phenomena and space, while the MetAware tier stage of 5.0 Construct Aware accesses the formlessness of word meaning (phenomena) and bounded space.

The 1.5 Egocentric accesses the identity of a concrete self, while 5.5 Transpersonal accesses the formlessness of the subtle ego and consciousness of awareness as their identity.

Entry 2.0 Rule Oriented develops a sense of time, while the transition into 6.0 Universal requires access to the timeless.
The stages and states between these two tiers (the Subtle tier) seem to developmentally access everything else. In other words, the concrete tier stages require access to concrete objects (phenomena), a concrete self, concrete space, and concrete time, while the MetAware tier requires access to the formlessness/emptiness of phenomena/objects; the meaning-making of labels and stories; the emptiness of the meaning of a self; and the boundless and timeless.

The subtle tier then has access to both the relative and the emptiness/formless. You can continue to develop (if you mature the required state into a stage) and can continue to “awaken” (because you already have access to the required relative understanding to see beyond into emptiness). This allows someone to develop into the subtle stages (3.0-4.5) without moving into the emptiness/formlessness states and also allows one to attain all of the emptiness formless states and bring them into unification with any of these particular stages. One can thus achieve one (receptive 3.0), or the other (3.5 active either/or), or both (4.0 both/and) – everything in between the concrete and MetAware tiers).

The Wilber-Combs Matrix (Wilber, 2006) and its derivatives (Diperna, 2014) seem to resonate well here. I wish to clarify that both Wilber and Diperna describe states and stage recognition up through the MetAware tier. Their models regard orienting generalizations which do not delve into the granularity of a theory of how states and stages relate to each other in an interpenetrative manner. It is clear to me that this model is not likely to provide followers of their models any new understandings on a grand perspective, but perhaps it can support a more granular theory that uses research findings to interweave with theory creation and support a developmental practice of integrating states and stages in ways not previously considered.

It appears that much of our experience in the concrete tier, with states and developmental stages in their various combination, is viewed after the first two or three stages, where insufficient development has occurred to provide the relative side of reality for unifying the relative and the formless.

In the MetAware tier, development is adequate on the relative side of reality, however the states required for continued development and unification may have not yet been acquired. In this theory. A person could develop through 4.5 Strategist without accessing any kind of formless state.

This theory is supported by our analysis of vocabulary frequencies in a 1.1 million word study, the qualitative research studies conducted on every developmental level, and the word definitions and descriptions that arise at each stage. This all is supported by our peer-reviewed article describing the validity of the STAGES model (O’Fallon et al., 2020).

This preliminary theory attempts to utilize something more finely grained than orientating generalizations and responds to the question, can we gradually awaken simply by growing up?

Remaining questions include: Both vertical and horizontal states have been recognized, but what about vertical and horizontal stages? How are evolution and involution related to this theory?
Summary

This article has proposed a preliminary theory about the interpenetration of states and stages. The history of the evolution of theories regarding how states and stages are related seems to hint at ever-ensuing theories about their relationship. The proposed theory of the evolutionary interpenetration of states and stages that this article proposes represents one possible next step.

Because research partly underpins this theory, it is important to understand what kind of research approach supports this inquiry and how selecting the appropriate subjects for this research would affect the results. The research studies do not verify the theory but do provide part of the triangulation and some evidence that can highlight theoretical aspects and cull aspects that seem to be detractors and not fundamental to a theory. Each study we have conducted supports the view shaping this theory.

This research, then, uses the evidence I have gathered so far to delve into the theory of how the stages and states interpenetrate and how this relationship evolves.

In order to support a clear understanding, a set of definitions is required, and thus the next stage of this theory building is to define the words and concepts of “states, stages, and awakening/unification.” It is also important to note the trajectory of how states mature and grow and the areas they have in common with stages: phenomena, self, space, and time. Although there may be other more detailed and complex commonalities, it seems that these are the most primary or basic categories we can utilize.

In the stages model, phenomena arise in the first column of the matrix, while the self/collective arises in the second column. Space and time, which are evolutionary and have trajectories, arise in the repeating patterns of the third column since these trajectories of receptive, active, reciprocal, and interpenetrative become increasingly wider as they progress through the three tiers.

Proposing three repeating tenets that tie states and stages together into interpenetration represents the next step: 1.) Necessary but not sufficient 2.) The confusions 3.) Turn it back on yourself.

These components combine in this beginning theory that describes an evolutionary sweep of repeating patterns between states, confusions, and stages and how they interact to fuel the interpenetration of state and stage development.

An evolutionary theory is never complete, and I look forward to watching it unfold and engaging in the delightful questions that emerge.

References


Murray, T. (2020). Investigating The validity of the Ogive method, including the use of Rasch Analysis, for Sentence Completion Test assessment for the STAGES Model. *Integral Review, 16*(1). This issue.


A Summary of Research on and with the STAGES Developmental Model

Tom Murray¹ and Terri O'Fallon²

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1. Introduction

The STAGES model of adult development is a new framework created by Terri O'Fallon, in consultation with several colleagues over the past decade (O'Fallon, 2010, 2011, 2012, 2013). The model is an extension of the ego-development framework, including the sentence completion test (SCT) mode of assessment, formulated by Jane Loevinger and updated by Susanne Cook-Greuter. It includes elements inspired by Ken Wilber's AQAL model and Sri Aurobindo's model of psychospiritual development (Wilber, 1995; Aurobindo, 1992). The STAGES model diverges from the earlier frameworks in two ways. First, it proposes a small set of underlying factors (parameters or dimensions) that bring about and describe the progression of developmental levels explained in the prior theories. Second, test scorers use an alternative scoring procedure based on these parameters.

Within the past five years, a series of empirical studies have helped launch STAGES from its gestation into a new level of maturity and rigor (a modest step in the usually long process of validating and solidifying any assessment). In this paper, we summarize the results that are reported in detail in several other papers. This paper appears as part of a special issue of the Integral Review journal dedicated to the STAGES model. In the “Introduction” article of that issue, we summarize about a dozen empirical research projects, most from within academia, that have used the STAGES assessment or its derivatives as a component of the research project. Given the newness of the model, this count is significant and is an indication of the face validity and usefulness of the model. These STAGES application areas include investigations of organizational change in successful organizations, developmental analysis of women leaders, reflective self-knowledge in healthcare practitioners, psychological resilience in prison inmates, and assessment of the sophistication of climate change understanding.

In this article, we focus on studies that have aimed to validate the STAGES assessment or learn more about its psychometric properties. These studies include:

1. a summary of prior research on the sentence completion test (SCT) method;

2. a replication study showing that the STAGES model tracks very well with the Maturity Assessment Profile (MAP) method from which it was derived, up to 4.5/Strategist (Replication was not attempted above this level for the reasons described);

3. studies showing that the STAGES assessment remains robust for variations in sentence stems and test lengths;

4. longitudinal data analysis that shows, among other things, that the MetAware (Tier 3) stages exhibit appropriate developmental progression;

5. additional analysis of late stage patterns that shows that confirms that those scoring in the Metaware tier have a substantial number of test items scored at the complex 4.5/Strategist level;
6. additional inter-rater analysis, including more recently trained scorers and per-item inter-
rater reliability (IRR) statistics;

7. a research study that uses item response theory and Rasch analysis to investigate many
psychometric properties of the STAGES assessment and that elaborates on a number of
problems with the ogive item-aggregation method while also suggesting an alternative;

8. a "Face Validity" section describing various uses of the STAGES model, including its use
in 10 dissertation or thesis projects.

9. a description of preliminary analysis of how specific words/concepts appear as frequency
distributions across the stage spectrum; and

10. description of a study on how children respond to the sentence completion test.

In several of our research papers, we make a point of noting that positive results on the
STAGES assessment generally transfer to positive results for the Loevinger lineage of SCTs,
including Cook-Greuter’s and Torbert’s MAP, Global Leadership Profile (GLP), and Leadership
Development Profile (LDP) SCTs. Our articles also discuss properties that differentiate STAGES
from the other assessments in this lineage. However, many of the conclusions we draw (e.g.,
regarding the validity of much shorter versions of the SCT and the validity of using alternative
sentence stems) can be applied by other SCT developers.

2. The STAGES Model

The SCT for adult development, created by Jane Loevinger and later extended by Susanne
Cook-Greuter, William Torbert, and Terri O'Fallon, is arguably the most thoroughly researched,
validated, and used developmental instrument in adult psychology. Loevinger used the term "ego
development" for this "holistic" view of personality and cognition that "[sees] behaviors in terms
of meaning or purposes" (Loevinger & Wesler, 1970, p. 3). Ego development has been
described using a variety of concepts including leadership maturity, perspective-taking
complexity, sophistication of world-view consciousness, and "wisdom skills." It has substantial
overlap with the construct of meaning-making maturity described in Kegan's construct
developmental theory (Kegan, 1994). Kegan describes this construct as a "consistency in the
structure (or order of complexity) of one's meaning-making (i.e., how one thinks)" (1998, p. 55)
about the relationships between self, others, and the world – intrapersonal, interpersonal, and
cognitive in Kegan's terms and "I/we/it" in terms of Wilber's Integral Theory (1995).

The SCT is a "projective" test in which subjects complete sentence starters, responding freely
without a need to produce a "correct" or superior answer – which the theory claims affords the
test analyst a deeper look into tacit or unconscious psychological traits. The standard SCT has 36

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3 Browning (1987, p. 113) describes ego development in terms of "a series of developmental stages that
are assumed to form a hierarchical continuum and to occur in an invariant sequence...[that describes a]
person's customary organizing frame of reference, which involves...an increasingly complex synthesis of
impulse control, conscious preoccupations, cognitive complexity, and interpersonal style."
independently rated sentence starters, or "stems" (e.g., "Raising a family..." and "When people are helpless...")), which the test taker completes (e.g., "...is a joy" and "...they get taken advantage of"). Sentence completions vary from a few words (or even one word) to full paragraphs (and, rarely, multiple paragraphs). Rather than taking a simple sum or mean of the item scores, the total protocol rating (TPR) score uses a more complex cutoff method called the "ogive method" for reasons we describe later. The ogive method converts a complex, continuous score into one of a set of discrete categories (i.e., levels or stages): 8 for Loevinger's model, 9 for Cook-Greuter's and Torbert's models, and 12 for O'Fallon's model.

Regarding the theoretical model, Cook-Greuter extended Loevinger's system by differentiating two stages (Construct Aware and Unitive) within Loevinger's final stage, a model also used by Torbert and associates. O'Fallon's research has taken this progression further, differentiating four stages (5.0, 5.5, 6.0, and 6.5) within the same late-stage territory. O'Fallon also differentiates the Conformist (or Diplomat) level into two levels, basing this and her other modifications on theoretical principles. Thus, the STAGES model defines 12 levels, MAP/GLP/LDP defines 9, and the Washington University Sentence Completion Test (WUSCT) defines 8.

In this issue, other papers, including O'Fallon et al. (2020) and Barta's "Psychological Application of the STAGES Model," describe the STAGES model in detail. Figure 1 illustrates the three questions that define the model.

![The STAGES Matrix & the Three Questions](image)

**Figure 1. The STAGES model.**
3. Validity of the Sentence Completion Test

[Murray (2017) contains a lengthy summary of validity and reliability studies of the SCT, supporting Westenberg et al.'s conclusion that "findings of over 350 empirical studies generally support critical assumptions underlying the ego development construct" (p. 485). Below we provide a summary of the main outcomes of this history of research on the SCT for inter-rater reliability, internal consistency, test-retest reliability, face validity, construct validity, incremental validity, clinical utility, external validity, and predictive validity (included in text copied from Murray (2020) in this issue). In later sections, we discuss the analysis of the STAGES model.

Of the more than 400 studies of the SCT, the majority were conducted with Loevinger’s WUSCT, but studies of the other variations inevitably replicate the results of the WUSCT’s general validity characteristics. Torbert (2014) summarizes a number of studies on the MAP, GLP, and LDP instruments that postdate the WUSCT studies.

Loevinger's theory of ego development was intricately linked to her assessment instrument, the WUSCT. (Hy & Loevinger, 1989; Loevinger & Wessler, 1970). The literature on the SCT includes over 40 years of meta-analyses and critical overviews, which substantially support its validity and usefulness (see Cohn & Westenberg, 2004; Manners & Durkin, 2001; Holt, 1980; Novy & Francis, 1992; Jespersen et al. 2013; Westenberg et al., 2004b; Forman, 2010). According to an overview by Westenberg et al. (2004a), the SCT has robust psychometric properties, having "indicated excellent reliability, construct validity, and clinical utility" (p. 596). They further state that "findings of over 350 empirical studies generally support critical assumptions underlying the ego development construct" (p. 485), and dozens of studies have followed since 2004 (Torbert, 2014).

Blumentritt (2011, p. 153) says that "more than 1,000 articles and book chapters have been published examining nearly every conceivable aspect of the construct and measurement of ego development," overall showing "substantial support" for the theory and measurement. Most of these studies are based on the WUSCT, but some use the MAP/GLP/LDP variations. For reasons given above, we claim that these results apply to STAGES as well. Results of the meta-analyses include the following:

- "Psychometric studies of the WUSCT...invariably report high levels of inter-rater reliability" (Westenberg et al., 2004a, p. 603; see Torbert & Livne-Tarandach, 2009 for strong results on the MAP, GLP, and LDP; and see O'Fallon et al., 2020 for strong IRR on STAGES).

- "The WUSCT [displays] high internal consistency: Most studies report a Cronbach's alpha of .90 or higher" (Westenberg et al., 2004b, p. 693; see Torbert & Livne-Tarandach, 2009 for strong results on the MAP, GLP, and LDP; and later in this paper for strong internal consistency in STAGES).
− "In terms of test-retest reliability, when sufficient time is allowed between the two tests to allow for motivational effects, significant correlations have been found between test and retest scores" (Manners & Durkin, 2011, p 545).

− "The face validity of the SCT is demonstrated by the sheer fact that it has been used in more than 300 research studies [including] such diverse topics as parenting behaviors, managerial effectiveness, and the effects of meditation on recidivism rates" (Phaffenberger, 2011, p. 10).

− The SCT has "excellent reliability, construct validity, and clinical utility" (Westenberg et al., 2004a, p. 596).

− Longitudinal studies have confirmed the sequential invariance of the developmental steps (i.e., no stage can be skipped) (Loevinger, 1998).

− The SCT has incremental validity over IQ and socioeconomic status (SES) measurements (Browning, 1987; Cohn & Westenberg, 2004).

− The SCT has proved applicable in different countries, cultures, and languages (see Carlson & Westenberg, 1998).

− Though there have been fewer studies on the predictive validity of the SCT, Vincent notes that "a growing body of studies is showing associations between increasing consciousness development and better leadership performance and organizational outcomes" – and she cites a substantial 21 articles in this regard (2015, p. 2). Other indications of predictive and external validity can be found in Torbert (2014), McCauly et al. (2006), and Harris (2005).

4. STAGES vs. MAP Replication Study

[This section contains excerpts from The Validation of a New Scoring Method for Assessing Ego Development Based on Three Dimensions of Language, by O’Fallon et al., 2020: [https://doi.org/10.1016/j.heliyon.2020.e03472]]

The first major study of the validity of the STAGES assessment method was a "replication study" comparing the STAGES model to the MAP model (from Cook-Greuter), from which STAGES was derived. The main purpose of the study was to show that SCTs scored by both systems would have a high reproducibility (i.e., to show that STAGES measures essentially the same general construct) while using an assessment methodology that is, according to its developers, more flexible, efficient, and explanatory.

Because the two systems have relatively different definitions of levels above 4.5/Strategist, the replicability study was conducted for stages up to and including 4.5. We called this the Tier 1-2 data set, and the data for levels higher than 4.5 was called the Tier 3 data set (Metaware tier in the STAGES model). Note that according to very rough estimates of the general population, Tiers 1
and 2 combined represent approximately 98% of all adults and 92% of all professionals (Cook-Greuter, 2004, p. 279; Torbert, 2009).

Because of the expected divergence in level definitions in Tier 3, for that tier, we conducted an IRR study as an indicator of test consistency (see the longitudinal analysis below for evidence of Tier 3 validity). The study included an IRR analysis for the full set of inventories, combining Tiers 1 and 2 with Tier 3.

**Method.** From a set of approximately 750 inventories, most of which were scored previously using the Cook-Greuter/Loevinger (CG/L) method, 142 were selected for this study using stratified methods described in the main paper. The selection criteria considered that the goal was to have sufficient representation in each of the 32 stratified sampling categories and to have approximately 12 inventories at each STAGES level.

For this study, each of these inventories was scored by three STAGES scorers using random assignment of inventories to four certified scorers (i.e., there were four scorers with inventories assigned such that each inventory was scored thrice). The MAP scores were taken as the gold standard against which STAGES scoring would be measured (the IRR of the MAP scoring system had been previously demonstrated). Having four independent raters for the STAGES system comprises a particularly rigorous method of testing. We compared the STAGES model and MAP compared both per rater and for all raters collectively. Because one of the scorers ("scorer #1") was in the unique position of having learned both the MAP and STAGES scoring methods, a separate analysis was performed, aggregating the three other scorers as well as looking at all four scorers together.

The level of agreement for Tier 1-2 data was quantified by the weighted Cohen’s Kappa statistic (Cohen, 1968). Using the Kappa statistic, we compared the STAGES scoring for each of the three scorers separately with the single CG/L score. Furthermore, we calculated the mean Kappa values across all scorers.

**Results.** For the Tier1-2 study (up to 4.5), there was "substantial" or "excellent" agreement for all methods of evaluating STAGES vs. MAP scoring (i.e., for each scorer, for all combined, and for all except scorer #1).

For the Tier-3 study, including levels 5.0, 5.5, 6.0, and 6.5, the overall agreement among the raters was "substantial" and the agreement was "moderate" for the analysis with the more experienced scorer #1 excluded.

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4 However, for the clients served and scored by Pacific Integral, the percent scored in Tier 3 is higher, approximately 25%.

5 To date, approximately 10 individuals have been certified to score using the STAGES model, and more are under supervision for certification. The first cohort of four trained scorers, now referred to as master scorers, participated in the validity study described in this research.

6 Using a widely referenced set of labels, Kappa values can be interpreted as follows: $\kappa < 0.0$, no agreement; $\kappa = 0.0–0.20$, slight agreement; $\kappa = 0.21–0.40$, fair agreement; $\kappa = 0.41–0.60$, moderate agreement; $\kappa = 0.61–0.80$, substantial agreement; and $\kappa = 0.81–1.00$, excellent agreement (Landis, 1977).
For the all-tier (Tiers 1, 2, and 3) study, the IRR among scorers across all 12 stages was strong both for all scorers and where the more experienced scorer #1 was excluded.

The results above summarize the overall agreement between the two models. At a more detailed level, we might ask how this agreement looks at each developmental level. Appendix 4 of the main article includes a detailed look at the per-level agreements, as shown in Table 1. That paper explains how the Tier 1-2 scores of all raters were combined to produce the STAGES scores given in the table.

### Table 1. Agreement details for STAGES vs. Cook-Greuter/Loevinger systems.

<table>
<thead>
<tr>
<th>(CG/L)*</th>
<th>1.0</th>
<th>1.5</th>
<th>2.0-2.5</th>
<th>3.0</th>
<th>3.5</th>
<th>4.0</th>
<th>4.5</th>
<th>Total</th>
<th>Agrmnt</th>
<th>Agree +/- 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAGES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>1.5</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>33.3%</td>
<td>86.7%</td>
</tr>
<tr>
<td>2.0-2.5</td>
<td>3</td>
<td>5</td>
<td>35</td>
<td>9</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>53</td>
<td>66.0%</td>
<td>92.5%</td>
</tr>
<tr>
<td>3.0</td>
<td>0</td>
<td>2</td>
<td>9</td>
<td>21</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>33</td>
<td>63.6%</td>
<td>93.9%</td>
</tr>
<tr>
<td>3.5</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>28</td>
<td>7</td>
<td>3</td>
<td>43</td>
<td>65.1%</td>
<td>90.7%</td>
</tr>
<tr>
<td>4.0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>19</td>
<td>6</td>
<td>28</td>
<td>67.9%</td>
<td>100.0%</td>
</tr>
<tr>
<td>4.5</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>9</td>
<td>23</td>
<td>37</td>
<td>62.2%</td>
<td>86.5%</td>
</tr>
<tr>
<td>5.0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>12</td>
<td>50</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>218</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agrmnt</td>
<td>33.3%</td>
<td>41.7%</td>
<td>70.0%</td>
<td>58.3%</td>
<td>77.8</td>
<td>52.8%</td>
<td>63.9%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(*The CG/L stage is noted in parentheses).

Table 1 shows the number of STAGES scores assigned to each CG/L score for each possible STAGES score. For example, the first item in the table with a count of “4” indicates that, totaled over all four scorers, there were four instances of a CG/L score “2” with a STAGES score of “1.0.” The table shows percent agreement for each row and column and includes an agreement (“ +/- 1”) within a one-level window. The total number of inventory scores was 218 across the four scorers. As the CG/L system does not differentiate 2.0 and 2.5, these were combined. The agreement numbers can be interpreted in relation to the fact that certified scorers in both systems exhibited a margin of error – usually at least 85% agreement between accuracy and a master scorer.
From these detailed results, we concluded the following:

- Similar to the analysis of the Tier 1-2 study, the overall weighted Kappa score for this matrix was 76%, well into the “substantial agreement” level.

- The number of exact matches (values along the diagonal) varied per level. For levels above 1.5, there was a substantial number of exact matches, but for levels 1.0 and 1.5, the number of matches was unacceptably low relative to the number of inventories rated at this level by CG/L. However, in real applications, less than 1–2% of adult individuals were expected to score at these levels, making this mismatch insignificant.

- The “within one level” metrics were all high, ranging from 86.5% to 100% for levels above 1.5.

The STAGES model seemed to bias the following levels marginally higher compared to CG/L – 2.0–2.5, 3.5, 4.0 – while it seemed to bias levels 3.0 and 4.5 slightly lower than CG/L. Colleagues have expressed anecdotal concerns that the STAGES model would bias the highest developmental levels higher than the CG/L model, thus giving participants a false sense of higher development. Our data suggest a small degree of such an effect in assigning CG/L Pluralist (4.0) scores into Strategist (4.5), but it shows a reversal of this trend for the highest level where the bias is for STAGES to rate CG/L Strategist individuals as Pluralist, or lower. Overall, there does not appear to be a significant shift, higher or lower, in STAGES vs. CG/L scoring. As mentioned in the description of the Tier 1-2 study, at levels above 4.5, the available data did not allow for a robust comparison, and this question remains for future research.

Overall the study supported the hypothesis that STAGES replicates MAP scoring, and is thus comparable to prior measurement methods in the Loevinger tradition, up through 4.5/Strategist. Later research described below adds substantially to these results, in terms of inter-rater reliability (section 8), and the validity of measurements in the Metaware tier (sections 6, 7).

5. Modifications to Test Length and Sentence Stems: Internal Consistency

[This section contains excerpts from two papers in this journal issue: "The STAGES Specialty Inventories: Robustness to Variations in Sentence Stems Integral Review," by O'Fallon & Murray and "Investigating the Validity of the Ogive Aggregation Method, Including the use of Rasch Analysis, for the Sentence Completion Test and the STAGES Model," by Murray.]

Using the Cronbach's alpha statistic, prior research on the reliability of the WUSCT and its derivatives (MAP, GLP, and LDP) has consistently shown good to excellent results for internal consistency. Prior studies have evaluated specific inventories, and we have extended this research with general conclusions regarding the robustness of the SCT to changes in sentence stems.

The STAGES model allows for efficient introduction and experimentation with variations of the SCT, including new sentence starters and length variations. O'Fallon and colleagues have developed and evaluated "specialty protocols" in these domains: leadership, love, education,
climate change, and a children's version of the SCT. Most of the specialty protocols replace six of the general protocol stems with theme-specific stems. In this issue's "Specialty Inventories" paper, we show the results of the internal-consistency studies of (a) the STAGES general protocol, (b) six specialty protocols, and (c) a shorter 16-item inventory.

Next we describe reliability analysis of the six new ("specialty") inventories: leadership, love, education, psychological reflection, climate change, and a children's inventory. For the children's inventory, 53 children, age range 4-13 enrolled in a progressive elementary school in Brisbane Australia, gave verbal answers to in-person prompts; recordings of their answers were transcribed. The data is shown in Table 2.

### Table 2. Cronbach's alpha internal consistency values for specialty protocols.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Leadership</th>
<th>Love</th>
<th>Education</th>
<th>Climate Change</th>
<th>Psych</th>
<th>Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>N in study</td>
<td>32</td>
<td>20</td>
<td>20</td>
<td>32</td>
<td>17</td>
<td>53</td>
</tr>
<tr>
<td>New stems (of 36)</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>α All 36 stems</td>
<td>0.97</td>
<td>0.95</td>
<td>0.95</td>
<td>0.96</td>
<td>0.92</td>
<td>0.88</td>
</tr>
<tr>
<td>α General prot. stems only</td>
<td>0.96</td>
<td>0.94</td>
<td>0.94</td>
<td>0.95</td>
<td>0.90</td>
<td>0.85</td>
</tr>
<tr>
<td>α New stems only</td>
<td>0.85</td>
<td>0.82</td>
<td>0.83</td>
<td>0.82</td>
<td>0.80</td>
<td>0.63</td>
</tr>
</tbody>
</table>

**Conclusions:** For the five specialty inventories excluding Children's:

- the overall internal consistency was excellent (α 0.95 to 0.97).
- the internal consistency for the new stems as a group was good (α 0.80 to 0.85).
- For the Children's inventory:
  - the overall internal consistency was good (α 0.88).
  - the internal consistency for the new stems as a group was questionable (α 0.63).

Overall, these results not only show evidence about the reliability of the particular specialty inventories, but it is also show evidence that the SCT is quite robust to the addition of new stems, assuming they are well-written. It also gives evidence that even a short test containing only six specialty stems would be a psychometrically reliable instrument.

The Children's protocol is a special case. First, there were almost twice as many new stems as the other specialty inventories. Second, the assessment was done face to face and verbally. Third, the pre-existing (general protocol) stems by themselves show a much lower alpha (though still "good") vs. the other protocols, indicating that there was probably much more variation in the children's responses than in adult's (see O'Fallon's paper on the Children's protocol in this issue). Thus, though the alpha of the new stems by themselves was unacceptably low, it is not clear whether this was because of the nature of the stems or the nature of the subject population.
Additional analysis (the Cronbach-Mesbah Curve in "OGIVE and Rasch" analysis paper in this issue) also shows that the STAGES assessment (and the SCT in general) is psychometrically valid for much shorter inventories, as low as 10 and even 5 items for certain applications.

In addition, we are currently working with domain experts to design additional specialty protocols in these areas: relationships, religious beliefs, spirituality, money, hope, dementia, ethics, and parenting.

6. Longitudinal Analysis

[This section contains previously unpublished data and results summarized in "The Validation of a New Scoring Method for Assessing Ego Development Based on Three Dimensions of Language," by O'Fallon et al., 2020: https://doi.org/10.1016/j.heliyon.2020.e03472]

In the current database of STAGES scores, a more recent data set than that used for the replication study above, 115 individuals have taken the assessment more than once. Evidence that each subsequent test is highly likely to yield a score equivalent to or higher than the previous score (i.e., monotonic growth) is considered strong evidence of a “developmental” construct. Below we summarize our longitudinal data analysis for the developmental spectrum while also focusing on the MetAware tier.

Of the 1,245 surveys in the database, 143 were retests representing 115 clients, 88 having taken one retest, 20 having taken two retests, 5 having taken three retests, and 3 having taken four or five retests. The average time difference between retests was 2.1 years. In this analysis, we ignored the time differences between tests. (For future analysis, we will also factor in retest gap time using multilevel modeling).

Table 3 includes a summary of the data showing the prior and next score of each retest. Table 4 shows the same data in terms of the amount of change. Each of the 143 retests was considered as an independent event; 38% remained the same, 50% increased, and 11% decreased. Thus, 89% either increased or remained the same. The 11% that decreased could be explained by a combination of factors and "noise" including rater error, test-retest variability (i.e., tests taken on the same day had some percentage chance of differing), or actual "regressions" due to major life challenges resulting in cognitive or emotional stressors. Gains could be attributed to test "practice effects," but the 2-year average gap between retests makes that highly unlikely. These results constitute substantial evidence corroborating prior research that shows the ego development construct (with WUSCT) is developmental in nature – now shown for the STAGES assessment as well.

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7 The few retests that were less than three months apart were excluded.
Table 3. Longitudinal: prior vs. next scores.

<table>
<thead>
<tr>
<th>Prior Score</th>
<th>3.5</th>
<th>4</th>
<th>4.5</th>
<th>5</th>
<th>5.5</th>
<th>6</th>
<th>6.5</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5</td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>6</td>
<td>8</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>4.5</td>
<td>1</td>
<td>3</td>
<td>21</td>
<td>27</td>
<td>6</td>
<td></td>
<td></td>
<td>58</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>4</td>
<td>15</td>
<td>12</td>
<td>1</td>
<td></td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>5.5</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>9</td>
<td>5</td>
<td></td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Grand Total 8 15 36 48 28 7 1 143

Table 4. Longitudinal: prior scores vs. amount of change to next score.

<table>
<thead>
<tr>
<th>Prior Score</th>
<th>-2</th>
<th>-1</th>
<th>-0.5</th>
<th>0</th>
<th>0.5</th>
<th>1</th>
<th>1.5</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5</td>
<td></td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>6</td>
<td>8</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>4.5</td>
<td>1</td>
<td>3</td>
<td>21</td>
<td>27</td>
<td>6</td>
<td></td>
<td></td>
<td>58</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>15</td>
<td>12</td>
<td>1</td>
<td></td>
<td></td>
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<td>5.5</td>
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<td>2</td>
<td>9</td>
<td>5</td>
<td></td>
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<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Grand Total 2 2 12 55 59 12 1 143

Many of the test subjects entered a program aimed at personal and professional growth called "Generating Transformational Change," or GTC. This program included developmental models as part of the curriculum. The test subjects may have learned vocabulary that led to higher verbal-textual SCT scores without advancing their deeper "enactive or embodied" development. (The research, assessment tools, and adequate theory do not yet exist for allowing one to separate the verbal and non-verbal components of developmental change. If we focus solely on the 47 retests from non-GTC subjects, we see that only 17% of the retests led to a decrease in scores, again confirming the developmental nature of the ego development construct. The GTC cohort shows the most improvement overall, with only 8% of the retests resulting in decreasing scores).

Finally, we can focus our longitudinal analysis on the third tier, MetAware, which was excluded from our replication study with the L/CG data for reasons explained above. Table 5 shows compelling evidence for the developmental sequencing of O'Fallon's newly defined highest stages. Of the 84 retests for which the score was in the MetAware tier, 67% increased,
30% stayed the same, and only 4% decreased – i.e., 96% increased or stayed the same. These scores are an even stronger indicator of monotonic sequencing compared to the scores of all three tiers combined. The data is a strong indicator that, developmentally, each MetAware stage, sits after its STAGES precursor and before its STAGES successor.

**Table 5.** Longitudinal data when the new score is in the MetAware tier.

<table>
<thead>
<tr>
<th>Score Change</th>
<th>Prior Score</th>
<th>-0.5</th>
<th>0</th>
<th>0.5</th>
<th>1</th>
<th>1.5</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4.5</td>
<td></td>
<td>27</td>
<td>6</td>
<td></td>
<td></td>
<td>33</td>
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<td>5</td>
<td></td>
<td>15</td>
<td>12</td>
<td>1</td>
<td></td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>5.5</td>
<td></td>
<td>2</td>
<td>9</td>
<td>5</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td></td>
<td>3</td>
<td>25</td>
<td>45</td>
<td>10</td>
<td>1</td>
<td>84</td>
</tr>
</tbody>
</table>

(More evidence related to the Metaware tier is in the next section).

### 7. Analysis of Late Stage Patterns

*This section comes from the paper "Deconstructing Developmental Constructs: A conversation with Thomas Jordan and Tom Murray" in this issue.*

We have been engaging in conversations with Thomas Jordan (see the article this issue), who provided a critical inquiry into the STAGES model. After sharing our longitudinal data (above) with Jordan, he wanted a deeper look into the data to ask the question of whether the Metaware tier (as STAGES defines it) was necessarily built ("stacked") on top of the subtle tier (and did not seem to skip past it). To put it another way, he wanted to know whether those scoring in the Metaware tier also showed that they have the complexity associated with 4.5/Strategist, and did not present as a group displaying a lot of esoteric or spiritual language with little evidence of the rational, analytic, or self-reflective rigor needed to move into Strategist. To answer this, we ran an additional analysis to show the overall distribution of item scores for those who scored in the Metaware Tier. The figure below shows, for protocols with center of gravity values (ogives) of 3.0 to 6.5, what percent of the 36 item scores are at each level.
Discussion of results:

- You can see that for 5.0, 5.5, and 6.0 there are many scores in 4.5 (Strategist). (Recall that the ogive cutoff method prioritizes the higher scores, so the total score is not the average, and is often not the mode, i.e. top of the bell curve).

- However, the scores do tend to follow a normal distribution (bell shape) around the average, so at 6.0 and 6.5 there are naturally less and less in the Subtle tier.

- The 6.5 graph by itself might seem to confirm a suspicion that the metaware tier does not have many subtle tier scores, but (1) there are not as many scores there so it's a weaker data point, and (2) people tend to write close to their center of gravity or average, even if they have the capacity to write lower.

- Recall that with each tier the type of object changes, so the complexity about that object can start again at low and build up from there – so there may actually be a kind of reduction in horizontal complexity starting at 5.0 (as in Fischer's model, in which, for example, "single principles" follows "systems of abstractions").
We are finding that in general the scoring system puts more in the X.5 (active) vs the X.0 (passive) scores. We think this is because people in passive phases have a harder time finding he words, and drop down to the prior level for content.

Compared to a normal distribution, 4.5 scores have a lot of 3.5 scores, 5.5 surveys have a lot of 4.5 scores, 6.0 surveys have a lot of 5.0 scores; and 6.5 surveys have a lot of 5.5 scores – this many indicate that for higher levels, a person with a active (X.5) center of gravity uses more active language in general (and vice versa for passive (X.0)).

In sum, scores in the metaware tier (at least 5.0, 5.5, and 6.0) have substantial scores in the subtle tier, and in particular scores at 4.5/Strategist that tend to have high complexity.

8. Additional Inter-Rater Studies

[This section contains data and results not published previously, but summarized in "The Validation of a New Scoring Method for Assessing Ego Development Based on Three Dimensions of Language," by O'Fallon et al., 2020: https://doi.org/10.1016/j.heliyon.2020.e03472.]

The replication study described above included an IRR statistic for all levels, including the MetAware tier. That study was conducted using the first cohort of four trained STAGES scorers. As O'Fallon has continued to train scorers over the succeeding 4 years, we have additional data on the IRR strength of the instrument. The original study was a comparison at the survey level only because data at the per-item level was not available for the MAP scores. The more recent data includes per-item IRR statistics as well.

STAGES scorers are "certified" after completing a training program, which takes about one year and includes the supervised scoring of approximately 100 inventories. The scorers then practice their skills until they achieve greater than or equal to 85% correct scoring, as compared with a master scorer, for 10 consecutive inventories.\(^8\) This is for agreement at the inventory level.\(^9\) To obtain an additional indication of the inter-rater reliability of the scoring method, we can assess the item-level, or stem-level, agreement. We have data for the five most recently certified scorers trained over the last three years. Over an aggregate of 36 scores, the final 10 pre-certification scores showed that these scorers had a survey-level accuracy considerably higher than the 85% minimum requirement. Of the 50 surveys (10 each for five scorers), only one did

\(^8\) All the statistics are comparing the scorer to the expert. We cannot compare scorers to one another (i.e., obtain a multi-scorer inter-rating) because each scorer's list of final 10 surveys is unique; they did not score the same surveys.

\(^9\) Once a scorer is certified, STAGES International has several means of maintaining quality control with its scorers. First, there is an active email discussion list in which scorers post completions that are uncertain about how to allow the community to reflect on them and learn together. Second, the scoring procedure (scoring manual) includes additional secondary features of the text that are used to cross-check final scores, including a rubric of common concepts and terms used at each level. Finally, inter-ratings are periodically preformed to check scorer accuracy vs. a master scorer.
not have perfect accuracy based on the previously established gold standard. (because one incorrect result was one level off). Thus, the overall accuracy at the survey level was 98%.

<table>
<thead>
<tr>
<th>Scorer</th>
<th>Average Acc</th>
<th>Min Acc</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.88</td>
<td>0.72</td>
</tr>
<tr>
<td>4</td>
<td>0.93</td>
<td>0.83</td>
</tr>
<tr>
<td>3</td>
<td>0.91</td>
<td>0.86</td>
</tr>
<tr>
<td>2</td>
<td>0.94</td>
<td>0.89</td>
</tr>
<tr>
<td>5</td>
<td>0.97</td>
<td>0.92</td>
</tr>
<tr>
<td>Average</td>
<td>0.93</td>
<td></td>
</tr>
</tbody>
</table>

At the item level, agreement was also excellent (see Table 6). The average accuracy was 93%. When taking the average accuracy over their 10 scores, the highest was 97% and the lowest was 88%. In the set of 50 survey scores, the lowest average-over-items accuracy was 72%, and the highest was 100% (the majority of errors were off by one level). Four of the five scorers had at least 2 of the 10 surveys at 100% stem-level accuracy. This is strong evidence for the reliability of the scoring method, which, comparing these numbers to the main study in this paper, has improved in recent years, likely due to improvements in the training program.

9. Investigating the Validity of the Ogive Aggregation Method, Including Rasch Analysis

[This section contains excerpts from "Investigating the Validity of the Ogive Aggregation Method, Including the use of Rasch Analysis, for the Sentence Completion Test and the STAGES model," by Tom Murray, which is part of this issue – specifically, this section includes the executive summary from that paper.]

In this issue, Murray reports on an extended project to assess the psychometric properties of the STAGES SCT using data from 740 scored surveys. The goals of the research are to (1) apply item response theory (IRT) and Rasch analysis (a subset of IRT) to determine item-level psychometric properties of the SCT that were previously unaddressed in SCT research (2) to further investigate suspected problems with and propose alternatives for the ogive cutoff method for aggregating item scores in the SCT.

We focus on methods used to aggregate the 36 item scores into the total protocol rating (TPR), chief among these being the ogive cutoff method, and secondarily the less-frequently used total

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10 We use percent accuracy rather than Cohens Kappa here. The Kappa statistic is not well suited for high accuracies—see the "Kappa paradox" (Feinstein et al., 1990).
weighted score (TWS) method. We argue in detail that the ogive method has a number of drawbacks, including:

1. a lack of empirical support for discontinuous levels,
2. no population studies for Bayesian estimates,
3. difficulties estimating extreme values,
4. lower cutoffs that confuse development with "shadow" evidence,
5. sensitivity to error,
6. TWS misalignment,
7. additional issues with the TWS multipliers, and
8. errors in the ogive formula and assumptions.

The paper then describes the method and results of our statistical analysis of the 740 STAGES protocols using general descriptive statistics, IRT, and Rasch Analysis (a subset of IRT). Below is a summary of the findings. These findings hold for levels 2.0 to 6.0. For the rare extremes of 1.0, 1.5, and 6.5 surveys, there are insufficient data points for drawing confident conclusions.

1. **Within-test item normality.** A skew and kurtosis analysis show that scores within each survey are, on average, normally distributed. That is, the supposition that the scores "bell curve" within a survey would contain more items below the average score than above it is not supported.

2. **Item standard deviations.** The average standard deviation of item scores within a survey is remarkably similar across all developmental levels. Thus, the overall shape of the distribution of the 36 scores within a survey exhibits little change for individuals at different centers of gravity.

3. **Test length.** A Cronbach’s-Mesbah analysis of the Cronbachs-alpha score for successively fewer test stems shows that, for a half-item test, the reliability is still excellent (.95); that, even with 10 stems, the SCT has a high degree of reliability (.92); and that, at 5 stems, the reliability is acceptable (.85). These results support any future projects that use surveys with fewer than the 36 items.

4. **Factor analysis.** A factor/component analysis of the data confirms prior findings that the SCT loads on one factor (i.e., it appears to measure a single latent variable).

5. **Characteristics of and correlations among each item.** To test the general assumption that the SCT test items, which are designed to triangulate (parallax) the construct from many life contexts, we show that measures of difficulty (mean score) and spread (standard deviation) for each test item, are generally equivalent. However, these measures will vary in how they function per individual. The results, confirmed in the Rasch analysis, show that there is some variation among the items, but overall, they have similar difficulty and spread. However, the stem "I am..." stands out as being the least correlated with the other stems and as having the highest standard deviation. We also show a heat map illustrating the 36-by-36 item correlation magnitudes.
6. **Overall test strength.** Rasch and IRT analyses confirm that the test is robust and sound, as a psychometric measurement, across its entire range. Test reliability and coverage is excellent, and the items have good discrimination. Scoring is consistently of high quality across the items, similar to prior Cronbachs-alpha results.

7. **Construct levels of discrimination.** The test easily differentiates the six-person perspectives and, consistent with the model's hierarchical organization of three parameters, has more difficulty differentiating between levels at the granularity of 12 levels. The 12 stages defined by the model are spaced relatively evenly along the spectrum, supporting O'Fallon's conjecture that the STAGES model cuts the range into equal slices or provides a consistent "ruler," which is resilient to data collected in future studies from different populations.

**New-item-aggregation method.** Given the problems described for the ogive cutoff method, we experimented with a number of alternative methods for aggregating the survey items. Our goals were for a new method were that it;

1. be compatible with the expectation that, for a projective test, a person's true "center of gravity" will be evidenced from the higher scores;

2. avoid the problems of the ogive cutoff method and use something more straightforward and with fewer arbitrary parameters; and

3. minimize the differences between the new method and the prior ogive method, so that we would not have to alter the established interpretation of each level (i.e., remain consistent with how, for example, a 3.5/Achiever total score is understood in the field).

The methods we evaluated are described in the paper. Ultimately, we chose the method of taking the mean of the top 6 scores in the survey (the top one sixth of the scores if the survey has more or less than 36 items). Using the formula: \( (1.2 \times \text{AveOfTop6}) - 1 \), we modified this method slightly to produce a value that is, on average, close to the original ogive method. We call this value the **Focal Score**. Stages International will begin to phase in this method alongside the ogive method, which it will eventually replace over the next year or two.

The Focal Score is a continuous value. Among the benefits of this method are the value’s resilience to small perturbations or errors around any cutoff boundaries and its extensibility to different test lengths without having to agonize about revising the set of cutoffs. Another benefit of this method is that it does not confuse psychological regressions, or "shadow crashes," with low complexity or maturity, as is the case with the ogive method. Thus, the focal score can be used for scoring children, which O'Fallon has begun to do.

The revised scoring system will show several measures in addition to the Focal Score: The **Average** across all stems; the **Bottom Score** – the average of the bottom six scores, related to a regression or "shadow" score" for adults; and **Spread** – the spread score is the Focal Score minus the Bottom Score, which indicates the range of values in the survey.
The STAGES framework will gradually shift to the new Focal Score method. We remain agnostic on the question of whether other SCT frameworks should adopt this method (or any alternative to the ogive method). The ogive method has been performing well enough over the years; it is the default standard, and the effort to adopt a new method may well outweigh any benefits. The benefits of changing are greater for the STAGES model vs. other SCT variations because others use a fixed set of stems. STAGES, on the other hand, allows for the creation of valid surveys with new stems and of any length, which require ongoing adjustments to cutoff values. Such adjustments can only be made arbitrarily. Furthermore, automated computer scoring exists for the STAGES model (see www.stage lens.com), which means the SCT will become more practical to use for large-scale research where the validity of methods is critical.

10. Face Validity: STAGES Applications

The “face validity” of a theory, model, or measurement can be argued for by noting the extent of its use. Given its relative recency, STAGES has seen an impressive degree of use and adoption, including use in a number of doctoral dissertations. To date 12 dissertation (or academic thesis) research projects have made significant use of the STAGES model, and several more are planned for the next few years. This is encouraging for a model as new as STAGES. This journal issue contains papers describing doctoral research projects, including the following.

Dissertations and theses. The “Introduction” article to this journal issue contains a paragraph describing these eight papers appearing in the issue:


- **Gail Hochachka**, *The scenic route: A developmental approach emphasizes the importance of human interiority in transformative approaches to climate change*. Based on PhD research in progress.

- **Natasha Mantler**, *Women’s Authentic Leadership Development*. Based on a completed PhD project.

- **John Churchill** (with Tom Murray) *Integrating Adult Developmental and Metacognitive Theory with Indo-Tibetan Contemplative Essence Psychology*. Based on a completed PhD project.

- **Antoinette Braks**, *Transformational Executive Coaching: The Dimensions, Dynamics, and Dilemmas that Expedite Later Stage Postconventional Leadership Development from Achiever to Strategist*. Based on completed PhD research.


- **Lisa Buckley**, *Hope Examined Through a Developmental Stage Perspective*. Summary of a PhD research proposal.
The following five dissertation and research projects, which do not have representing articles in this journal issue, also use the STAGES model or assessment. I give longer descriptions of these projects here because they are not described in this issue’s “Introduction” article.

- **Eric Reynolds**, *Next-Stage Organizations: A Transdisciplinary Case Study*. The goal of this research was to study the relationship between individual and organizational development and transformation by ascertaining how a Founder/CEO’s development informs that of their organization – particularly in leaders or organizations characterized by the post-formal/post-conventional logics that seem necessary to navigate the complexities of contemporary leadership challenges. The study focused on three participants from the sample of CEO's reported on in Laloux’s (2014) book *Reinventing Organizations*, which studied post-formal (“teal”) organizations. The integral/transdisciplinary qualitative study included data from the STAGES developmental assessment, structured interviews, and a developmental analysis of content from organizational websites and other resources describing the organization. The study included two elements of the STAGES framework: developmental stage, and the epistemic "zone" of the content (from Wilber's 8 zones defined by individual/collective, subjective/objective, first/third person methods). Results of the multi-case study analysis indicate a direct relationship between the Founder/CEO development (and beliefs system) and those of the organization, corroborated Laloux’s assertion that his research is a composite representation of a organizations operating at the 4.5 level. Though conclusions from an N=3 case study are provisional, a major contribution of the research was the development of a new transdisciplinary method for assessing organizational development.

- **Jani Attebery**, *Regenerating Soil, Soul, and Society: Garden-Based Sustainability Pedagogy for Incarcerated Adult Learners*. (Completed PhD research). An exploration of the lived experience of prisoners participating in a Sustainable Agriculture Food Production program located within the Arizona State Prison. The mixed-methods study of 10 subjects included the STAGES assessment, a survey assessing past and present experiences of farming and gardening, semi-structured interviews, narrative journals, and observations. The STAGES developmental model functioned as a tool to interpret inmates’ experiences. Attebery used the model to describe the merits of, and suggest improvement to, these types of programs by providing flexible educational experiences that were sensitive to the developmental levels of participants.

- **Jimmy Parker**, *STAGES of Organizational Development*. This work reflects on the state of the art in assessing development at the organizational level, and describes some advantages that the STAGES assessment has in that domain. Parker is working on a PhD research project that will apply these ideas to the assessment of development at the group level.

- **Ron Hurst**, *Merging Characteristics of Median Stage Ego Development: When Does Self Initiated Reflection Begin?* (PhD dissertation proposal). A sample of 30 early career professionals in a Southern California distribution company will be given the STAGES assessment. From these, three individuals at each of the Conformist, Expert, and Achiever stages will be selected. Structured narrative interviewing will be used to ask subjects to...
reflect upon one or more critical career incidents – potentially life- or career-changing events. Transcriptions of subjects’ reflections on how the incident came to be, was or was not resolved, and how it influenced them will be analyzed for developmentally indicative langue and conversational patterns based on O'Fallon's STAGES model and Cook-Greuter's ego development model.

- **Steve Schapiro and Abigail Lynam**, *Transformations in ego development and intercultural sensitivity in graduate students*. This is a soon-to-begin longitudinal study of PhD students in a Human Development and Organizational Development program at a US graduate school. The STAGES assessment, an Intercultural Development Inventory, interview methods, reflective journaling, focus groups, and surveys will be used to study incoming students in pre- and post-assessments as they progress through the graduate program. The goal is to learn what best supports meaning-making development and intercultural sensitivity within the context of graduate study. The study will investigate how the developmental level of the student affects learning and how learning opportunities are utilized. The study will also examine the relationship between intercultural sensitivity and ego development to assess whether intercultural sensitivity is understood and practiced differently at different stages.

**Specialty Protocols for understanding life domains.** The section above, *Modifications to Test Length and Sentence Starters: Internal Consistency*, describes a number of "specialty protocols" that have been developed based on the STAGES model. We have mentioned six specialty inventories that have had their reliability validated psychometrically on leadership and organizations, love, education, self-understanding, climate change, and a children's SCTs as well as several in-development inventories related to relationships, religious beliefs, spiritual growth, money, hope, dementia, ethics, and parenting.

We have mentioned Hochochka's research using the climate change inventory above. Research is also being planned on how developmental levels differentially create meaning in the areas of money, interpretations of spiritual growth, hope, ethics, relationships, dementia, and love.

**Non-research applications.** Over 1500 professionals, including many coaches, therapists, organizational consultants, and educators, have taken workshops or training programs through STAGES International on aspects of the STAGES model, and dozens of these professionals are actively using the model in their work. Notable projects include the following:

- **John Kesler** is a theorist and activist in the field of civic and political civility who incorporates perennial spirituality, transpersonal development, and integral theory into his work. He developed and teacher (with colleague Tom McConkie) the "Integral Polarity Practice" (IPP), a transformational contemplative dialogic practice. IPP, which Kesler and McConkie have been teaching to hundreds of individuals for over a decade, makes explicit use of the STAGES model. (See the related article in this journal issue).

- **Marj Britt** is a Senior Minister Emeritus in the Unity Church; and is an author, lecturer, and workshop leader affiliated with the Called by Love Institute. Her work focuses on the
"soul's journey through life" as a "cosmic and human love story." Britt has incorporated the STAGES developmental model into her ministry, and she initiated the specialty inventory on love, which will be used in research projects in the future.

For 15 years, Geoff Fitch and Abigail Lynam, along with associates at Pacific Integral, have been running a 9-month cohort program called GTC. GTC makes explicit use of the STAGES developmental model in the design of curriculum and activities, and it teaches the basics of the theory to its participants.

Automated AI-based scoring and large-scale studies. Data from STAGES surveys have been used to create the first automated assessment tool for ego development and meaning-making maturity. As described at www.stageLens.com, the technology is based on a machine learning (artificial intelligence) algorithm that processed approximately 36,000 human-scored sentence completions to build a computer model for predicting developmental level based on sentence completion text. Its accuracy is less than human-scored methods – inventory-level root-mean-square error is estimated at 0.5 developmental levels vs. human checking. It cannot be used to give sufficiently accurate individual scores but is applicable to scaled-up studies that look for statistical patterns aggregated over groups such as pre-post intervention assessments and between-group differences. Several such studies are being planned, and unpublished pilot studies have shown the method to be effective in assessing pre-post gains for educational and transformational interventions.

11. Vocabulary Analysis

[This research has not been reported in any other publications.]

We have also been analyzing the frequencies with which words appear as development progresses through the stages. This produces a rich store of data that we have only begun to take advantage of. Figure 3 below shows a sample for eight different words.

These charts illustrate the relative frequencies of words across the stages. For example, for the word people: the graph title shows that it occurs in 0.457% of all completions in this data sample (this is from a large data sample, but is not our full up-to-date data sample, so the figure is just illustrative). The histogram shows, for each level, the relative percentage of completions at that level that contain "people." Note that it is only the shape of the graphs that can be compared, but not their height. E.G. "space" occurs much less frequently in the data sample (0.05% of completions), so a tall line in that chart cannot be compared to a tall line in the "people" chart. This data is from a sample of 995 surveys with a total of 35,820 completions; containing 1,160,885 total words; and 24491 unique words (ignoring common words like "the," often called "stop words"). The charts does not include stages 1.0 or 6.5, because there are much fewer completions at these levels, and they produce erratic patterns in the graphs.11 (Ignore the colors in these charts, they are an artifact of the software package used to make the graphs).

11 E.g. if there are only 10 6.5 completions, and the word "farm" appears in both, it was in a whopping 20% of all completions; but this may be so large that the bar for 6.5 overshadows the rest of the bars, which look so tiny that one can't make out the real pattern.
Love is one of the most common words in the database. You can see its relative frequency gradually increases, with a notable spike at 2.5 and 6.0. Family shows a gradual decrease, with a spike at 2.5/Conventional, which conforms to our understanding of that developmental level (i.e. the importance of conventional in-groups). Note that the STAGES scoring method does not look at specific vocabulary words, but scores on the three parameters: Concrete/Subtle/Metaware, Individual/Collective, and Active/Passive. "Family" is a concrete and collective word, so one might expect it to be prominent at 2nd person perspective (2.0 and 2.5). Note that a completion is scored based on its most developmentally advanced sentence or phrase – the phrase or sentence with "family" in it may be ignored when scoring, if there are parts of the completion that rate higher.

Both "work" and "try" exhibit the pattern that they are more prominent in active (X.5) than in passive (X.0) levels. This also conforms to what we might expect – the active/passive determination is based on verbs and prepositions, and these words would usually appear in an active phrase, especially when they appear as verbs. They spike at the more "conventional" levels of 2.5 and 3.5.

Love has an interesting pattern of spiking at 2.5 and 6.0, suggesting that these are two senses of the word (a conventional sense and a transpersonal sense). Purpose is interesting in that it does not show up at all (or negligibly) until it leaps up at 3.5/Achiever, which conforms to our understanding of that level.

Sense and space were chosen as words that gradually ramp up. One can see that at 5th PP especially, but also at 4th PP, one starts to be aware of subtle "presence," and phrases like "I sense that..." begin to appear. One's sense of time and space are said to alter in the Metaware tier, and we can see an interesting spike in "space" at 6.0.
These words/charts were chosen for illustrative purposes only, to make comments about the shape of the chart – but not to imply anything about the importance of that word related to other words (that requires additional types of statistical analysis, such as the "tf-idf" term-frequency inverse-document-frequency metric). These words were chosen because they coincide with our intuitions about these levels, and seem to confirm the theory. But many words do not have such striking patterns – again our purpose here is to illustrate this type of analysis, not to draw conclusions. Many of the most frequent words had more "boring patterns" that neither agreed nor disagreed with expectations. There were only a very few words that had unexpected patterns that seemed to contradict what one would expect based on how we understand each level. All of this will be reported on in more depth in a future paper.

As mentioned, we have only begun to use this analysis for specific purposes. We can use it in the computer-based automatic scoring project (www.stagelens.com). It could also be used within an exploratory or qualitative analysis of a particular life-domain, such as love; or in characterizing certain levels, such as 5th PP. O'Fallon is also using such analysis to find evidence for different types of state experiences at different levels (see O'Fallon's paper in this issue on States and Stages).

O'Fallon has also been using this type of vocabulary analysis as a cross-checking method during scoring. The main scoring procedure for scoring each completion, as we said, does not mention specific words or themes (this contrasts with the Loevinger scoring method). But once the total protocol score is determined (over the 36 completions), we can use vocabulary as a rubric to double-check the accuracy. Stems are scored independently (locally, not considering the whole inventory). The survey scoring procedure does allow for the scorer to make a judgment call to tweak the total score a bit up or down based on global considerations (especially if it is near a stage border-line). (This final adjustment allowance exists for all scoring methods in the Loevinger tradition. The adjusted score is what is given to clients, but note that it is only the pre-adjusted score that is used for all quantitative research studies). O'Fallon has developed a "rubric" method that shows common words from all four "quadrants" that appear at each level (and don't tend to appear before then). If an inventory does not have a sufficient representation of such words, the analyst is encouraged to double-check the accuracy of the final (adjusted) score.

12. Studies of Children's Inventories

[This section summarizes research reported in "Children's Inventories" by O'Fallon, in this issue]

Adjusting stage calculation to work for children: the Core Score method. As described in the paper "Investigating the Validity of the Ogive Aggregation Method..." (in this issue and summarized in Section 9 above) the ogive method currently used to aggregate the individual item scores confuses psychological regressions ("shadow crashes") with low complexity/maturity – i.e. momentary regressions to lower ego levels that may be triggered based on the subject of the stem. In Section 9 we described a new aggregation method called the "focal score" that does not have this issue. This allows the sentence completion instrument to be used for assessing children, and O'Fallon has begun a research study on just that.
More specifically, the body of research based on Loevinger's SCT was largely limited to adults, but included some teenagers. It included some studies of prison populations and people of lower socioeconomic and/or educational levels. Those exhibiting very low developmental levels, i.e. 1.0, 1.5, and 2.0, are demonstrating levels of meaning making complexity or self-understanding normally attributed to young children. (We assume, as prior researchers did, that test subjects exhibiting lower developmental levels did not have genetic or neurological conditions leading to intellectual disabilities, but that their lower-than-the-norm scores have developmental or psychological origins). The scoring systems used by WUSCT and MAP are geared to adult (and young adult or teen) populations, and one will get a 1.0/Impulsive or 1.5/Opportunist (i.e. 1st PP) completion score by showing regressive behavior, including impulsive outbursts with vulgarity or violence (e.g. "sucks," "I hate you"), or responding with single concrete words or phrases (e.g. Raising a family…”family”). (Note that these categories do not exhaust the possible 1st PP territory).

The ogive aggregation rules, inspired by Bayesian statistics, prioritize rare behaviors and require only 7 of the 36 completions at 1.0, 1.5, or 2.0 to score an entire protocol ("center of gravity") at that level (see "Investigating the Validity of the Ogive Aggregation Method...". Getting such a low rating can come from a very simplistic answer, but it can also come from what seems a narcissistic or impulsive answer. Thus we argue that, not only the item-scoring rules, but more importantly the ogive aggregation method, confuses actual level of development with "shadow crash" phenomena for lower level responses.

For example, a person may have 19 stems at 3.5/Achiever, yet will get an ogive score of 2.0/Rule-based if they have only 7 stems at 2.0 or lower. Clearly such a person's "center of gravity" should be more like 3.5 than 2.0. Because there are very few people with a center of gravity below 2.5 in the populations that currently use the SCT, this problem has not been particularly salient. But one area where it is particularly limiting is in studying children.

Other developmental assessments, such as those based on hierarchical complexity theory, do not have this limitation. Because the STAGES scoring method uses language properties rather than exemplars, it is not susceptible to this problem in scoring items; but, as long as it uses the ogive cutoff method, it is susceptible to this distortion at the whole survey level. Thus, as mentioned, we are moving to an alternate aggregation method called "focal score" that is more like an average.

**First assessment of children using the SCT.** With these biases in the scoring system removed, the STAGES model can be used to assess developmental levels and developmental phenomena in younger children. As mentioned above in Section 5, and detailed in the paper (in this issue) "The STAGES Specialty Inventories..." O'Fallon and colleagues have developed and validated a "specialty inventory" with sentence stems modified to work for children (the list of stems is given in that paper). The children's inventory, for pre-school through junior high school, was co-created by Jennifer Haynes, Kim Barta and Terri O'Fallon. It is meant to be administered orally and transcribed, especially to children in grade school.

In a recent study 53 children, age range 4-13 enrolled in a progressive elementary school in Brisbane Australia, gave verbal answers to in-person prompts; recordings of their answers were
transcribed. The paper "STAGES Child Research: Preliminary Report" by O'Fallon, in this issue, summarizes some preliminary results. It is the first study applying the sentence completion method to young children (performed using transcriptions from face-to-face verbal interviews).

11 new sentence starters were created to make a 36-item SCT suitable for children. Cronbach's Alpha test for internal consistency indicated that the test overall was valid (alpha=0.88, "good," almost "excellent"), and that the new items by themselves had only a "questionable" alpha (0.63). We will look into what this tells us about improving the new stems, but overall the test is valid enough to measure the development of the target audience.

The test was administered verbally to 53 children at their school in Brisbane, and the audio was transcribed. An expert scorer scored the results, which are shown in Figure 4 as frequencies in histograms at both the item level and the survey level.

13. Conclusions

We have summarized research projects that have shown substantial evidence of the validity and usefulness of the STAGES model. This research includes;

- a summary of prior research on the SCT method, which establishes a baseline for STAGES validity;

- a replication study showing that STAGES tracks well with the MAP method, from which it was derived, up to 4.5/Strategist, which establishes the STAGES scoring method solidly within the Loevinger SCT tradition;
studies showing that the STAGES assessment remains robust for \textit{variations in sentence stems and test lengths} (including the design of specialty inventories), which will allow for wider application of the ego development construct;

- \textit{longitudinal} data analysis that shows, among other things, that the MetAware (Tier 3) stages show the appropriate developmental progression, which is important because the studies mentioned in #2 did not thoroughly describe Tier 3 validity;

- additional analysis of \textit{late stage} sentence protocols, checking that metaware protocols contain a reasonable number of complex 4.5/Strategist item scores;

- additional \textit{inter-rater} analysis, including recently trained scorers and per-item IRR statistics, has shown exceptionally high inter-rater reliability, even at the item level;

- a research study that used \textit{item response theory} and \textit{Rasch analysis} to investigate many psychometric properties of the STAGES assessment and that also elaborated on a number of problems with the ogive item-aggregation method, suggesting an alternative. This modification allows us to better use the assessment for (1) children and (2) shadow evidence (vs. prior SCTs);

- a "Face Validity" section describing various uses of the STAGES model, including its use in 10 dissertation or thesis projects, and an indication of many projects to come;

- \textit{vocabulary analysis} showing promising analytical methods for (1) more detailed characterization of each level, and (2) refining the scoring system; and

- studies of \textit{children's item responses} that illustrate the first application of the SCT (that we are aware of) to populations in the grade-school level.

STAGES is a new developmental model and is sure to evolve as new empirical research and theoretical critiques accumulate in the future. It has established a strong foundation upon the Loevinger lineage of SCT assessments, which is quite robust, and our STAGES research is already producing results that inform all variations of the SCT.

Some of the more controversial issues surrounding the STAGES model include:

- characterizing development in the highest levels, 5.0/Construct Aware and above (Alternate theories exist in this territory, and little to no empirical work has been done to compare them);

- the comparative validity and usefulness of "wide" or "holistic" developmental constructs, such as ego development or Kegan's levels of consciousness, vs. narrower constructs, such as reflective abstraction, self-understanding, relationship sophistication, and leadership maturity (See Jordan and Murray’s article in this issue for more on this theme);
the definition of states of consciousness and the relationship between states and stages – O'Fallon has a particular theory of this worked into the STAGES framework, see her article in this issue, but it remains an active area of debate in the field; and

over-fitting of developmental models – developmental models afford the categorization of people into developmental levels, which, while especially useful, also risks the reductionism of using a single term to describe the complexity of human cognition and personality. (Though all the major developmental theorists warn against this, there are insufficient research and methodology best practices to support a rich articulation of individual differences that can enrich the description of a person's developmental profile).

In addition, an important open question for all developmental theories is how developmental phenomena apply to collectives (i.e., relationships, groups, organizations, and populations). Many non-validated theories and several small empirical studies exist, but this is a key emerging in need of additional work.

Future research comparing developmental models. Taking a larger perspective, we can compare the Loevinger SCT lineage to other developmental assessments to suggest important work yet to be done. Though many developmental models and psychometrically validated assessments occupy the long scholarly history since Piaget's early work, only a small set of these seem relevant for those attempting to put this research into practice. The first is Robert Kegan's construct developmental model, with its "Subject-Object Interview" assessment method. This process is judged by many, including Kegan, to be measuring a construct (e.g., meaning-making maturity or order of consciousness) that is closely related to the construct of "ego development" measured by the SCT. However, we know of no empirical work that investigates their correlation. Second are the two similar neo-Piagetian developmental theories by Michael Commons and colleagues (MHC, Commons et al., 1988), and Kurt Fischer and colleagues (Skill Theory, Fischer, 1980). There appears to be no published work that thoroughly compares and contrasts these frameworks from either an empirical or theoretical perspective, though some preliminary unpublished studies do exist. See Murray (2009) for preliminary musings. The theoretical foundations of these two lineages (Loevinger/Kegan vs. the neo-Piagetian) suggest that they should have important differences and useful similarities – all of which will hopefully be explored in future research.

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Seven Perspectives on the STAGES Developmental Model

Kim Barta

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Preface: The Shape of Consciousness

What shape is your consciousness? How is it constricted, distorted, expanded? How does it move? What is its balance? In this series of articles, I will discuss the shape of consciousness from several perspectives. I will discuss some of the tools I have used to explore consciousness with my clients, colleagues, and in workshops over the last 30 years. We will explore how the STAGES framework can lead to profound impacts upon the shape of our individual and collective consciousness… and its evolution.

I am particularly interested in models and methods that allow consciousness to evolve in a flowing, enriching, and fulfilling manner. My intention in the articles below is to provide tools to open this type of flow of consciousness. I also illustrate novel tools that we can use to understand and open the field of our conscious evolutionary growth.

*Psychological Applications of the STAGES Model* shows us how we can use the STAGES model in an effective and efficient manner for healing. It discusses how psychologists, coaches, guides and spiritual directors can utilize the stages model in healing and evolutionary growth. This chapter provides the most complete introduction to the STAGES framework itself.

In *Shadow Patterns and Other Conundrums of Consciousness* I discuss how shadows form, how to heal them, other patterns of consciousness and how to frame them for the benefit of consciousness evolution. I discuss types of shadows and how we need to understand the specific type of shadow if we are to heal and not harm. I also discuss height, depth and breadth orientations to consciousness and conscious evolution.
While our consciousness evolves, our models can evolve too. In *Typology and The STAGES Model* I discuss the evolution of typologies and the evolution of our consciousness within typologies. I share how we move from pre-typological awareness, through typological awareness to post-typological awareness. I discuss the benefits and pitfalls of the use of typologies.

All tools for understanding consciousness have some benefit and may also have some harm. In *The Illusion of Distinct Lines*, I discuss how the concept of distinct lines of development falls apart upon closer inspection. I share how even the concept of separate lines impacts how we hold our own consciousness. I share an alternative model that I think is more in line with neurobiological research and with spiritual orientations, and fits with my exploration of mind with myself and my clients in over 30 years of practice.

The parenting relationship has its own unique collective. In *STAGES and Parenting* I discuss this unique yet ubiquitous collective. By understanding the shape of consciousness of children and parents and the interaction between these shapes of consciousness we can shape our parenting in ways that will revolutionize human consciousness for generations to come.

What is a discussion of consciousness without some understanding of love? *The Love Matrix* discusses the shape of consciousness in love. I provide a model for understanding how we constrict our love and how we can expand it. I also provide a model for understanding how we often live in a sea of love without recognizing it and how we can begin to recognize the love coming into us every day.

Not only do individuals have shadow issues – organizations do too. In *Organizational Shadow* I discuss the shape of shadow patterns in organizations, how you can identify them and how you might go about healing them. I provide a model for identifying, understanding and resolving organizational shadow patterns.

I enjoyed writing these articles for you. I hope you find them intriguing, challenging, or at least in some way beneficial.

Sending love to you all,

Kim Barta
1. Psychological Application of the STAGES Model

Introduction – The STAGES Matrix

The ultimate frontier for humanity is the exploration of its own mind. The Human mind has more neural connections than there are stars in our galaxy – more than 100 of our galaxies put together. It is more complex than the most sophisticated supercomputers. The power of the mind can and has literally moved mountains.

There is a lot that can go wrong in such a sophisticated instrument, and a lot can go right. This article will discuss how the human mind can go wrong how it can go right and how we can create optimal outcomes in coaching/psychotherapy and mentoring. We can use the STAGES Matrix to understand both our potential and our limitations.

Below, please refer to Figure 1.1, the STAGES Matrix:

![The STAGES Matrix & the Three Questions](image)

**Figure 1.1.** The STAGES Matrix.
In the STAGES Matrix, you can find four columns. The first column is the person perspectives (pp). As you can see, we have 6 person perspectives. Each perspective is divided into two yielding 12 stages of development. Each perspective indicates a whole new way we can view the world in which we live.

The second column is the tier, which indicates the content. In each tier we can see different content. In the concrete tier we see concrete objects and their representations. In the subtle tier we see subtle objects...objects of mind and their representation. In the MetAware tier we see objects of awareness itself.

The third is the social preference which indicates foregrounding individual or collective orientations. We all have an individual and we all have a collective. This column indicates which we are foregrounding.

The fourth is the learning style which is how we are learning consciousness on our leading edge. First, we must receive to have knowledge of anything. Once we receive, we can act upon it. Once we act upon it, we can interact with it and with others with it. Once we have that learning mastered enough, we can become interpenetrative with it.

If you look at each box or cell in the matrix, you can see it as a representation of a piece of consciousness. The middle three columns operate together turning on and off like DNA to create a new expression of consciousness. The final column is simply a name to use as a place holder for that configuration of DNA consciousness.

If we look at each box or cell within the matrix, it represents a specific piece of defined consciousness. If each cell is healthy, it is like having healthy cells in our body. If a cell is distorted in our body, we can get sick. If a cell in our body is healthy, it leads to more health and vitality. Likewise, if a cell in the matrix is distorted, it leads to a sickness of consciousness. If a cell in the matrix is healthy, it will lead to a healthy vital consciousness.

When we use the STAGES Matrix as a guide, we can pinpoint exactly where the disturbance of consciousness is. This helps in several ways: First, we know exactly where to target explorations for healing. Instead of wallowing around in the whole field of consciousness looking for the source of the disturbance, we know exactly which cell of consciousness to target for healing.

Second, we can identify the type of disturbance, so we know what we need to do to do the healing. If the disturbance is in the concrete tier with reciprocity then we can target that directly. It is fast, efficient and the client feels heard and understood intuitively.

Third, we can track how any single disturbance disrupts the other cells horizontally creating a syndrome of disturbances that can be quite predictable. For example, if we have disturbance with concrete reciprocity then we can predict problems with concrete collectives.

Fourth, as a result of the horizontal configuration of disturbances, we can see how the disturbance echoes up the developmental levels creating predictable patterns of problems and
stuck places in the person’s life. For example, if a person has not been able to skillfully master concrete reciprocity, we can predict problems arising as they move into Subtle reciprocity.

Fifth, we can also see and track shadow crashes. For example, if a person is having issues with Subtle reciprocity, they are likely to shadow crash to Concrete reciprocity. While most people will just see shadow issues arising, we can see that this regression to an earlier level actually allows them to strengthen their reciprocity skills on that earlier level so they are strong enough to handle later level reciprocity. The same thing happens with Subtle active. Often when the Subtle individual active driver set is frustrated beyond the coping mechanisms of the client, they will shadow crash to 1.5 Concrete individual active. There are various patterns of shadow crashes. The advantage of the STAGES Matrix is you can track each and identify the specifics of how and why the client moved from one stage of development to an earlier one.

Sixth, we can predict what kind of stressors are likely to lead to further shadow crashes. For example, if a person is having a weakness with the individual receptive parameter set, we can predict that weakness will travel up the developmental trajectory with them affecting every developmental level in fairly predictable ways until they address and heal the specific distortion. As a result, we can predict that anytime the environment requires receptive awareness we will see a re-arising of that shadow issue.

And seventh, we can see what leading-edge developmental growth issues are likely ahead for an individual and help them address those issues before they become serious problems. For example, if a person is having problems with their active driver in the concrete tier (1.5), we can predict that as they move into 3.5, they are going to struggle as the new world situation demands even more sophisticated Subtle action. They will have problems again at 5.5 if they make it that far. If we have a client with a shadow issue with receptivity and they are at 4.5 we can predict a tough dark night of the soul as they move into 5.0. If they have a healthy receptivity driver, the move may be one of open bliss instead.

In addition to understanding how shadow manifests through each developmental level, we can also articulate what it means to be psychological healthy and whole at each level. Since each level builds upon (rather than replaces) the prior, it is important to aim for robust development (substantial "surface area") at each level. Applications of focusing on this "health and wholeness" side include the following. First, we can see how to construct parenting protocols to help raise the most health-conscious individuals. Second, we can see how to develop each cell in an individual to make it healthy and robust so that it will help other cells related to it (ultimately all are interconnected as you probably have already guessed). Third, we can anticipate upcoming existential issues and put practices in place to avert a crisis before it manifests. Fourth, we can utilize it to enhance group experiences like couples, experiential groups, and business teams. Sixth, we can identify and enhance the development along the way, creating protocols to make earlier stages more robust and current stages filled out so we can live the most optimal fulfilled life possible. Seventh, we can use the STAGES Matrix to identify what meditative or spiritual practices are perfectly targeted for the individual at this point in their spiritual evolution to further their next step of development.
Exploring health and disturbance are two sides of the same coin of consciousness. Below this article will go into more detail with each cell.

**The Perspective Column**

The first column is the person perspective. There are two aspects to a person perspective: the early and the late. The early is represented by a numeral followed by a .0. The early perspective is receptive. We must first receive information before we can act on it. The late person perspective is indicated by a numeral followed by a .5. It is active. After we receive information, we can act on it. We have six person perspectives each, with an early and a late dynamic. Each perspective builds on the perspective before it.

An early first-person perspective can only see things through their own eyes. A late first-person perspective only sees things through their own eyes but can act on it to get what they want. The difference in this one little shift is that of a baby crying until someone figures out what it needs and gives it to the child vs. the child that figures out how to push a chair up to the cupboard to get into the cookie jar while the parents are not looking.

A second-person perspective can see things through their own and another eyes. They can receive and act within the interactive dynamic. A late second-person perspective can see things through their own and other eyes and act not just within the interactive dynamic but see it from outside and act upon that interactive dynamic itself. The difference here is being in love and bounced around by everything our new lover does, vs. living on principles (rather than the social impulse of the moment) and thus being able to stay stable and loving even while our partner is getting upset with us.

Each of these perspectives: first, second, and the others, third, fourth, fifth, and sixth, holds the previous perspective, but sees beyond it – from a larger perspective. They include the original perspective but hold that perspective in a larger whole. Second-person perspective does not lose a first-person perspective. The first-person perspective remains intact and whole. Second-person perspective just wraps around the first-person perspective to a larger whole. Each succeeding perspective wraps around the previous whole to an even larger whole.

A third-person perspective can see things from an eagle eyes view, looking at both self and others independently. It can see things from first and second person perspectives both and also look at self and other from a remote and neutral vantage point.

A fourth-person perspective pans out even farther and can see the third-person perspective within a context. Being able to be in first, second, and third-person perspective simultaneously and in addition, hold all this within a larger contextual aware space – the context of culture, or the collective conscious for example.

A fifth-person perspective can see all this as well as see the fourth-person perspective (encapsulating all the other perspectives) within an awareness of construction – how mind itself constructs awareness and perceptions.
A sixth-person perspective can look at the fifth-person perspective within a collective whole of the human mind; understanding it from first, second, third, fourth, and fifth person perspectives, and how all of these are manifestations of the empty constructing collective mind of humanity.

**The Tier Column**

The second column is the tier column. The tier column is the WHAT of consciousness. The tier indicates what our consciousness is able to sense. The first tier is concrete. In our first four levels of human consciousness, what we are sensing is the concrete nature of reality. This is based upon our concrete senses of sight, sound, touch, taste, smell, and movement. We can also see the extensions of these with tools like telescopes and microscopes, radio waves, and others, these are all just tools to extend the capacity of our concrete senses.

As we move through the four stages, we can perceive subtle awarenesses too, helping us move into the subtle tier. However, our subtle awarenesses, like imagination, are still based upon concrete items. For example, we can visualize a tree, or a house or a friend, or running through the streets with a friend. But we won’t be able to visualize a strategic plan or the dynamic of how memes and emotional energy are passed through the family system.

The second tier is the subtle tier. In the subtle tier, we sense subtle objects. These subtle objects are different from concrete objects. A concrete plan to run through the streets with our friends grows up to a strategic plan that has no concrete pictures to it. Cliques that we live in concretely grow up to seeing culture, not cultural artifacts (concrete) but culture itself. In the concrete tier, we can see how we pass a plate of food around the table so everyone can eat. In the subtle tier, we can witness the passing of memes and emotional energy from one person or group to another and how those memes and energies affect people as they are moved around. In the concrete tier, we can think or cognate about anything. But we can't meta-cognate. We cannot analyze and think about our thinking itself. We can have rich emotions, but we can’t have meta-emotions, feelings about feeling. In the subtle tier, we can think about thinking, feel about feeling, think about feeling, and feel about thinking. It is this meta-capacity of thoughts and emotions that signals a clear shift into the subtle tier.

In the third tier, the MetAware tier, we are able to sense MetAware objects. This is a perception of mind awareness itself without concrete or subtle objects at all. We may include them, but we may exclude them as well, just like in the subtle tier when two philosophers talk about the nature of thought, neither may ever mention a concrete object. So too when in the MetAware tier, one can experience mind without a concrete object or even a subtle object. The mind is tuned to awareness of mind vs. thought.

Each tier can hold the previous tier but within a larger whole. In each tier, our senses get more refined. They are more able to perceive finer sensorial stimuli. This does not mean our concrete senses themselves get more refined. We may go blind and deaf and still be able to sense these more refined sensorial stimuli.
Yet, with a twist of irony, it is these same concrete senses, fading away in the concrete world, that are still the seed of our more refined subtle and MetAware sensorial capacities. There is still, sight, sound, touch, taste, smell, and movement. Just in a different dimension of awareness.

Each tier is defined by the objects one can “see” or experience. The concrete tier experiences concrete objects. The subtle tier experiences subtle objects and the MetAware tier experiences MetAware objects. One of the concrete objects is family. If we do not have a stable concrete collective object, like family, then we have more difficulty trusting a subtle collective when we move to the next tier.

And this brings us to the third column.

**The Social Preference Column**

The third column indicates our social orientation with the information the senses are picking up. Each tier begins with an individual orientation and ends with a collective orientation. When we are first introduced to a tier, we have to figure it out for our self, as an individual. Then, after we have a sense of our self as individuals, we can engage with it collectively in a group.

In the concrete tier, we go from all about me concretely, to all about us concretely. Look at me becomes look at us. Me doing what I want fades into the background of us doing what we want. Me wanting the toy takes second fiddle to us being friends.

In the subtle tier, we change our focus from ‘my’ thought processes to ‘our’ thought processes; my business dynamics fades into the background of how our business cultural dynamics operate. Personal success fades in interest while improving cultural dynamics like social justice for all steps into the light.

When we move from a concrete collective (2.5) to a subtle individual (3.0) we do not lose our collective care, we just add a new individual capacity around it.

**The Learning Style Column**

The fourth column indicates our leading-edge learning style. When we first learn, it is from receptivity. We cannot learn anything if we do not receive. Our capacity to receive information is fundamental to being able to perceive reality. Once we can receive and perceive, we can act.

The second learning style is active or agentive. Once we have received information, we can act on it. A child who is able to receive food on the one hand and movement of their limbs on the other can now figure out how to use the two to push a chair up to a counter to get a cookie, much to the chagrin of the parents.

The same thing occurs in the subtle tier. We need to be able to receive subtle data before we can act on it. We have to be able to observe thought processes before we can think about them and alter them, so they work more efficiently in our lives. While on the concrete tier, we can alter concrete reality to get what we want – pushing a chair to a counter to get a cookie; in the subtle
tier we can, for example, move thought around to make it more efficient. By directly changing our thought patterns we can live a more versatile, adaptive life.

Upshifting even more to the MetAware tier, we receive MetAware signals and capacities before we can act on them. We develop the ability to alter awareness patterns which is even more comprehensive and efficient, leading to increased capacity for fulfillment.

Of course, this improvement is dependent upon our skillful use of these additional capacities. We can also alter our concrete world, creating a disaster like lying to our parents which may lead to disciplinary actions. We might allow unethical corporations to write political policy leading to environmental degradation. On the Subtle level, we might be altering our thought patterns to become anxious or depressed instead of open and alive. On a MetAware level, we may engage in consciously constricting awareness or becoming self-indulgent with it vs. creating an open field of all potential.

Once we can do this, for better or for worse, (preferably for the better) for ourselves, we can then interact with others around this capacity. We call this reciprocity. In the concrete tier, we move from taking things out of others hands, or hitting them on the head to get what we want, to sharing and caring. We hold ourselves accountable to fairness because now we care more about the collective (third column, second question) than our individual self. In other words, we want the friendship more than we want the toy. Our primary way of learning is in reciprocity with others. By receiving what others want and identifying what we want together, we can come up with a better solution for everyone than by hitting and stealing.

In addition, in the second tier, we also move into reciprocity. We move from strategic plans for personal success, to designing corporate culture that makes everyone’s lives better. We move from discovering what makes us happy individually, to relishing deeper intimacy with others. A deeper intimacy that also allows us to see ourselves in a more complete manner – leading to deeply rewarding relationships. MetAware individualism focused on self-infatuation with our enlightenment transforms into MetAware reciprocity.

Once we can engage in reciprocal capacities with the content from the tier, we are able to perceive, we then move to interpenetration. Interpenetration is that capacity to see self and other in a united or unified manner. We are one, and that oneness can generate a whole new level of depth and understanding. On the concrete tier we all become one around concrete objects. We dress alike, we talk alike, we walk alike, we go to the same church or bar, or club. Our beliefs become alike, and we can feel a deep closeness in our oneness with each other. We understand how this occurs and we hold others accountable to their responsibility in it.

In the second tier, we are able to see the sameness of humanity regardless of culture, creed, race, sex, or even belief system. If we are oriented to ‘we vs. they’ based politics, in and out religious groups, and divergent belief and thought systems, we are not yet robust at 4.5. Finding our oneness in humanity itself, and of the manifestations of human consciousness, becomes the fulfillment at 4.5. We can watch the cyclical dynamics of the manifestations of consciousness impacting in cascading manner around the table or around the globe. Even more, we are able to see the thoughts, impulses, issues, and capacities in others are in us as well. We all drink from the
same well of humanity so the ‘me vs. you’ and the ‘we vs. them’ breaks down into a larger we-one (We-Won!).

In the MetAware, we unite not just with common humanity and consciousness manifestations but the whole of consciousness itself. This vast expanse of consciousness and its cyclical cycles and our capacity not only to observe them but direct and manage them leads to powerful impacts with minimal movement. The passion of this space does not require any concrete or subtle experiences at all; no manifestations of human consciousness are necessary for passion. But it can wrap up all of humanity in concrete and subtle into a MetAware space and act upon that MetAware space in such a way that it ripples throughout the whole system.

These drivers we have discussed turn on and off in a similar manner that DNA turns on and off. With each switch of a driver, we may accelerate to a new level of understanding, or shadow crash to an earlier level of capacity. When we understand the STAGES Consciousness Matrix, we can locate ourselves and our capacities in every situation in which we find ourselves.

**STAGES for Mentoring**

Next let us explore how we can further use the STAGES Matrix in mentoring: Psychotherapy, coaching, spiritual guidance. When people present with issues, it is often a smorgasbord of symptoms and struggles. Often, we rely on active listening and support the person to figure it out for themselves within an environment of unconditional love. This is a powerful and beautiful method for helping people heal.

But it can often take a long time. We can “hack” this process by utilizing the STAGES Matrix. Every cell of the matrix has a plethora of information. Each cell ties to the others in intimate and predictable manners. As a result, we can gather a lot of information in a short amount of time and utilize it to help our clients with more ease, efficiency, and effectiveness.

For example, let us take a male who presents because his marriage is falling apart. He loves his wife dearly, provides abundantly, and makes bountiful plans for making their lives better. He is often very successful in accomplishing his goals in both home and business. But still, his wife is unsatisfied, and is having a hard time understanding why, and expresses meekly she just feels he is not really emotionally intimate with her. You can see he wants to solve this problem but can’t seem to understand exactly what his wife is wanting.

With the STAGES Matrix, we can see that his individual subtle capacities are intact (3.5 individual, subtle [plans into the future] and active). The wife is not clear on what is dissatisfaction, so she is being had by vs. having (a .0 stage) and she wants more intimacy (an even stage: 2,4,6) so, she is 2.0, 4.0, or 6.0. If she were at 2.0, she would not likely be asking for intimacy she would be asking to get along with each other. Furthermore, she would likely be getting plenty of intimacy for her needs from a 3.5. And 6.0 is very rare and would understand clearly what they need from a 3.5, what they could provide, and what they could not. So, she is very likely at 4.0 seeking deep authentic intimacy but not quite sure herself what that really is. 4.0 would be a transformational leading edge for him – something he has never done before – but
is right at the apex of his leading potential at 3.5. With this information, we know exactly what to target for him – a 3.5 to 4.0 transformational crossover.

This existential move requires a shift of 2 parameters. We move from individual to collective and active to reciprocal (See STAGES Matrix). We know from the STAGES model that to help him in his marriage, we need to help him move into these new types of consciousness on the subtle level. Our targeted interventions will be to explore if he is able to engage in authentic self-expression in sessions and transfer that to his marriage. If this leads to high levels of disturbance, such as increased anger and temper tantrums, or active dominance of the conversation, we have new information. Angry temper-tantrums and dominance of conversation are a 1.5 dynamic (concrete individual active). There is a very high likelihood that this person learned that he could hang onto his concrete individual ego by engaging in temper tantrums or dominance of conversations. This is a common echo because 1.5 and 3.5 and 5.5 are all individual active types of consciousness (refer to the STAGES Matrix). As a result, they resonate with each other up and down the developmental spectrum. 2.0, 4.0, and 6.0 are all collective reciprocal types of consciousness. They too resonate up and down the developmental spectrum.

When we move from individual active to collective reciprocal, we have to change two parameters. This is a developmental consciousness stressor. How we handled it the first time (from 1.5 to 2.0) is likely to repeat when we meet this same challenge the next time (3.5 to 4.0). Since we see a regression to 1.5 when invited him into 4.0, we realize there was very likely a struggle letting go of the individual ego at the 1.5 to 2.0 crossover.

Since this strategy is repeating now as an adult, we can surmise it was successful in the past to hang on to the individual ego and resist full exposure into the 2.0 collective. There is a high likelihood that his parent was more passive, which allowed him to accentuate his active.

Reciprocity is a combination of reception and action. But we can often get the balance wrong or distorted. We can be overly passive, which allows others to walk all over us. We can be overly active and walk all over others. We can be right in the middle where we can be mutually egalitarian in our reciprocal experiences. Overly receptive or passive parenting often leads to overly active individual children who then grow up with a bias toward the individual active.

He chose a partner who was like the passive parent because that fit well with his overly active individual without creating much conflict. If he had chosen a partner who biases on individual active like himself, there would be a lot of stress and conflict as the two egos battled each other. However, we note that she responds “meekly” not with a great deal of active agency.

In addition, we can assess with a high degree of success that despite being biased toward the active part of the reciprocal dynamic he did successfully navigate a degree of health in the 2.0 and 2.5 concrete collective. We know this because he does love his wife vs. just being annoyed that she wants something else from him. He also provides for her and is quite generous. So, we see genuine care for another (developed at 2.0) and clear principles (2.5) that he lives by (providing and giving).
Thus, we have a reasonably healthy man who is successful in his 3.5 capacities, biases toward the active side of the reciprocal collective and will have some struggles in developing a truly egalitarian reciprocity on the subtle level until he develops a broader capacity to be egalitarian on a more concrete level.

We can begin helping him by having him monitor reciprocity exchanges. How many sentences does he talk vs. partner talk? How many decisions does he make vs. partner make? How often does he lead vs. partner lead? Monitoring and balancing reciprocity in the concrete collective (which he has skills with) will lead to a lot more success than trying to force him into 4.0 without foundational skills. Once these concrete skills are established, it is likely he will transfer them into the subtle realm without us even needing to work with it. But we can help there too by having him start with monitoring egalitarian reciprocity of plans with his partner. Planning into the future is an early subtle skill so we can start working with reciprocity with that skill as well with his partner. Then we can be introducing authentic self-expression and vulnerability as his skill base is intact and stable.

Notice that we have been able to track shadow issues, breadth issues, and leading-edge issues. We were able to zero in on the exact DNA cell of consciousness that needed work (reciprocity). We knew exactly how to help heal or make more robust that dynamic in him in shadow format (going back and reworking 2.0 reciprocity), in breadth format (working on reciprocity at his current developmental level of 3.5), and in a leading-edge format for improved marital relations (by moving into a shared deep authenticity and subtle vulnerability).

You might notice too that we can do the shadow work in a coaching format. This is basic skills training, not deep psychotherapeutic diagnostic shadow work. For example, we do not need to ask him to delve into and reexamine his relationship with his parents as might be the case in traditional narrative psychotherapy. And yet, it accomplishes the same outcome, and perhaps more efficiently. The reciprocity cell is healed or made more robust.

If you refer back to the original presentation, you might notice that is a lot of information to gain from three sentences and one reaction. Being able to glean this much information from limited time and exposure with the client allows us to begin fruitful suggestions that will lead to real improvements in the client’s life. It is efficient, effective, pervasive, and lasting.

Of course, we don't just assume this is all correct. We constantly monitor to see if our hypothesis is accurate. By utilizing the STAGES Matrix, we can, in addition to gathering a great deal of information in a short amount of time, also catch ourselves when we are operating on faulty thinking and make corrections immediately in session as new information arises.

**Summary**

In Summary, the STAGES Matrix is a vital tool helping us to resolve shadow, develop breadth and successfully navigate transformational existential issues in a clear, efficient and effective manner. The parameters within the STAGES Matrix provide multiple benefits. First, they provide an open field of exploration of each developmental level which can be constrained by stereotypes of each developmental level. The stereotypes we have today around each developmental level are
not the same as they were in the past, and mostly likely will not be the same as they will be in the future. By understanding parameters, we can free ourselves of the constriction of stereotypes. Second, each parameter has a healthy aspect and an unhealthy aspect. By understanding the parameters of the STAGES Matrix, we can zero in on the specific parameter or parameter set that needs attention for healing instead of wandering around in the vast territory of the whole of consciousness. Third, by utilizing the stages matrix we can gather a lot of information with each sharing a person reveals to us. Coaches, psychotherapists, spiritual leaders and others in the helping field will find STAGES to be a helpful and clear guide in their personal growth and in helping others.
2. Shadow Patterns and Other Conundrums of Consciousness

Introduction

As we explore the evolution of our consciousness, we inevitably come across struggles. Some of these struggles are existential in nature. Some are holes in our skill development. Still others are ghosts from our past…the Dark-side of our own being. This Dark-side carries many names: the shadow, the unconscious, the demons within. In this article I will outline the underlying nature of shadow. I will identify the forms that shadow takes. I will share with you how shadows form in the first place. What happens to shadow once it is formed: how it operates within us. And I will also discuss with you the resolution of shadow dynamics.

Shadows from our history inevitably create blind spots. These blind spots create holes in our current operational capacities. I will discuss filling in holes created both by shadow and by the very nature of time constraint upon the evolving carnal time bound journey to the incarnate timeless boundless landscape.

The next leading edge landscape on this journey has its own unique challenges. I will also share insights about handling our leading edge existential conundrums. The challenges that can and often do occur as we reach into the next ethereal threshold of our unfolding.

Let us start at the bottom, in the dark dredges of the human soul. There are three basic forms of shadow. These three forms are introjections, projections, and split ego states. All shadow dynamics fall into one of these three major classes of shadow. Introjects are the absorption of false/inaccurate information coming in from the outside that we accept as true about ourselves and/or the nature of the word. Projections are taking qualia of ourselves and putting it on others and/or the world. Split ego states are when we divide our self into two parts…the shadow side of this is when these two parts are in disagreement with each other or out of contact with each other.

Every shadow has a developmental level. Just like each of us do. I find the STAGES MATRIX to be the most valuable tool I have seen to identify the birth place of any given shadow, identify its current placement, track its history, and predict its future if left unresolved. Below let us take a look at the STAGES Matrix

At 1.0 we can see that the pattern of consciousness is concrete individual receptive. This is the first-person perspective and this stage represents birth to about one year old. During this period of time we are in deep receptivity. What we receive is sight, sound, touch, taste, smell, and sense of movement. These stimulations are provided abundantly by the environment around us. Much of what comes in is accurate information of colors, sounds, shapes, textures, flavors, odors, and movement. However, some of what comes in is not direct experiences of the pure environment, but behaviors from others that are distorted from the pure experience of the environment around us. For example, we might cry, which is a normal experience for a child. However, our parent might be very upset listening to the crying so they may punish us, and yell “stop crying.” As a result, we introject: “rejection of crying”. We somatically constrict…shutting down the full range of emotional expression. We swallow whole a false belief that crying is not ok. Now in a sense the belief that “crying is not ok” is accurate, because in that specific
environment crying is not ok as it leads to getting hurt. However, in the world our genetic heritage and primordial nature, crying is generally an ok experience that historically and genetically resulted in caring attention from parents. Unfortunately, the 1.0 child cannot make distinctions between healthy and unhealthy parental responses. So the introject distortion goes in whole, un-assessed, un-mitigated and generalized.

At 1.5 we can see (in the stages matrix, see Figure 1.1) the pattern of consciousness is **concrete individual active**. These are toddlers up to about age five. 1.5 children are running all over the house. They are tearing our pots and pans from the cupboards and banging on them. If they want something, they might just take it out of somebody's hand. If they meet with resistance, they very likely will hit the person so that they can get the item that they want. At 1.5 children are active agentive beings exploring their power and sending it out into the world. This is where projections are first born. What 1.5 children do is project onto the world is: the world wants me to have what I want. As a result, when the 1.5 child does not get what they want they can get very confused, upset and angry.

That we project out onto the world that the world wants us to have what we want to have is a very understandable thing. After all, the 1.0 child only had to cry and the parent would come and find out whether they needed: food, moisture, Love, changing, warmth, or movement. At 1.0 the child did not have to do anything for themselves, the world just gave the 1.0 child anything it wanted. As a result, at 1.5 the child now projects onto the world that that is the nature of life… that the world gives the child anything that it wants just because it wants it.

But now that the 1.5 child is active and getting into all kinds of things, so instead of indulging every need the child has, the parents start setting boundaries. The child has never known boundaries and does not understand them. Now the projection that they get anything that they want butts up against reality, the reality of boundaries.

It is this vibrant clash between the projection of the 1.5 child's wants and the clear firm unrelenting boundaries of the parent that puts the child into a crisis. If the parents do a good job of holding good clear boundaries the child's only solution eventually is to move into second person perspective.

At 2.0 (on the STAGES MATRIX) we can see that the formulation of consciousness is **concrete collective reciprocal**. To get into second person perspective, one needs to take their one whole perspective and divide into two. One part of them continues to see the world directly through their own senses and their own wants. But this new segmented part, the second person perspective part, begins to see and feel from another person's perspective. This allows a child to move into pro-social Life. It also opens up for the child whole new world of friendship and connections that it has never before realized.

The natural problem here is that now there are two perspectives in one mind. These two perspectives sometimes disagree. We still have the first-person perspective mind that wants what it wants when it wants. And we have the second-person perspective mind who wants to have friends and get along with others. Often these two mind-perspectives within the one-mind are at
odds with each other, often resulting in significant internal conflict. We call these minds within the one mind Ego-states.

Multiple ego states within one person can also be created through trauma. When a child is traumatized, often the child uses split ego states to deal with the trauma. One ego state holds the trauma while the other ego state continues to move on in the world and grows up. Thus, now we have three personas within one mind. This traumatized ego state within the mind has interactions with the other ego state within the mind and this leads to further cognitive, emotional, behavioral dissonance. This is the third form of shadow.

To summarize, we have three classes of shadow: introjects, projections, and split ego states. 1.0 is a place of deep receptive being and it is the birthplace of introjections. 1.5 is a place of agency, it is the birthplace of projections. 2.0 is a place of reciprocity and it is the birthplace of split ego states. Split ego states can be naturally arising as we move into new perspective heights or they can be induced by trauma.

Once we have shadow issues there are three processes that we can do with them:

1. We can wall them off
2. We can evolve them
3. We can resolve them

Walling off Shadow

When we wall off an ego state it is similar to how we have an infection in our finger. We wall off the infection so it cannot travel through our body and kill us. We do this until our body gathers the resources to heal the infection and then our body sends antibodies in to heal the infection so that we are whole again. So too, when we wall off a shadowy ego state, it is not in communication with the rest of the consciousness. Ideally, we need to come back when we gain enough resources to heal it so that it can be resolved and reunited with the rest of consciousness.

However, often what we do is continue keep wall it off. Every time it puts its head out to say “Hey I am here”, we cram it back down into its container, into its prison where it festers and festers until our whole system begins to feel the impact of the infected bit of consciousness. It becomes very irritated by the way it is being treated. Then something happens in the outside world and triggers this little walled off ego state to come out into full force. Then it takes over our dominant ego, and completely controls our thoughts feelings and behaviors for a period of time.

You might remember times in your life where you felt like you were behaving in a fairly mature manner. You had a plan; a goal and you were on your way to accomplishing it. Suddenly you find yourself triggered and started behaving more like a child…very upset, irritated, perhaps pouting a little and throwing little temper-tantrums. This is an example of a "shadow crash." A shadow crash is simply an earlier developmental level ego state that has been walled off that comes out of its prison, takes over the dominant ego and drags the entire person down into behaving from that earlier developmental level.
At some point, the shadow ego state burns itself out or goes back to sleep. Alternatively, we regain control and shove it back down into its prison and we go on as before hoping that it never happens again. In the meantime, the suppressed ego state festers again in the background just waiting to erupt at the right moment…which is often the worst time for the dominant ego state.

With the stages matrix we can track these shadow crashes precisely. As a result, we can identify the exact developmental level of the shadow. We can pin-point the exact parameter that was distorted. The specific parameter that defines that specific shadow issue. As a result, we can be efficient in targeting precise solutions for the specific shadow issue.

In the above case, we have an adult operating at 3.5 (Subtle, Individual, Active) and crashing to 1.5 (Concrete, individual Active). This is a common shadow crash pattern. Since two of the consciousness parameters are the same between the two stages any issues with that combination, when over stressed, will result in this pattern of shadow crash. The beauty of such shadow crashes is they give us the opportunity to rework the distorted parameter that was never healed. By healing it at its earlier echo, the healing solution then can echo upward allowing the later level self to heal as well.

There are many shadow crash patterns and I will not discuss them all here. With our limited space we will address the next process of what we do with shadow.

**Evolving Shadow**

The second thing that we do with shadow is we evolve it. When we evolve a shadow we take a shadow from an earlier developmental level and give it additional skills as it grows up through the developmental spectrum. Instead of healing the shadow, the shadow co-opts later and later levels of capacities and uses those ever-increasing capacities to accomplish its distorted shadow agenda. Let us begin with the classic projection of the 1.5 child. That the world wants me to have what I want. As we discussed earlier, if we wall this off it goes into hiding and erupts at inopportune times. However, we might not wall off this distortion. Instead, we might grow it up. Below is an example of the evolutionary mindset of a 1.5 shadow seed growing up through the developmental levels:

- **1.5**: The world wants me to have what I want to have. And I can go take whatever I want.
- **2.0**: My role is to manipulate other people to get what I want.
- **2.5**: I deserve what I want. It’s good for me to have it and I am morally justified in taking it.
- **3.0**: I can explore the world in new ways. This exposure to new experiences will help me to discover new wants, new pleasures. I have the right to discover and have any new pleasure I can discover, regardless of the law.
− 3.5: I can visualize my wants, plan into the future to get them (regardless of the law, consequences to others, or the environment) and then go get them by whatever means are available to me. I have the right to get whatever I want by whatever means. Including the manipulation of language and concepts of truth.

− 4.0 If I pretend to be deep and intimate and listen to others I can more effective in my manipulation of them to get what I want on a whole new level.

− 4.5 By understanding system patterns I can manipulate dynamics so that more things that I want will naturally flow to me. As a result I can get what I want for me with more efficiency and less effort.

− 5.0 By seeing the illusion in language and the projections people have but don't see, I will have increased command over how to manipulate people to my advantage.

− 5.5 By manipulating the boundaries of language and ethics and perceptual projections of others and communities to my advantage I can get what I want and get others to do what I want them to do, while maintaining the image I need to get more of what I want. I can recombine solutions in even more creative ways leading others to work for me with even less work and even less accountability on my part.

As you can see, Shadow issues grow up and can and will continue to grow up with more skill and sophistication until we resolve the issue.

If we have a shadow issue of not being good enough we can construct the same kind of evolutionary trajectory of that issue. Any issue we have may be locked in at the developmental level in which it was born or grow up through the developmental levels unchecked and gaining more and more skill and sophistication until they are so slippery they are nearly impossible to detect.

**Resolving Shadow**

The third thing that we can do with shadow is resolve it. To resolve it, we need to clearly understand the class of shadow. Each class of shadow requires a very different form of resolution. If we use the wrong form of resolution, we can actually cause harm and enhance the shadow issue.

Introject shadow are distortion's coming in from the outside. What we need to do to resolve an introjected shadow issue is to identify it and release it back to its source. A projection is distorted material inside of us that we put on to the outside world. To resolve a projection, we need to take that back inside of us. A split ego state is a division of our consciousness. What we need to do is integrate the split ego states into a unified consciousness.

If we use an interject solution with a projection, we will enhance the projection. If we use a projection solution with an introject, we will enhance the introject. If we use a split ego state
solution with an introject, we will lock the interject into the identity of the self. It is very important that we clearly identify the class of shadow and match it accurately to the appropriate form of resolution or we will cause damage and actually solidify the shadow issue.

In addition to the styles of shadow resolution we have three other forms of resolution that are important to discuss. These forms of resolution of issues can work with both shadow issues and other issues that we have in our life. These three forms of issue resolution are:

1. Height: the evolution solution
2. Breadth: the dilution solution
3. Depth: the dissolution solution

**Height: The Evolution Solution**

The evolution solution is about gaining greater heights to gain greater perspective upon the issue involved. By gaining height we can look down upon the issue, put it in perspective, so we can utilize multiple different shadow techniques to resolve the issue. The Evolution solution has 4 main steps to it:

1. In the world
2. Of the world
3. From the world
4. Beyond the world

When we are **in** the world, we are had-by it. We cannot see the issue because we are swimming inside of it. We do not feel like we have the power over the shadow issue because it appears bigger than we are. When we are **of** the world, we have 1 foot in and 1 foot out which gives us some perspective and some management capacities. When we are **from** the world, we have 2 feet out looking in at it (We have moved from subjective to objective). We still have some attachment; it is still something that we attend to, but we can be objective about it. This allows us to have much more control over our triggers, come up with clear viable solutions, and resolve the issue of that world view. We are still connected because we are from this world. When we move to **beyond** the world, we are no longer triggered by it. It does not have an effect upon us any longer. This process works not only with shadow issues but with any issue we have or any developmental perspective.

Let's take a simple example of a pacifier. When we are a baby or a toddler we are in the world of the pacifier. We need it and without it we may become extremely upset and so distraught that we don't know how we will survive. After a time, we are **of** the world. The pacifier is still vitally important, but not so much that we can’t step away from it. We have a sense of life outside of the pacifier and we can easily let go of it in ideal circumstances. When we are from the world, we have both feet outside of the world of the pacifier. We can remember what it was like to want it and sometimes we might even pick it up and put it back in our mouth, like a nostalgic observation, but then set it back down because we don't really want it. It still might grab our attention a little bit. Our mind still preferences it over another item, but also just as easily lets go of it. When we are beyond the world, we don't even particularly notice the pacifier anymore. Yes,
it is a pacifier but there's no attachment. There is no preferencing of any of the senses toward or away from the pacifier. It no longer carries any energy whatsoever for our attachment or rejection. We are beyond attachment and clinging or repulsion and pushing away. We no longer even live in the world of the pacifier.

You can substitute the word pacifier for any issue or perspective. For example, in terms of a shadow issue, we might get very angry and upset if somebody co-opts our role in the family. If our role is threatened, we may become so distraught we are completely beside ourselves. We may act out to get the role back, we may talk behind another back to try to tear them down, we might create other alliances to get our role back. We are in the world of the role. But at some point, we might find that we can shift our role in the family. We find that if a certain person co-opts our role, we can let go of it for a time, as long as we can have it back on occasion. In the meantime, it is ok to play with other roles. But we are still very attached to our primary role. At some point we can have both feet out of the role. We can look at the role, we can see what it did for us, we can see that we're OK without the role, we're still triggered into the role many times, but we can step back out and be completely out of the role and be genuinely happy to be out of the role. We are from the role, but we don't need the role any more. Eventually we move to beyond the world of the role. At this point the role no longer has any attachment value. We can step into the role if it's important for us to do so but we do not feel compelled to take on the role nor do we feel we need to push the role away. The role is just a role and it can be used or not used without attachment or pushing away.

We can track our development and spiritual processes with this as well. I have an ego. I am very attached to it. Any time this ego gets confronted I get very disturbed. I get so disturbed that I act out and do whatever I can to defend and honor this ego. I am in the ego. Next I can see a world outside of my ego. If my ego is confronted, I feel the disturbance but I have some capacity for managing it. While I may be very upset and have a lot of impulses for revenge, avoidance, or control, I can see a larger picture and manage my impulses to mitigate additional suffering to the ego. I am of my ego, but there is more going on that just ego. Next I can step outside of my ego. I can see it getting confronted and being upset by getting confronted, but the new space of consciousness has no trigger whatsoever. I am from my ego, but my consciousness is looking in at it not out through it. Finally, the ego has dissolved. Consciousness is fully inhabited in the new space. There are no triggers. Consciousness can choose to play the part of the old ego, but has no attachment to do so nor any pushing away of it. This is beyond the ego.

Each of these steps is very important. Each step marks a very important point in the transition. The first is a point of only awareness. The second is an either/or awareness, the third is a both/and awareness the fourth is empty awareness that allows the both/and to arise and fall without attachment. The first two are more subjective, the third is objective. Keep in mind “objective” is attached to the “objective” position. The fourth is beyond objective to a place of empty-full-non-preferencing.

**Breadth: The Dilution Solution**

The dilution solution is about utilizing our breadth. As we expand out wider, the material on which a shadow, or other issue, can hold onto becomes less and less until the shadow just has
nothing left to hang onto and it falls away into oblivion. For example, let's say we have an issue with being judgmental at 2.5. At 2.5 we are working with sacred principles. An example of a sacred principal might be “Love your neighbor as yourself”. But what constitutes a neighbor? Does that mean we love the people within a 300-foot radius of our house, but outside of that we might hold anger, fear, resentment, rejection, and a whole host of other feelings? When we work with breadth solutions, the space in which we hold our sacred principal gets larger and larger. We might expand it to the whole city, then to the nation, or even to the whole world. At this point whole world is seen as our neighbor and we don't have anything left to hold the hate, anger, resentment, fear, and other issues that we have. With nothing for these issues to hang onto they fall away.

Breadth solutions can work another way as well. For example, most of us in today's world don't consider our neighbors necessarily the people around us. The people of our community are all over the world, perhaps, but they tend to have a certain believe system. These belief systems might be religious in nature such as Christian, Jewish, Muslim, Buddhist etc. They might be conservative versus liberal. Whatever the collective meme is, we tend to apply our sacred principles to them. But we don’t apply our sacred principles equally to the other group. By utilizing a breadth solution, we expand our sacred principles of love of in group to larger and larger in groups until everyone is contained within that in group. With nothing left for our issues to hold onto they systematically drop away. Consider your best friend. Think of how you hold them with compassion, love, support, tolerance, understanding, and forgiveness. Now think of your worst enemy. Think of the person who triggers you the most. When you can expand that same genuine experience of compassion love, support, tolerance, understanding, and forgiveness to them you have successfully utilized a breadth solution for your issue. Breadth resolution does not work if it is only cognitive. It is easy for one to claim “I love the whole world”. It is another to FEEL it when a specific formation of personality is presented in front of you that you have to deal with.

Depth: The Dissolution Solution

The dissolution solution is a depth solution. Some people call this “metabolizing” the issue. With the Depth solution, we go into the suffering deeply. We sustain the pain of the suffering until the suffering dissolves. By having the courage to drop into the depth of the suffering with courage and sustainability we metabolize the issue until it dissolves into Pure Energy which can then be readily used by any aspect of consciousness for new purposes. To accomplish this journey successfully we need several capacities in place. First, we need an unconditional loving witness that holds an unconditional loving environment within which we conduct our Journey. Without this holding, when we dive into the darkness, we can get lost in it indefinitely. The more we swim in the lost space the more we train the neural pathways to keep firing in those ways. As a result, we can actually accentuate the problem we seek to resolve. The unconditional loving witness prevents this problem.

Sometimes the unconditional loving witness is held by another person: a friend, a lover, a therapist, a coach, a spiritual mentor. By having someone hold the unconditional loving witness space, we can drop into the depth of the suffering while being held in unconditional love. This external support can encourage us to sustain the pain that we would rather run away from, to
understand it intimately, and to hold the tension until the distorted illusions are clarified and transformed.

The second thing we need, is courage. Courage is what allows us to take this journey in the first place. The third thing we need is endurance. Endurance gives us the persistence to follow through to the end until it is resolved. There are also a host of skills that can help: altering cognition, altering emotion, altering impulse. We need access to all of our senses: sight, sound, touch, taste, smell, and movement/proprrioception. Ultimately, this is our journey: we are diving into a realm where our senses are holding a particular configuration, identifying that configuration, dismantling it, discovering the treasure that that configuration of consciousness was hiding, and returning with the treasure. Then we nurture that treasure to build a new configuration of consciousness.

**Functional and Dysfunctional uses of Depth, Breadth and Height**

If we are holding the unconditional loving space for ourselves, we need to understand something very important. Recall the evolution solution of height. You might remember the discussion on: in the world, of the world, from the world, and beyond the world. We must have a part of ourselves that is from the world or beyond the world that can hold this unconditional loving space. The other two stages do not have the strength in their perspective to hold the unconditional loving witness as we journey through the underworld. What can happen when we use the dissolution solution of depth without a corresponding skill in height is we can get lost in the under-world. As a result, we actually enhance the issue. The issue appears to become bigger than us. It controls us, and we re-enforce its power in our life. It is crucial that if we use a depth solution then we do it within the environment of unconditional love, courage, endurance, and persistence. And that that environment is held by an ego-state that is at least at the place of seeing itself from the word or beyond the world. If we do not have that presence then we need to find someone who does to hold it for us.

We can run the risk the other way as well. If we use a height solution without concurrent use of depth, then we run the risk of what is often called spiritual bypass. We rise to these transcendent places, but all of the issues are still there. When we come out of our transcendent height, we still get triggered by all these issues that populate our life. Indeed, these issues that populate our life will pull us out of our transcendence again and again until we dive into depth and breadth where vital aspects of authentic and whole resolution reside.

If we use a breath solution without a depth solution with it, a similar problem occurs. We can move to a place of unconditional love and deep compassion for everybody in the world, conceptually, until we get triggered. Then we succumb to the dreaded shadow crash.

Ideally what we want to do is use all three forms of resolution of an issue for complete and thorough resolution. By utilizing height, we can hold space for doing depth and breadth work. By doing depth work we have a solid foundation for our height work to stand on to reach new heights. If we do our breadth work then the platform is not only solid enough but wide enough for our new height to have freedom of movement in its new explorations. We enter new expansiveness instead of constriction.
That being said some issues are more prone to resolution by one or another of these issues’ solutions. For example, shadow issues almost always require depth to resolve. Social conflict issues generally require breadth. Existential issues require height.

A shadow issue requires going into the feeling to generate a release. Whether we are dealing with introjects, projections or split ego-states, all of them require an in-depth experience for several reasons. First, to get an accurate “diagnosis” of what kind of shadow we are dealing with, we need to go in and experience it. As we identify it we can know what to do with it. Once we identify it we need to develop more intimacy with it to complete the resolution. We need to experience all of the introject pattern to be able to release all of the introject pattern. We need to experience all of the projective pattern to be able to call it all back. We need to experience all of the Internal thoughts, feelings, and impulses of each ego state if they’re going to become intimate with each other and come up with mutually acceptable solutions to the problems. To try to solve shadow issues with Breadth or Height is simply bypass.

Many issues regarding social interactions, especially interactions between groups and interactions regarding social justice, often require breadth solutions. We can go as deep as we want and work on the issue so we are not triggered by those around us. But that does not mean that we will expand this solution beyond our own circle. As a result, as soon as we move outside of one circle, the same issue reemerges. We might solve the problem with one coworker but as soon as another coworker brings up the same issue we’re back to being triggered. Without a breadth solution we continually engage in the revolving door of having to rework the same issue with new people and new situations. On a larger scale what this means is social justice issues remain unresolved due to the endless revolving door syndrome.

Existential issues require a height solution. Existential issues often arise because of a conundrum that we cannot solve with our current perspective. The current perspective has many potential solutions. But none of those solutions by definition can address the existential issue. That's what makes it an existential issue. It requires a new perspective to solve it.

Recall our discussion of the 1.5 child moving into 2.0. The 1.5 child still wants what it wants. But these wants are butting up against other people's boundary setting. The 1.5 child can try many things to solve this problem. They might try hitting. If hitting doesn't work they can try the same solution in a different way. They can hit harder, they can hit faster, they can hit longer. That is the first level of solution: use what you already have, just do it harder, faster, and longer. This solution often solves the problem at hand. But sometimes it doesn't. Sometimes no matter how hard, fast, and long we work, it doesn't solve the problem.

So instead of using a physical solution we might use an emotional solution. We might cry, we might rage, we might deeply express our inner most feelings. Sometimes this works too. If those don't work, we can call on our previous in-class solution. We can cry harder, louder, for longer periods of time. If that does not work, we might change classes of solutions again. we might try an intellectual solution.

The intellectual solution is to solve the problem in a new way. We're going to figure out the smartest way, a trickier way, a sneakier way, an “out of the box” way to get what we want. And if
the first attempts don't work, we can escalate our in-class solutions again by being more clever, more tricky, continuing to be so until something maybe works. Once we see that this class of solution does not work, we might go to our final class of solution: the social solution.

In the social solution, we might try to get what we want in situations where mom is embarrassed to say “no”, such as in public. Or we might try to get what we want by asking dad after mom is already said “no”. Or we might pit one against the other…” dad lets me do it” … and that might manipulate mom into saying yes. Alternatively, we can work the easier person over and over until they can’t stand it anymore and they go convince the person in charge to give us what we want. If it doesn’t work at first, we can escalate our in-class solution: Faster, harder, longer.

As you can see here, from our own developmental perspective we can solve things within a class of solutions such as the physical. If that doesn't work, we can to continue to work within that class by doing the same things harder, faster, and stronger. If that doesn't work, we can cross over into another class. If that doesn't work, we can try using that class of solutions harder, faster, and stronger. And we do so again and again until we have exhausted every class of solution as hard and fast as we know how to do it.

The next developmental perspective's way to solve things is to combine classes of solutions. So, I might combine a physical and intellectual combo to try to get what I want. Or I might try social and emotional combination. I might even put all 4 classes of solutions together into one comprehensive system to try to get what I want. For example: (and notice in the following each class of solution coming on line: Physical, Intellectual, emotional and social) the child might cry when mom says "No"(emotional). And continue to escalate crying and anger (escalation of emotional in-class solution) and sadness…feeling so sad and with puppy dog eyes might say “dad said I could” (Social solution). He is in the garage; can you just go ask him...Pleeeeeeze? and then when mom goes to ask dad the little bugger runs and gets what he wanted and runs and hides. (– Physical solution; while the whole thing was set up in a cognitive solution.) Combining classes of solutions within our developmental level can be very powerful and effective! This is the power of breadth.

Let me summarize this before moving on to the next concept. First, we have a problem and we try to use a solution within our developmental level. Each developmental level has 4 classes of solution. These classes of solution are the same for each developmental level but our understanding of what they mean and how they can be used vary often dramatically from one developmental level to the next.

First, we try within our developmental level as class bound solution: Let's say physical. Then we use an extension in that class, stronger harder faster. We can try a different class of solutions, such as intellectual, and again accentuate that, smarter, trickier, more cleaver. Once we have two or more classes of solution, we can begin combining solutions. Ultimately, we can combine all four class solutions within a given developmental perspective in complex systemic ways to solve our problem.
Once all of these classes and combinations of classes of solutions don't work. Once we have tried every behavioral, intellectual, and emotional and social skill available. Once we have tried all the combinations available and they all fail, we have two options. We can give up. Or we can drive forward and crash into an existential crisis. Much of our distress in life is butting up against an existential crisis, attempting a breadth solution to solve it, burning ourselves out into collapse. Recuperating from collapse, and then doing it all over again. The suffering of these crisis is only resolvable through a height solution. Specifically, for our 1.5 child, only by going into 2pp and seeing through the eyes of the parents can the child solve this problem. Only by going into second person perspective and seeing what the child has never seen before... The pro-social world laid out in front of them… can they see what boundaries are, why they are important, and thus develop the capacity to hold the boundaries for themselves so they no longer get into trouble. In this transformational shift one is not solving the original problem, what one discovers is the problem one was were trying to solve is actually not the problem at all.

Now instead of trying to get the toy I want, I no longer even want the toy, what I want now is the friend. I want the family, I want community. No depth solution and no breadth solution could ever solve this problem. Only a height solution can solve these types of existential issues. These existential issues occur at every developmental transition. Height solutions do not give us what we want now. They transform us and deliver us from the want to a place where what we thought we wanted is meaningless (beyond the world) and a whole new passion arises.

With the STAGES MATRIX we can track these depth issues (and the regressive issues), the breadth issues and the height issues. We can pin point with laser accuracy where they are, what they need and how to solve them. We can identify where is shadow is on the developmental spectrum. We can then identify any one of the three forms of shadow. We can then apply the appropriate shadow resolution technique that will heal that shadow and certainly avoid causing harm that is so rampant today with randomly applying techniques regardless of the style of shadow involved. We can also assess whether the issue is best solved with a depth solution, a breadth solution or a height solution. We can assess which combinations and in which order will lead to success in the most organic, flowing, efficient, and effective way. Whether you are working with shadow issues, depth issues, breadth issues, or existential issues, the STAGES Matrix is a powerful tool for efficiency, clarity, and effectiveness.

Summary

In summary, we have three classes of shadow:

1. Introjections
2. Projections
3. Split ego states

1.0 is a place of deep receptive being and it is the birthplace of introjections. 1.5 is a place of agency, it is the birthplace of projections. 2.0 it's a place of reciprocity and it is the birthplace split ego states. Split ego states can be naturally arising as we move into new perspective heights or they can be induced by trauma. While these are the birth places where these types of shadow generally first arise, they may continue to arise at every developmental level thereafter.
Once we have shadow issues there are three processes that we can do with them:

1. We can wall them off
2. We can evolve them
3. We can resolve them

Walling off locks an ego state in its original developmental level. Evolving our shadow leads to the shadow developing ever increasingly sophisticated tools to use even if its original impulse it is acting out comes from an earlier developmental level. Resolving the shadow releases the distorted conscious energy into a free form that can be reutilized in more beneficial ways.

Each class of shadow requires its own style of resolution:

1. Introjects require release techniques
2. Projections requires re-owning techniques
3. Split ego states require integration techniques

If we use the wrong technique with a shadow issue, we can actually deepen the shadow issue rather than resolve it. We can solve shadow and other Conundrums of consciousness in 3 main ways:

1. Depth
2. Breadth
3. Height

With depth we use the dissolution solution. As we progress to deeper states of consciousness the issue dissolves from its distortion into deep authentic truth. With breadth we use the dilution solution. As we expand out broader, the issue becomes so diluted in the expansive awareness that it has nothing left to cling to and falls away into a wholeness of awareness. With height we use the evolution solution. We can also call it the illusion solution. With height we become aware of the illusions of our original issue and discover a later stage awareness that has greater passion for us than the original want. Some conundrums of our consciousness can be solved by any one of these solutions. However, some issues can only be resolved by a specific use of only one of them.

When dealing with shadow issues and other conundrums of consciousness these understandings can help us to navigate the murky waters. It can clear away the confusion of why using one technique in one area is unhelpful in another. It helps to understand there are multiple solutions to resolving issues. Some issues can use multiple styles and some require a specific style to resolve. By learning all the styles and not being attached to any specific one of them, we can enter the natural flow of shadow resolutions and the natural clearing of conundrums of consciousness. When we have and can utilize all these skills in a non-preferencing orientation, the resolution of our issues becomes less of a chore and more of a natural flowing unfolding.
3. Typology and The STAGES Model

Introduction: The Development of Awareness of and within Typologies:

Two very important aspects of exploring human consciousness are the fields of typologies and development. We will take a meta-perspective and integrate these themes in two ways: by discussing the developmental evolution of typologies and by discussing the human developmental evolution within typologies.

Let us begin with the developmental evolution of typologies themselves. There are many differences between typologies that may appeal to one or another individual personally. This diversity is wonderful so all can enjoy their own favorite style of typology. However, in this paper I want to explore the differences that indicate a developmental trajectory of typologies themselves. As I explore this aspect of typologies, I have formulated the following sequence for understanding this developmental evolution:

1. Fixed typologies:
2. Sequentially changing typologies
3. Simultaneously Inclusive typologies
4. Developmentally informed typologies
5. Integrated typologies

The most basic style of typologies are fixed typologies that test you, define your type, and lock you into that type for life. Astrological models of personality characteristics are probably the best known of these. Within psychology, the original Myers-Briggs is an example of this kind of typology. The original Meyers Briggs tests your type, claims you have been this type all your life, and you will be that type for the rest of your life. Such typologies are highly deterministic and unchanging. Below is an image of the zodiac from Astrology bay.

Some of these typologies allow for only one type and others allow for one dominant type and 1 or more defined sub types. The next “type” of typology acknowledges that while we have a type, this type may change over time. As we grow, we understand that we can move from one type to another. With this understanding comes more advanced typology modeling. Those who work with the Meyers-Briggs are now acknowledging this aspect of typologies. Another example of this is the Enneagram. In the Enneagram, while we might have a core type, there is at least a mechanism for revolving around the type sets so that you become all of them eventually. This provides for more holistic exploration of human consciousness.

Figure 2.1. Zodiac.
Another example of the inclusion of multiple types is Jung's 12 archetypes (see Figure 2.3 below). With this typology, each of us has a multitude of archetypes within us.

Both the enneagram and Jungian typologies indicate we are all of them at once, but that we may focus on one or another to develop it. The enneagram has a specific sequence to follow while the Jungian archetypes orient to a more organic explore-as-you-like dynamic. Both styles can be useful in different ways. The former has a specific lesson in how to go about accessing other types in a systematic and healthy way. The latter offers more flexibility. As a result, I can call upon whatever type is needed in the moment. If I need a Caregiver, I call on that type within me. If I need a Warrior, I call on that type. If you need a new type all you need do is look within and find it.
A next step in typological sophistication is Pearson’s adaptation of Jung’s 12 archetypes. Pearson arranged Jung’s archetypes in a developmental format (Carol S. Pearson: Awakening The Heroes Within). See Table 2.1.

In this adaptation of typologies, we can see that certain archetypes come online before other archetypes do. For example, the Innocent and the Orphan obviously must be developed before we can move into something like the Warrior and the Lover. And certainly, these would be developed before you would move into something like the Sage and the Wise fool. With Pearson we get both wholistic embracing of multiple archetypes as well as an understanding of archetypal human development overtime.
Table 2.1. Pearson’s developmental model of archetypes.

<table>
<thead>
<tr>
<th>Archetype</th>
<th>Fear</th>
<th>Strength</th>
<th>Weakness/Shadow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innocent</td>
<td>Abandonment</td>
<td>Fidelity/Trust/Optimism</td>
<td>Denial Reality/Seek Rescue</td>
</tr>
<tr>
<td>Orphan</td>
<td>Exploitation</td>
<td>Process pain/Interdependence</td>
<td>Irresponsibility</td>
</tr>
<tr>
<td>Warrior</td>
<td>Weakness</td>
<td>Fight what matters/Courage/Discipline</td>
<td>Compromised Principles</td>
</tr>
<tr>
<td>Caregiver</td>
<td>Selfishness</td>
<td>Give to others/Compassion/Generosity</td>
<td>Guilt Manipulation</td>
</tr>
<tr>
<td>Seeker</td>
<td>Conformity</td>
<td>Be true to self/Autonomy/Ambition</td>
<td>Commitment Avoidance</td>
</tr>
<tr>
<td>Lover</td>
<td>Loss of Love</td>
<td>Follow your bliss/Passion/Commitment</td>
<td>Seductive Sirens</td>
</tr>
<tr>
<td>Destroyer</td>
<td>Annihilation</td>
<td>Ability to let go/Humility</td>
<td>Addictive Compulsions</td>
</tr>
<tr>
<td>Creator</td>
<td>Inauthenticity</td>
<td>Self-acceptance/Individuality/Calling</td>
<td>Obsessive Distractions</td>
</tr>
<tr>
<td>Ruler</td>
<td>Chaos</td>
<td>Take responsibility/Control/Order</td>
<td>Tyrant</td>
</tr>
<tr>
<td>Magician</td>
<td>Evil Sorcery</td>
<td>Align with Cosmos/Personal Power</td>
<td>Evil Sorcerer</td>
</tr>
<tr>
<td>Sage</td>
<td>Deception</td>
<td>Enlightenment/Wisdom/Nonattachment</td>
<td>Heartless Judge</td>
</tr>
<tr>
<td>Fool</td>
<td>Nonaliveness</td>
<td>Trust process/Joy/Freedom</td>
<td>Without dignity/No Self Control</td>
</tr>
</tbody>
</table>

An additional feature that arises as an integral part of understanding archetypes developmentally is that we now have not just egalitarian types but hierarchical types as well. With Egalitarian types, all types are created equal. With the inclusion of hierarchical types, we see both the egalitarian and the hierarchical nature of typologies within. As a result, we can use this hierarchical nature to have later level archetypes help earlier ones. For example, the caregiver can help the orphan, the worrier can protect the innocent. This is different from just calling on you caregiver when it is needed and calling upon your warrior when it is needed. This difference will be illustrated later in this paper in the section on development within typologies.

**Human Development within Typologies**

With the integration of types and development we can understand human consciousness in a much more sophisticated wholistic way. Pearson starts with archetypes and arranges them into a developmental sequence. This next section will explore what happens when we start with development and view Archetypes from a developmental lens. We will discuss how human consciousness develops in regard to typologies.

First, I will propose a broad overview of how our awareness moves in regard to typological awareness:

1. Pre-typological awareness
2. Typological awareness
3. Post-typological awareness

In pre-typological awareness we have not yet formulated an understanding of typologies. Typologies are not in an infant or young child’s awareness. We begin to develop typological awareness in second person perspective. From here through fourth person perspective we can be enamored by various typologies. We can enter post-typological awareness in two ways. First, via height development. By 5th person perspective, if we have done our 4pp consciousness work, typologies begin to fade. Soon afterward we enter post-typological awareness.

Another way we enter post-typological awareness is from depth. This occurs when we move so deep that typologies become meaningless in their lack of granularity. We will discuss these styles of post-typological awareness later in the article.

For now, let us turn our attention to how human consciousness develops through the typological awareness phase (phase 2 above). As I explore human consciousness, I notice the following sequence emerge in our experience of typological awareness:

1. Fixed types: (I am a type: I have always been that type and I always will be.)
2. Sequentially changing types: (I have a type and this type may change with time.)
3. Inclusive types: (I have many types inside of me.)
   a. Sequentially: (I can see the types one at a time)
   b. Simultaneously: (I can see the types simultaneously)
4. Interactive types: (The types have their own relationships with each other)
   a. This occurs with two pairs of dynamics:
      i. The internal collective: I see the typologies interpersonally relating to each other within me
      ii. The internal/external collective:
         A. Seeing the internal typological collective in me I can see it in others and how the internal and external typological relationships play out in social interaction.
   b. The egalitarian and hierarchical nature of typologies:
      i. Égalitarian: Each type is equal to any other type
      ii. Hierarchical: Some types are more developed than other types:
5. Type systems: (The way I manage the interactions of types, the way they relate to each other, creates better or worse outcomes).
   a. Internally
   b. interpersonally
6. Integrative types: (Wholes) With better system design, the types integrate into larger wholes of consciousness until they become one whole.
7. Post-typological awareness: the types have dissolved allowing for post-typological consciousnesses to arise. But we retain the capacity to re-create and engage in typological interactions when helpful and can dissolve them again when they are no longer helpful.

To better understand this sequence of our consciousness in regard to types let us utilize the STAGES Matrix (see Figure 1.1 in the first article).
The STAGES matrix is a unique developmental model based upon the above parameters. The Stages Model uses these parameters instead of using descriptions like most other developmental models. The parameters are organized into sets. You can discover these sets by reading horizontally across the STAGES matrix. The 1.0 set of Parameters is Concrete, Individual, Receptive. The parameter set of 4.0 is Subtle, Collective, Reciprocal (see the first article in this series for a deeper explanation).

By utilizing sets of parameters instead of descriptions of developmental levels, the STAGES Matrix provides open fields of exploration of consciousness. Each level is defined within each parameter set without it being limited to what other people have experienced before. It is an unlimited field of potential...as long as it fits within the parameter set. If the expression of consciousness is beyond one parameter set, you simply move to the next parameter set which opens up a wider field. This is the transcend and include nature of development. Each successive developmental level holds all the previous levels within it but adds a new level of understanding.

Each parameter set holds a particular configuration of human consciousness. From research we know that these configurations follow a particular sequence. The sequence is intimately connected to the "person perspectives" (PP in the diagram). On the left side of the STAGES matrix you see the person perspectives from 1.0 through 6.5. In the next column you see the Tier category. The Tier column lets you know just what it is that consciousness is aware of. Is our consciousness aware of Concrete objects, Subtle objects or Metaware objects? The next column is the social preference column. This column lets us know if we are preferring an individual understanding of consciousness or preferring a collective understanding of consciousness. The fourth column is the learning style column. In this column we can see that we sequence our learning style from receptive to active to reciprocal to interpenetrative. Once we have completed this learning cycle on the Concrete tier, we repeat this same cycle on the Subtle tier and then again, we repeat it on the Metaware tier. The fifth and final column is simply a name column for each stage.

Each parameter set can be considered a developmental typology. As a result, we can see in the stages matrix 12 developmental "types." When we progress from one developmental stage to the next, we transcend and include it. As a result, the field of typologies we can use to understand our consciousness grows as we grow. We have more access to more type sets than we did previously. 3.0 has access to all of the typology sets previous to it but does not have access to 3.5 and later. 4.0 has access to 4.0 and all those sets earlier but does not have access to 4.5 and later.

Not only can each developmental level be considered a typology, but each developmental level allows for a certain type of typology to arise within it. Remember Pearson's arrangement of Jung's archetypes into developmental levels. In general, we can note that the innocent and the Orphan are types that arise in 1st PP. The lover and the Warier are two types that arise in 2nd PP. the Seeker, Lover, Destroyer and Creator all arise in 3rd PP. While the Ruler, Magician, Sage and Fool represent 4th pp types.

Keep in mind that when we are in 1pp we do not see types or typologies...we are in pre-typological awareness. However, when we look back on our own 1pp we can see typologies emerging at those developmental levels. It is when we look back on ourselves that we can see our
own innocent, our own orphan within. In addition, we can see such typologies continuing to operate from a 1st PP orientation within our current lives. If we don’t attend to these earlier developmental types within us, they can co-opt our later level awareness leading to what I call a shadow crash. A shadow crash is what happens when earlier developmental orientations out of our awareness take over our consciousness. We find ourselves suddenly acting like a person who is significantly earlier in development than our common way of operating. Suddenly we find ourselves acting like a child might.

With Development applied to typologies we can see how we can grow our typology sets in depth, breadth and height. Depth is how intimately we know our typological self. Breadth is how varied we understand our typological self, Height allows us to develop new later level typologies that we can functionally have at our disposal.

In addition to depth, breadth and height, we can also go back to earlier typologies and develop the depth and breadth of each of these earlier typologies. When we take these journeys to our earlier typological selves, we can provide a stronger base for the later developmental levels and typologies with them that "sit on top" of the earlier level. As a result, we also eliminate or reduce the frequency and intensity of our shadow crashes.

Depth, Breadth and Height intimately interact with each other. You cannot gain height without some development of depth and breadth. Once we develop enough depth and breadth, the height we later gain can provide crucial perspective to broaden and deepen those earlier styles further.

Let us now refer back to the STAGES Matrix. When we understand the typology parameter set at each developmental level, we know exactly what to work on to deepen it. If we are at 4.0, we know we need to deepen our understanding of subtle consciousness in a collective using reciprocity. What this means in real life is we seek to share our deep authentic self with others with similar capacities and desires in an egalitarian manner. We seek deep authentic intimacy, and wish to build the skills associated with it.

In regard to types we might, for example, deeply understand our own unique Sage self. Then we may access this Sage self while interacting with others. By having our Sage-self interact with others, we learn even more about our Sage-self. We might learn about how wise we are, we might learn about our subtle narcissism. Either way we learn more about ourselves.

We can broaden our 4.0 types by getting to know not only our Sage-self, but also our Magician, our Fool and our Ruler. We can broaden our typologies by learning not only Jungian archetypes, but the Enneagram, the Myers Briggs, the Zodiac and others. One step further, we can broaden even more by getting to know all of our Enneagram types within, all of our Myers Briggs types within and all of our zodiac types within and pursue any other typology styles out there and get to know ourselves through each type within those typologies as well.

By gaining height we gain access to more typologies. If we are in 3pp we are limited to the types that we can genuinely get to know and functionally use. As we move to 4th pp we gain access to the genuine and functional use of more types. As stated earlier, the Sage and Wise fool are not as readily and fully available to a 2nd and 3er pp as they are to a 4pp.
Referring back to the STAGES Model, limitations and problems arise when we distort or constrict any one of the 3 parameters in a set. If, at 4.0, we constrict the Subtle parameter we are not exposing ourselves to enough Subtle consciousness. We can increase our exposure by reading subtle information about things like goal setting, future planning, systems dynamics, and psychological typologies. On our inside, we can explore our own archetypes/typologies and ego states to create deeper self-insight.

We can expand the 4.0 collective parameter by exposing ourselves to deep intimate conversations and connections with others. We might do this in our everyday lives with friends and family. We can also do this in workshops teaching things like psychological growth. We can also engage in intentional experiential subtle collective experiences.

At 4.0 we can constrict our reciprocity parameter by only studying these things we just discussed, but never engaging these ideas and experiences with others. Even if we do engage with others with these subtle topics, we may not do it in a truly reciprocal manner. We might dominate by taking up most of the air time. Or we may defer, and not take time to share about ourselves. Noticing the egalitarian balance in reciprocity can help us to expand the reciprocity parameter to its full potential, challenging us to learn to defer if we tend to dominate and to speak up if we tend to defer.

Similarly, on our inside we can begin to explore our internal subtle self and subtle collective. We can explore all these types inside of us. I get to know, as stated earlier, the Sage, the Magician the Ruler, the Creator the Orphan the Innocent and all others within me. We begin to want to get to know them all. Then as we can identify and become intimate with them, we can also let them engage in reciprocity with each other creating an internal Subtle, Collective, Reciprocal typology parameter set within us. We now have, for example, the Caregiver, lover, creator, warrior, magician, etc. all sitting down at the table having a discussion with each other within us. As we do this, we develop our internal Subtle collective reciprocity: The Subtle Collective: the archetypes within… and the Reciprocity: all of these subtle archetypes talking and listening to each other.

Finally, we can extend our consciousness capacities by moving to new developmental levels thus increasing our field of typology sets and understandings of consciousness. For example, if we have a clear understanding of our internal archetypes and they are in interaction with each other we can move from 4.0 to 4.5.

The only change in the parameter set here is the learning style. We move from reciprocity to interpenetrative. What we do is we start observing the way we are interacting internally and come up with more skillful systems of interactions within… among the internal archetypes. When we get good at this all the archetypes begin to work seamlessly together. We have created a smooth operating system within. Eventually we may get skilled enough to create a system that becomes one whole interpenetration. If we do this, we are nearing the end of phase 2: typological awareness and heading into phase 3 post-typological awareness.

Meanwhile, externally we may be able to see all the types in others. We may see that those types in them are doing similar things that they those same types are doing inside of us. We
realize that whatever we see in others we can see in ourselves and whatever we see in ourselves we can see in each other. Healing self means healing other and healing the other means healing the self. Typologically speaking, we become interpenetrated internally/externally. When we get here, we begin to be able to accurately predict our own and others behaviors. We can also begin to predict with increasing accuracy the outcome of any given set of interactions between people.

**The Development of Understanding Typologies**

Next we will explore how our understanding of typologies changes as we develop. At 2nd person perspective, and perhaps at 3.0 as well, we understand typologies in terms of labels that authorities or peers attach to individuals. We might also orient more to conventional (traditional) typology systems. For example, when labeled as a "Capricorn" we might read the definition of Capricorn in a newspaper section and find a sense of self through that definition. We will tend to view typologies as fixed deterministic and unchanging.

As we move into 3.5, an active stage, we begin to use typologies as tools to improve ourselves and better understand (not just label) others. For example, we might be able to utilize our understanding of our type to help us get a job that fits well for us or to succeed in life better or different ways. We may still view typologies as fixed and unchanging, but in contrast to earlier views, we might see them as tools we can use to make decisions; and we have increased ability to consider different typing systems. But ultimately, we see ourselves as fixed at a particular type's characteristics.

This idea of type stability might actually feel safe and secure. The typologies block off a little piece of consciousness out of the whole. The whole of consciousness is a big and sometimes overwhelming space. One can easy to get lost in it. Having one little piece blocked off allows us explore that one little piece of consciousness without feeling overwhelmed.

However, we can get lost in the typology and have the type define us: I am defined as a caregiver so that is what I will be… and I make that my identity. I was scored as a 5 so I read up on 5 on the Enneagram and that is who I am… and I fashion myself into a 5. My Astrological chart says I am a Cancer so I read up on Cancer, develop a Cancerous personality, and die of Cancer (ok I am playing here). The point, and the problem, is the type begins to define us. As a result, we don't get to know who we really are. We use the type not to discover who we are uniquely but to have a safe sterile sense of identity. This typological identity is a false copy/paste identity. You are not a 5 or a Leo or an INFP or a Magician. You are YOU.

We have gotten it all backwards and upside down. Typologies are an initial inroad to getting to know our deeper inner selves, not an avoidance mechanism for constructing a false template self. So now that we have an inroad to the self, we begin to dissolve the templates and get to know the true authentic self. Who am I as a Warrior? Who am I as a 3? Who am I as a Capricorn?

As we grow into 4.0, just one archetype can begin to feel less like a safe haven and more like a prison. At that point we will want to explore other “types” of consciousness. We will start seeing how we are multiple types. We may notice we express different types sequentially. For example, at one point I might come from a Warrior and the next time I might come from the Caregiver. I
might come from a 7 one moment and a 4 another. I might behave like a Taurus in my family but like a Virgo with my friends.

Later in 4.0 we might notice simultaneous typologies occurring within us. For example, I can see my Caregiver, my Warrior and my Lover all operating simultaneously. I can see the 7, the 5, and the 2 in me all at once. I am aware that I am like a Capricorn, Leo, and Virgo at the same time. When we get really skilled at this, we can see how we can hold awareness of all of the types at once. We have all of the types engaged in community within us. Sometimes these communities have factions or clicks and sometimes we can have one big happy community of archetypes within.

The next sequence in the evolutionary journey of types, we can observe how these different aspects of our typologies are interacting with each other in our internal collective. We move from identification of the different types within us to developing intimacy between the different types.

The Enneagram introduces us into this understanding and offers a pathway for some aspect of intra-typology relationship and intimacy. However, it is very mechanistic and limiting. At some point we allow all the types to begin to interact with each other in a more organic manner. This allows for more genuine intimacy between the internal types. In the case of the Enneagram, imagine any given number being able to be in interaction with any other given number and develop an intimate conversation with it all internally within you. In the case of Jungian Archetypes any given archetype can interact with any other given archetype, listen closely to each of their needs, wants, fears, hopes, etc. It is this intra-type intimacy that leads to a deeper understanding of the internal collective self.

This brings us back around to what we mentioned earlier, the rigidity of the types begins to fall away. As the multiple types within us interact with increasing intimacy (depth) we see how each archetype within has its own unique flavor for us. The lines begin to blur between each type. At this point we spend less time reading about what my type is and more time intimately getting to know the unique flavor of me as a version of the type. Eventually the type itself fades completely, giving way to the more nuanced ego-state...or simply a sub-personality that need not have a name from any formal system. You can’t get to that level by reading books. It only happens in the courageous inward journey to your own unique soul self. As we explore this, types fall away in the intimate depth of each nuanced self. We enter post-typological awareness from depth. As we allow each nuanced inner-self to interact genuinely with every other nuanced inner-self, we get to deeper more authentic self-intimacy.

At (late) 4.5 we begin to really understand the systemic dynamics of how all the types (and the ego-states that hold them) inside of us are operating and how they are interacting with each other. From this vantage point we can see that some environments and styles of interacting within the internal community lead to better or worse experiences. We learn to adjust that system so that the types get along better within us. We learn how to build a better internal community.

How we organize this in internal collective system has a significant impact upon how we interacted externally with others. The reverse is also true. How we interact with others and how
others interact with us has an impact upon how we can conceive of configuring the internal collective dynamic. As we expose ourselves to others who are self-organizing their internal complex adaptive systemic communities, we gain more wisdom in how to do so for ourselves.

When we take a Meta-view upon this intra-inter-personal dynamic, we can begin to observe how the internal collective of types within me interact with the internal collective of types within you in our shared external we-space. We learn how to adjust the internal collective within to adapt in the moment to the expressions of the others internal collective interactions. As a result, we can build better external communities at the point of interaction with others in the ever-arising moment.

For example, if I have not developed my internal Innocent very well and I'm coming primarily from my internal Orphan it might have a big clash with your Orphan over some power dynamic. On the other hand, I may clash with your Innocent by taking advantage of you. This may bring out your Warrior which clobbers my Orphan for hurting you. As a result, I might bring out my Warrior and we end up in a Warrior-Warrior clash. Thus, we can see typology wars within and between us. Once we can see this, we can see it play out on a larger scale as well, as groups and nations play out different typology sets leading to peaceful alliances and bloody wars.

Instead of entering into a Warrior-Warrior battle, I might bring out my Wise fool and undermine your Warrior leaving your Warrior defenseless. You then might bring out your Sage and we convert the bloody battle into a communal rejoicing of togetherness in the wisdom/folly polarity of life. We become conscious co-creators of the internal-external community as it unfolds in the ever-arising-moment we-space.

As stated earlier, we can also start becoming wise to how our internal dynamic system is operating. If we learn how to construct our internal system in a way that all of the typologies operate smoothly, coherently, compatibly, and in an integrative fashion, we can lead a very peaceful smooth life.

By holding all of the archetypes within us and understanding how they interact with each other, for better or worse, we are more able to understand how to interact with others when they approach us with any particular consciousness set of archetypes. That is, if we truly understand both the shadow and the light side of our own Warrior, we will understand how to handle another person when they come at us with their shadow Warrior without creating an interpersonal shadow crash.

If we understand the shadow and the light side of our 7 and our 1 on the Enneagram, we are better able to understand another when they come at us with their shadow in a 7 or a 1. As a result of doing the intra-personal work we have more smooth relations inter-personally. Thus, we elevate the we-space to healthier and healthier forms of systemic interaction of internal archetypes. As a result, our one little drop of wisdom in the pool of human consciousness reverberates outward inoculating the larger collective. By healing ourselves we heal the collective. The reverse is also true. When others respond to our unconscious shadow type with a healthy response, they can heal us from our typology shadow. Their drop of wisdom in the collective heals each of us.
When we create healthier we-spaces, these healthier spaces provide an environment for healthier individual growth. As a result, we have a positive feedback loop that elevates all consciousness as we elevate our own. As all elevate their consciousness, it provides an environment for each to elevate as well. The continuous cycle of the evolution of consciousness is magnetized and accentuated.

Eventually we begin to integrate the types together so that they begin to form a cohesive whole. As you can see, we move from identification of types to intimacy between types to integration of types. Once we integrate types, types tend to fall away for us. The configuration of the typology style of consciousness does not allow for later level psycho-spiritual states and stages. The next stages require post-typological awareness. However, as we move into late 5th and 6th person-perspectives, we can reformulate typologies again at will, as necessary, depending upon the situation in which we find ourselves. Just like at 3pp we can move beyond rules but still come back and formulate and follow rules as necessary when appropriate, so too at 5pp we can do this with our typologies.

**Summary**

In summary, typologies have a developmental trajectory. They begin as a fixed, rigid, and deterministic type for life. The next typology style is that while people have a type, these types can change sequentially over time. The third style of typologies orients us to experience multiple typologies simultaneously. This allows the types within to begin to interact with each other eventually formulating egalitarian systems. The fourth typological orientation is that varies types within any given typology have a developmental trajectory. This allows for both the egalitarian and hierarchical nature of typologies to exist simultaneously within us. As a result, the internal adaptive system becomes more complex and multi-functional. This sets us up for the fifth typological style where both hierarchical and egalitarian Typologies themselves integrate into a whole interpenetrative well-functioning system. Here is an outline of the sequence of the development of typologies for your review:

1. Fixed typologies:
2. Sequentially changing typologies
3. Simultaneously Inclusive typologies
4. Developmentally informed typologies
5. Integrated typologies

Not only do typologies have a developmental sequence, our awareness as we move through typological awareness also has a developmental sequence. We move from believing we are a type for life to experiencing our type change sequentially.

As our awareness capacity grows, we can begin to hold multiple types within us simultaneously. This allows us to have types interacting with each other within us. This also allows us to create egalitarian systems where multiple types within us can interact in increasingly cooperative ways. How we create these egalitarian systems has a mirror effect upon how we interact with the external world and how we perceive the external world as it comes in through our senses.
As our awareness grows more, we are able to hold both egalitarian and hierarchical types within us simultaneously. This allows for even more complex and functional multi-type interactions within us. For example, later level types can hold nurturing space for earlier level types while earlier level types can then explore in safety and freedom new passions and interests of which we previously were unaware.

As our consciousness expands to look in at this system, we can create ever more functional and alive internal complex adaptive systems that operate in increasing cooperative styles. These internal egalitarian/hierarchical systems become even more adept with the external egalitarian/hierarchical systems creating ever more smoothly operating internal/external complex adaptive and interpenetrative systems.

Here is the outline of the growth of our consciousness through typological awareness:

1. Fixed types: (I am a type: I have always been that type and I always will be.)
2. Sequentially changing types: (I have a type and this type may change with time.)
3. Inclusive types: (I have many types inside of me.)
   a. Sequentially: (I can see the types one at a time)
   b. Simultaneously: (I can see the types simultaneously)
4. Interactive types: (The types have their own relationships with each other)
   a. This occurs with two pairs of dynamics:
      i. The internal collective: I see the typologies interpersonally relating to each other within me
      ii. The internal-external collective:
         A. Seeing the internal typological collective in me, I can see it in others and how the internal and external typological relationships play out in social interaction.
   b. The egalitarian and hierarchical nature of typologies:
      i. Egalitarian: Each type is equal to any other type
      ii. Hierarchical: Some types are more developed than other types:
5. Type systems: (The way I manage the interactions of types, the way they relate to each other, creates better or worse outcomes).
   a. Internally
   b. interpersonally
6. Integrative types: (Wholes) With better system design, the types integrate into larger wholes of consciousness until they become one whole.
7. Post-typological awareness: the types have dissolved allowing for post-typological consciousnesses to arise. But we retain the capacity to re-create and engage in typological interactions when helpful and can dissolve them again when they are no longer helpful.

If we do this skillfully, we may move into post-typological awareness in two ways. We move to such an intimate DEPTH of understanding types that types fall away into the more nuanced, maneuverable and adaptive ego-states. Alternatively, or in addition, we move to a later level HEIGHT where all the types within interpenetrate into a single whole system. At this point types fall away and we enter post-typological awareness.
Understanding typologies within the whole of development allows us to understand the purpose and trajectory of typing. This helps prevent us from getting stuck in any given type or typology style. As a result, our personal and collective consciousness is allowed to evolve free of the obstacles and pitfalls prevalent in the maze of typologies. Instead, we follow a clear path through a beautiful forest that leads to a mountain peak with clear views of the timeless boundless landscape. But remember, it’s not about the end. Enjoy the whole journey. It is all beautiful!
4. The Illusion of Distinct Lines

Introduction

Lines of development have been promoted by multiple authors. The attraction to lines of development is at first quite understandable and appealing. They appear at first glance to explain how some people appear to have high cognitive development while others appear to have high emotional development and still others have high physical skills and others great musical capacities. Below is a typical list of various proposed lines of development:

Cognitive, Emotional/Affective, Kinesthetic, Ethical, Aesthetic, Spiritual, Musical, Spatial,
Logical-mathematical, Karmic, ...

However, lines of development appear to me to break down quite rapidly upon closer inspection. I claim no scientific background in this field. My only offering on this subject is the observations of the working of my own mind and the minds that I have intimately worked with over the last 30 years as a therapist, coach, and workshop leader. Drawing on these experiences I have developed some perspective on “lines” and alternative orientations that I think are more functional and accurate ways to view the human mind.

At this point in time, I see the concept of separate lines of development has several problems. First, any given line will sub-divide into an infinite array of sublines. Second, these sub-lines will invariably either blur with each other or outright contradict each other. Third, lines make more sense from the bottom up than from the top down. Fourth, the conceptual structure of lines does not fit with brain structure research, nor with the concepts of the Dali Lama. And fifth, just the concept of lines pulls the mind into a line or multi-line thinking modality where a more complex interconnected neural web orientation is more functional and more in line with the research and more in line with how I experience my own mind and the minds of others I work with. This paper is not enough to make a thorough argument on each point nor is it intended to do so. It is only intended to provoke thinking in different ways.

Let us begin with how lines break down. To do this let us start with the “musical” line of development.

Example: The Music line

As soon as we claim a musical line of development the next question is which kind of line? While we all can clearly see some people are very musically adept and others are not, what exactly does it mean to have a musical line of development. Some people can read sheet music on sight and sound amazing. But get them to play by ear and they are incompetent. Others can play by ear, but cannot read a single note. Both require movement through various skills development to be highly competent, but both are clearly utilizing very different parts of the brain. I know people who are tone deaf but can read sheet music and play wonderfully. Others can play by ear but cannot read sheet music. So now we have a technical sheet music line of development and a playing music by ear line of development.
Next, let us consider jazz vs. classical music. Jazz requires quite a different orientation to music than does Classical. So now we have a Jazz line and a Classical line. But wait, these can both be done with sheet music or by ear so now we have 4 lines of musical development. Sheet reading jazz (like precision jazz) sheet reading classical, playing by ear jazz (such as jamming) and playing by ear classical. This of course only begs the question when we move into blues, folk, bluegrass etc. After all, there are musicians that can play bluegrass so fast a classical person could envy and yet not have any capacity to create classical music and vis versa. So now we have technical lines, playing by ear lines and style lines. All of these different sub-lines can be clearly defined. In fact, they can be more clearly defined than the sub-line of music. Perhaps, since this is the case, we need to move from separate lines of development to micro-lines of development that are more clearly defined and therefore more clearly measurable for study.

Let us look at one more complexity. Consider those who write music vs. those who listen to music vs. those who perform music. There are great song-writers who can’t perform (Bob Dylan for example...haha) there are great performers who can’t write music (Tayler Swift...haha) and there are great people who can listen and enjoy all the technical nuances of music but can neither write nor perform. All of these people can be considered advanced along the “music” line. But while each is advanced in their own way, they are completely incompetent in the way the other kind of musical person is.

Writers are using a creative aspect of the brain while performers are utilizing a repetitive memorized precision part of the brain while the listener is utilizing an analytical technical part of the brain. These are clearly different aspects of the brain in action. So, they, by definition are different lines.

Next let us compare a sheet reading bluegrass banjo player, a tone-deaf technical composer and a deaf performer. All of these people are utilizing technical parts of the brain to accomplish their musical task. None are using the musical ear. And yet one is a performer, one is a composer and one is a reader of music. So now we have all these nice crisp lines blending into something altogether different. Instead of having more sublines to make things more crisp and clear the lines are now getting blurred. For example, we have these nice crisp lines of jazz, classical, blues, technical, organic playing by ear, Performer, writer, listener, analytic. But as soon as we define one of these lines for study it will cross over the other lines.

A similar issue occurred in Anthropological studies of race. The common knowledge was that race existed so let us study it. But as soon as they went to study race, they could not find it. As soon as they isolated for skin color, eye color did not hold consistent, nor did hair color, nor height, nor any other measurable trait. The same thing occurred when they isolated for hair color, blood type etc. The conclusion was that Race is a false concept. If you lined everyone up in the world in a line there would be no place to draw a line to say one race starts and the other ended. Even more, by lining up by one trait of race (skin color) all the others traits went askew.

The same is with line. As soon as you define a line in one way, you will contradict other lines that make just as much sense. In the long run, the only reasonable conclusion to make is that lines, like race, appear true on the surface, but upon deeper inspection, break down into nonsense. (This is not to undermine race relation issue, as these are serious issues. Just because
something is an outdated concept does not mean it does not continue to create devastating consequences).

To be more specific, it appears that:

1. All lines break down into sublines
2. Sublines break down into an infinite array of smaller sublines
3. Once you really look at the sublines, they will invariably contradict each other.
   a. That is to say that to follow any given sub-line alone you might think you are doing fine
   b. But invariably there is another sub-line that will contradict that subline.
   c. Therefore, BY DESIGN the concept of separate lines puts us in a contradictory state of understanding the mind. To prove one line will inevitably deny another line which on its own will prove itself and deny the former.

We can do the same thing with cognitive line, the affect line, the kinesthetic line, the moral line etc. Regardless of the line you use, all lines break down quickly upon deeper inspection to either infinite sublines and into blurring between lines and even out right contradictions.

One of the classic arguments for separate lines goes something like this: Nazi doctors were cognitively developed but not morally developed. This appears very clear at first blush. But what happens when we look a little closer. First, for a Nazi doctor to be functional at all they have to adhere to basic morals of codes of conduct of the scientist…and they did this with excellence. Their moral line was EXACTLY the same as their cognitive line. It was compartmentalized, yes. But that does not mean is was not there and was not developed.

Secondly, the Nazi doctors adhered to the sub-culture moral orientation at that time in history. They treated other Nazi doctors with respect, followed social moral norms and engaged in the societies moral character. Was it compartmentalized? Yes, was that tragic? Absolutely! But that does not mean the morals were not in line with their cognition. The horrifying fact is, we all compartmentalize a little bit. We all adhere to wonderful morals in one or even most settings but then do not do so well in other settings. This is compartmentalization. Does that mean all of us have no moral development? Of course not! Is it tragic that we can’t generalize our greatest moral character across all situations and apply it to all conditions, yes of course! Does that make us all Nazis? No, but in humbleness we can realize we do a similar thing, albeit in perhaps a much smaller way.

From what I can observe is minds work as whole units. Complex cross-referencing neural networks. Clusters form around orienting perspectives, not around specific lines. If we want to study clusters of consciousness then we would do better to understand how these clusters are actually forming.

The clusters are not around cognitive vs moral. The clusters are around perspective orientations. One perspective orientation creates a neural cluster network that contains a generally homeostatic alliance of cognition, emotion, impulse, morality, art, etc. configuration while another orienting perspective within the same person contains a different configuration made up
of the same whole elements of the human being but with its own homeostatic alliance configuration.

Next, instead of breaking down every other “line” let us go to a macro view of lines. First, let us address the idea that cognition, emotion and kinesthetic are separate or separable. In Daniel Goldstein's book, Destructive Emotions the latest neurobiology researcher and the Dalai Lama, agree that Cognition and Emotion are co-arising phenomena. In further research we realize that Impulse (kinesthetic) also co-arises. These are not separate human capacities but an integrated web of human experience. You can’t take one away without the other two. There is no human who can have emotion without cognition and without impulse, there is not cognition without emotion and without impulse.

We may be able to have impulse without emotion and cognition… as in reflexes and impulses such as a chicken that flaps around for a bit after its head is cut off. But these are pretty limited. These reflexes come from the brain stem and for all practical purposes would not be considered conscious action (after all the head IS cut off!). Cognition, emotions and impulse including all other kinesthetic movement are all intricately interrelated. You cannot have cognitive development without emotional development and impulse development.

Give me the best mathematician in the world and I will show you a person who is equally passionate about math as they are intelligent. I will also show you a person who has equal capacity to manage impulse….in that as they are intellectual and emotionally wise.

Show me a professional athlete and I will show you someone who has passion and emotional command in their profession and impeccable impulse control in it as well. But get them off the sport and their emotions may be wavery, their impulse control suspect and their cognition limited. In fact, even on the court they may waver from professionally controlled impeccably kinesthetic wonders. Get them angry and suddenly their kinesthetic command falls, their intellectual precision falters and their emotions run amok. This is so well recognized that professional athletes are trained in getting into their competitors head to create this decompensation.

Lines really begin to falter here. If it was just lines, this dynamic would make no sense. After all, the capacities are there just a moment before. Why are they not there now?

How do we make sense of these variabilities if lines don’t work? The answer is a conglomerate of interacting parameters within a multi-self orienting perspectives.

**Interacting Parameters**

The first set of parameters (which come right from the STAGES model) are:

1. Content: Content is the what of what we are doing or assessing. There are 4 sub parameters to the content:
   a. Concrete content
   b. Subtle content
c. Metaware content
d. Unified content

2. Process: Process is the How or the learning style of how it is being done. There are 4 sub-parameters to the learning process style:
   a. Receptive
   b. Agentive
   c. Reciprocal
   d. Interpenetrative

The second set of parameters is:

3. Interest: interest is the desire one has toward the content. Interest is moderated by 3 sub-parameters
   a. Environmental exposure
      i. Without some environmental exposure there will be no development.
   b. Sociocultural memes
      i. The socio-cultural memes that the individual is raised in provide further funneling of interests. Again, one cannot have development of something they have no exposure to
   c. Personal preferences: From this environment the individual makes personal preferences which may be acted upon. These personal preferences are limited only by the type of content they are able to see (first parameter set).

4. Talent: Talent is the ability to act on the interest. It is also moderated by 3 sub parameters:
   a. Genetic configuration: Ones genetics have a great deal to do with one’s developmental capacity in any given realm.
   b. Industriousness: Given a set of genetic capacities the individual may develop them or not. This is called industriousness
   c. Confidence: whether developed or not there is a spectrum of confidence to use this capacity. Some people are genetically primed and have been industrious enough to develop great talent but lacking confidence never act on it.

5. Opportunity: Opportunity is the situation in which one can apply and develop the talent: it is moderated by 3 sub parameters
   a. Exposure: one must have exposure to not only the environmental awareness of the content but also the exposure to be able to act upon it. In addition, exposure to opportunities like schooling or jobs.
   b. Training: Training can help optimize the talent
   c. Experience: Having opportunity to have specific or variable experiences in the content provides significant opportunity for growth.

The third “set” of parameters is:

6. Ego-states: Ego states are the multiple selves within us.
   a. Each ego-state operates upon its own configuration of the above parameters…its own orienting perspectives
   b. If ego-states are in conflict they will sabotage each other’s success
   c. If ego-states are in alliance they will support each other’s success.
d. Ego states explain how a person can be highly adept in cognitive, emotional and impulse awareness in one content and a completely incompetent in any or all of these in another

e. It also explains why in testing people may score high in one way, but with a different kind of testing or environment may not do so well. How one might score high in awareness but only in a given interest. Thus, not score high over all in one test while scoring quite high in another. (see Thomas Jordan)

When these 3 sets of parameters interact, we get an infinite array of organically arising “lines” of development. This better explains human variability in developmental capacities.

**Ego-states and Development**

Let us explore this a little more by starting with the third parameter of ego-states. Ego states are the sub-personalities within us. Each ego state is a co-arising interactive conglomerate of cognition, emotion and impulse (Cognition, Affect, Kinesthetic). These co-arising and intimately interactive aspects of human consciousness form a single ego. The ego, when under pressure to solve certain problems in certain ways divide creating split ego-states or separate sub-personalities or as other say separate inner selves. This is not just due to trauma; this is a part of normal human development. We can’t get into second person perspective without having one self that monitors 1st person perspective and a second self that monitors second person perspective. If we only had the second person perspective self, we would not be able to identify our own needs. If we only had the first-person perspective self, we would not be able to understand the other’s needs. Thus, the 1pp ego splits, retaining part in first person perspective and allowing the second to “grow up” to understand the other persons perspective. This typically happens around age 5.

As we grow more, we create more developmentally oriented ego-states. 3pp allows us to observe 1st pp, 2nd pp, and also 3rd pp. third person perspective allows us to take a non-biased observer view of the other two selves. As you can guess, this is very handy as it allows us to take an objective view on ourselves. 1pp orients to egoic wants. 2pp orients to beliefs, 3erpp orients increasingly to observable replicable facts with the understanding that our wants and out beliefs can make us astoundingly biased in what we observe to experience as “facts”. 4th pp allows us to do this while taking an understanding of constructs that cause biases in our observations and even the way we set up experiments. At this point we have 4 developmentally oriented ego states.

Ego states can be created via trauma, even everyday ones. We might get hurt playing hard ball with the big kids and now when we are around baseballs, or around kids or adults with certain attitudes it brings us back to that day we were hurt. When that ego-state comes out it takes over the dominant ego orientation and operates at its own developmental level. I call this a shadow crash.

We all have had the experience of behaving perfectly adult-like then a spouse or co-worker or neighbor says or does something and suddenly we are behaving like a child. This is the experience of a shadow crash. It is when one earlier developmental level ego state takes over the dominant ego perspective.
The opposite occurs as well. People who seem to be ordinary non-risk-taking people have been known to suddenly charge into a burning building to save a child that they do not even know. Reports from many of these people indicate their surprise at how selfless and focused and efficient their actions were. Far superior to their normal everyday lives. We all have ego states that have learned skills here and there but do not have the opportunity to act on them until a certain event occurs, then suddenly out of the blue comes this new ego state ready for action.

When we understand ego-states we realize we can have later level development with one ego state and earlier developmental level with another ego state. Each ego-state has its own separate set of parameters listed above. They each have their own interests, talents and opportunities. How can they be different if they are in the same body? Because when one ego state is dominant it gets to act out on its interests, talent and opportunities. The others do not. Just like the eldest child gets a different exposure to opportunities that the youngest, different ego states within get different exposures to the world. They may observe but not be in charge of the impulse action.

When the next ego state comes out it comes out in a different orientation. Perhaps there is a fear that becomes so intense the traumatized ego-state arises. Its priming is already fear and so it sees the danger in the world. It acts to create survival and succeeds and that re-enforces to that ego-state that hypervigilance is the way to live.

A second ego state does not have to attend to danger because this first one is so hypervigilant, so the second ones sits back and observes without having the power to control the impulses at this point, thus it learns patience and when it does have control of the impulses (when the fear subsides) it may do so with patience, persistence and focus.

A third ego state would not have those opportunities so when it comes out it might be ready to play and is highly spontaneous and lively. Each ego state is just like a mini self, with its own cognitions, affect and impulse management. Each ego state then can grow up or stay at a certain developmental level.

When we add in the other parameters, we can see how one ego state may be interested different content (first parameter set). One may be interested in music, a second in spirituality a third in ethics, a fourth in athletics, a fifth in psychology. Each of the ego states have their own unique co-current cognition affect and impulse that goes with its particular talents, interests, and opportunities. Each of these may be in a different sequence of learning style. Each of these may also be seen in a concrete manner, a Subtle manner, a Metaware manner or a Unitive manner.

When all these parameters are interacting in a population of 7 billion, we can see how the unique variations can arise. When these are mitigated by sociocultural memes all the way from global national cultures to sub cultures of ethnic and family we can see a funneling of these potential interests into categories that some look at and then call lines. But as soon as you get out of the constructed nature of the funnel and see from a construct aware place you can see the funnels and realize they are not really lines of development (from the bottom up) they are simply the infinite potential from the top down being constrained into certain interests.
Summary

In summary, in my personal view, the concept of separate lines fails to understand human consciousness in multiple ways. The first is that lines can be infinitely divided to the point of being irrelevant, the second is line boundaries can get blurred as soon as they are divided. The third is sub-lines will invariably contradict each other. As soon as one is “proven” is will inevitably contradict another type of line. Fourth, the seduction of lines is similar to the seduction to believe in race. It makes sense until you actually look deeper. Fifth, is looking at humans from the bottom up within a construct to create a construct from the bottom up vs. stepping outside of the construct to see the funneling occurring which helps you realize the lines are an illusion. They are an illusion as soon as you go into detail (depth) and they are an illusion as soon as you go into height (construct aware).

Finally, this does not mean lines are not useful. I think they may be fine tools for a while to help you get oriented to different capacities. They can be used to break consciousness up into bite size pieces for study. However, I find lines inadequate in explaining the human mind. More importantly, just thinking of the human mind in terms of lines, in my experience, constricts the mind using them. It tends to narrow the mind into multi linear format instead of a multi interacting neural network format. When we understand our development and our consciousness through interacting parameters, we get more accuracy, understanding of complexity and deeper understanding of ourselves, others and the dynamics of human consciousness.
5. STAGES and Parenting

Introduction

As we reach out to touch our future, a future of greater developmental capacities, wiser social structures, and as-yet unattained spiritual states and deeper understandings of the human mind, humanity’s reach into its ultimate destiny relies upon today’s parenting. If we are to build a wiser culture, a deeper soul, a brighter mind and greater spiritual capacity, we need to invest in the intergenerational passage of wisdom. This wisdom cannot be taught in books: it can only be discovered through experience. It is the spiritual task of parenting to wallow in the mud with the unwieldy untamed human psyche of the wild child and provide the environment for this delightful monster of the marsh to rise to pro-social living, post-conventional awareness and eventually, spiritual wisdom.

This paper presents a model for how we can go about this parenting task with empowered wisdom and grace.

To accomplish this heroic task, it is helpful for parents to be able see three aspects of parenting:

1. The child’s developmental stage.
2. The parent’s developmental stage of parenting.
3. The parenting tools used in parenting.

These three aspects of parenting create a very sophisticated complex dynamic that has significant impact upon both parent and child. This article provides an overview of these 3 aspects and some of their dynamics, to help parents be effective as parents. We will discuss childhood development, parent development, and the parenting tools parents use. Each parenting tool must be adapted to the child’s developmental level. We will begin with Childhood development utilizing the STAGES model.

Overview of Child Development

This overview of child development focuses on the child’s key functional learning tasks at each developmental stage, and the basic parenting features that help them at each stage. In this I am interpreting and applying the STAGES model, developed by Terri O’Fallon (REFS), to both child and parenting development. See the first article of this series for an overview of the STAGES model, which labels its 12 developmental levels 1.0, 1.5, 2.0, 2.5 ... 6.5.

Stage 1.0. When children first enter this world, they are helpless. The parents’ task at this stage is to make this experience of helplessness safe and loving. The child’s core challenge is to be completely helpless in this world and be able to trust well enough to be able to feel the love coming in… well enough to establish bonding and attachment. The key parenting task at this stage is to provide a safe, loving and engaged environment for the child, an environment safe enough that the child can receive this world through their senses of sights sound, touch, taste, smell and movement without having to become fearful during any of these experiences. The
parent/child relationship must be sufficiently engaged and sustained through the senses that the child can bond to someone. Parents are developing the core love bond... loving so the attachment becomes pro-social. Parents provide an environment of loving kind gentle attentiveness.

**Stage 1.5.** At about 12 months (the precursors to this having started at about 6 months, and it being in full swing at 18 months), children are transitioning from helpless beings to active toddlers. Their core challenge and excitement are to discover their own power and agency in this world. The parenting challenge is to provide a safe place for children to discover and explore their personal power without causing harm to self, other or the environment. Children need an open place where they can run and explore safely and a comforting place to come running back to when the world gets too big for them. If parents are too restrictive, children lose that light of spontaneity and miss opportunities for learning. If parents are too lax, children cross boundaries that lead to harm to self, others, or destruction of the environment. Finding a good balance is the art of the wise parent.

**Stage 2.0.** At about 4 to 6 years children are transitioning from a first-person perspective (everything is about *me*) to a second-person perspective (the *we* matters). They mature in this perspective at about 12 to 16 years of age. The child’s challenge is to learn the basics of pro-social behavior (taking turns, fairness, reciprocity, etc.) The parenting challenge is to provide the social exposure for the child so the child can explore their social self. The balance parents must navigate is to provide social experiences with enough freedom that children can explore their own social skills, and enough boundaries so they don’t run amok. Children at the later part of this stage are particularly vulnerable to peer pressure, so managing the social environment is important. But over-controlling the exchanges within this environment limits children’s social growth. This balance needs systematic adjustment by parents as their children grow from 6 to about 16 years of age. Part of this balance is to trust that the child is robust enough to engage and learn from "the world," including extra-family social contexts, with only limited oversight from parents. Finding and adjusting the balance between these two is the art of the parent at this stage of the child’s development.

**Stage 2.5.** At about 13 to 18 children move into understanding and internalizing principles. These principles grow to become more important than spontaneous exchanges with peers. Peer pressure begins to recede behind the power and stability of principles. The parenting challenge is to provide continued exposure to a principled lifestyle which may include theology and/or philosophy. The art for the parent at this stage is to provide enough exposure and modeling of a principled lifestyle without becoming so dogmatic that children do not feel they have no freedom for self-development, and self-exploration of their own emerging principles. This process begins much earlier, when parents model the values and principles they want their child to adopt. However, it is at this age that children don’t just follow parental modeling: they integrate the modeling of parents and the rest of their social world into their own character.

**Stage 3.0.** At about 16 to 24 children begin to discover their more unique self. While they still hold to principles, they can see where rigid application of principles in all situations can cause harm. In doing this, children often reject their parents’ viewpoints and values as they seek a space free of those influences so they can discover their own unique self. The parenting challenge at this stage is to support their child to explore the nuances of their unique selves: alternative
thoughts, feelings, values and moral orientations are part of the child’s exploration at this point. They are making them their own, not just because someone told them this is way things are. This includes taking enough distance to allow the child to make some mistakes based on their emerging autonomous ideas, even though it can be quite uncomfortable to witness this. If parents notice their child is exploring their own values, morals and philosophies of life at this juncture, parents can enter into non-judgmental discussions with their child, while they explore their unique orientations on life. 3.0 marks the beginning of logical reasoning faculties. Offering gentle critical challenges or asking for justifications helps build these skills, as long as it is done with love, empathy, and non-dogmatically.

When adults see their child develop to new stages, they may also notice that these stages get longer as the child becomes older. The first stage is only about 18 months, the second 3 to 4 years, the third 6 to 8 years, and the fourth 8 to 10 years.

Stages of Parenting Developmental Skills

It is not only children who have developmental levels. Adults do too, both in terms of their overall psychological development and specifically in terms of the skills of parenting. Adults may remain in one stage of development for their whole adult life, or they may move only one stage over that time.

It is important for many reasons for parents to understand the core tasks and challenges of their own developmental level and how that impacts upon how they view parenting. Each stage has its own world view, its own tasks and its own blind spots. When parents understand their own developmental level, they can identify and enhance its gifts, give them to their children and minimize the consequences of their blind spots and biases.

Knowledge of these basic parenting developmental levels allows parents to see their leading-edge gifts and blind spots, while also helping them see where they will often "shadow crash" into earlier developmental levels under stress. Earlier developmental levels contain fewer options for parenting. As a result, if parents shadow crash under stress, parents may have fewer resources and less skill available in parenting. Watching what, when and how one gets triggered into a crash in their own developmental level and skills, is as important for parenting as learning all the tricks of the trade on how to parent. With this knowledge, parents can develop better parenting skills for the best of times and the worst. This includes knowing when to bring in additional resources, such as swapping with the less stressed parent, or asking trusted friends for support.

Below is a brief description of parenting styles.

**Stage 1.0 Helpless Parenting.** Being at this stage is the result of a stress crash for most parents. Stress crashes occur when people get over-stressed and operate from a much earlier level than normal. It happens when parents get way too burned out, tired, and want to quit and just have someone else take care of them. It can also happen, if parents suffer from a severe illness or severe addiction. Some parents get stuck here and live out their lives having their own child care for them, while the child raises themselves to adulthood. The parent’s gift is that child learns the power to nurture and self-manage. The deficit is that the child become over stressed playing the
adult role and never learns to have the freedom of being a care-free child. These children often create either a rebellious, disconnected or co-dependent oriented self-identity.

**Stage 1.5 Parent-centered Parenting.** Being at this stage is also usually the result of a stress crash for parents. In parent-centered parenting, the parent gets from the child what the parent wants. The parent has little concern for the child and the key issue is that the child does what the parent wants for the parent’s own benefit. In contrast to Stage 1.0 parents, Stage 1.5 parents are demanding of the child rather than just passively in need. The parent’s gift in this stage is modeling of personal power. The parent’s blind spot is blatant unawareness of their child’s needs in the moment. This often leads to either a rebellious or a slave oriented (obedience-based) self-identity for the child.

**Stage 2.0 Norm-centered Parenting.** Parents in this stage get focused on their child fitting in. The child needs to behave and look in a way that is required for fitting in, i.e. to be accepted or admired within their cultural context. There are two aspects to this. These parents may want their child to fit in with other children, or they themselves may want to fit in with their own group based upon how their child behaves (i.e., these parents control their child to make the parents look good to their community, so the parents can fit in). The parents’ gift from norm-centered parenting is social awareness. The parents’ blind spot is the judgementalism that derives from an overly social norm-focused worldview. Their children become either hyper-confirmative, which leads to an external locus of control and as a result, severe susceptibility to peer pressure; or the children develop a more oppositional orientation, in which they reject the social acceptance they desperately need and behave in ways that embarrass their parents.

**Stage 2.5 Principled Parenting.** Parents in this stage lead a principled life and provide principles for their child to live by. The moral life becomes paramount. The parents’ gift is to provide basic morals and principles to live by that can guide their child to a better life. The parents’ blind spot is that they can become rejecting of their child if they do not live up to the moral environment the parents expect them to live by. In other words, when morals become more important than accepting and loving their child, parents cause damage - even while they think they are doing something for their child’s own good. Their child may develop principles, but those principles are often applied without concern for the genuine wellbeing of others. To clarify: the child, just like their parents, uses moral principles to humiliate and harm people rather than live out their morals in a way that truly helps people. However, the child may also live a life that actively rejects their parents’ principles and even mock them. If parents can lead with their values but hold them lightly, so they hold their love for their child paramount, then they can soften the rigidity of moralizing that can come at this stage of parenting development. This will help their child to develop principles to live by without having to beat others over the head with them or be led them to rebel to get some space.

**Stage 3.0 Professional Parenting.** In the professional parenting stage parents get to be very open to learning new ways to make themselves better parents. Professional parents want to be the best parents ever and are willing to study diligently to become that. As a result, they often do become very good parents. They learn a great deal about what works and what doesn’t, and how to parent better from various professionals. They are open to getting help when needed to make things better. Professional-oriented parents are parents 110% and give themselves fully to their
parenting. The concern at this stage is parents may become overly devoted to one model of parenting at a time, unable to coordinate the perspectives of different theories. The drive to perfection can also be transmitted to the child via the parents’ expectations and direct modeling, so their child can get the idea that they are not ok unless they are perfect. If parents can rejoice in their perfectionism, yet hold it lightly so they lead from love, then their child will be free of that haunting feeling that they are never perfect enough and be able to benefit from their parents’ detailed perfection.

**Stage 3.5 Achievement Parenting.** In this parenting stage parents want their child to achieve at everything they do. They are also focused on achieving "success" themselves as parents. Success in their every endeavor is paramount. Here success differs from the perfectionism of the 3.0 parent in that 3.5 parents are more interested in flexibly trying out different parenting models and techniques, as long as it works in a "better" outcome. The gift offered by this parenting style is the development of success patterns and achievement values that will serve the child for life. The blind spot is that the parents can become so obsessed with achievement and success that they don't see they are driving their child into high levels of stress. These parents also inadvertently send the message that their child has to achieve to be ok, or loved, or acceptable. Instilling the importance of group norms is also a weak point for this parenting style. The result is that the child can develop either a highly individualistic competitive personality that misses out on the joys of bonding in egalitarian friendship, or a rebellious nature which gives up on achieving and becomes lazy or self-sabotaging.

**Stage 4.0 Intimate Parenting / Egalitarian Parenting.** In the intimate/egalitarian parenting style, parents focus on developing an intimate relationship with their child. The gift of the intimate parent is that they are able to establish very close relationships with their child that supports and serves the child for a lifetime. The child learns to be their authentic self and feels loved unconditionally. The blind spot is that these parents can be so focused on allowing the pure spirit of their child to emerge in this intimate environment that they don't set important limits. As a result, these parents often inadvertently create an indulged child pattern that actually causes more harm to the child than if hard limits had been set. Indulged children have little skill for developing truly reciprocal relationships and end up being rejected by peers or becoming controlling of them, so they never enjoy the beauty of the reciprocal relationship the parent is so deeply trying to inculcate in them.

**Stage 4.5 Adaptive Parenting.** In the adaptive parent style, parents can generally see the benefits and consequences of all the previous styles and are in the best situation for being able to, flexibly and in the moment, identify the parenting styles that are best for the child/parent/community system now and into the future. The problem with this type of parenting is that it’s more sophisticated and therefore takes longer to learn. It also requires a perspective that most parents have yet to develop, as it generally occurs later in a person’s lifetime. (This can lead to an appreciation of the benefits of grandparents and elder-mentors for both parents and children.)

If parents notice their parenting style and are aware of the gift they are providing because of it, and are careful to soften the potential problems it can create, they can use that to help themselves and their child to create the best parent/child relationship possible.
It is likely that parents will be able to see multiple parenting styles in their own parenting. Parents often use various styles of parenting as they wave in and out of various developmental levels.

This overview of the developmental understandings inherent in the various parenting stages will serve parents as they investigate parenting techniques. All the parenting techniques used by parents exist within the perspective of their own parenting developmental stage, and in turn, are received by their child in their own specific developmental stage. Consequently, how parents use parenting techniques does matter.

**Parenting Tools – 10 Tools for Optimal Parenting**

Now, we will turn our attention to the tools and techniques of parenting. In this, parents can consider their primary style of parenting, notice how they resist certain parenting tools and over-rely on others. These tendencies are partly the result of their developmental level.

1. **Environment management.** Everything occurs within the environment we inhabit. Some environments are a set up for chronic conflict and others for smooth operation that allows beautiful relationships to unfold. Noticing and attending to the environment, physically, emotionally, intellectually and socially, will make a huge impact on the overall tone of the parent/child dynamic.

2. **Relationship.** Everything in parenting comes down to relationships. The nature of how parents craft that relationship with their child will determine the joys and sorrows to come. Relationship-based parenting is not myopically focused on just the child. True relationship-based parenting helps parents to consciously craft the parent/child relationship in a way that benefits the whole family. Leadership and co-discovery can co-arise in the parenting dynamic. Co-discovery is about exploring with the child how the world works; it is an egalitarian approach where parent and child bond over a mutual passion. Leadership is about taking charge of a situation from a wise, strong and loving perspective; it involves skillful use of any or all of the tools listed here. Leadership and co-discovery are two poles of the bonding experience between parent and child. Healthy attachment requires both.

3. **Modeling.** Modeling occurs when parents behave how they want their child to behave. Parents do this by using the same visual cues, verbal expressions, behavioral actions and attitudes they would like their child to have. Children naturally learn by modeling, so much so that they will tend to learn more by what their parents do than by what their parents say. Consequently, one of the most powerful methods of parenting is for parents to become the person they want their child to be like. As parents becoming healthier, that feeds back into the quality of their relationship with their child. The quality of that relationship provides the basis for how their child learns to interact with others for the rest of the child’s life.

4. **Noticing.** What we notice tends to grow. If parents keep noticing misbehavior, they will tend to believe that their child is a misbehaving child… and children absorb what their parents believe. Children tend to live up to what their parents believe, so if parents notice misbehavior, their child will tend to give them misbehavior. On the other hand, if parents notice kindness,
helpfulness, and other skills, then that is what the parents will see, and they will inculcate these traits into their child. Noticing is not denial, nor is it seeing the world through rose-colored glasses, and it is definitely not seeing their child as better than everyone else. It is seeing into the positive traits, skills and capacities in their child even in the midst of problems. By doing this, parents teach their child that their positive traits do not disappear in the face of challenges, and that in fact, they can be drawn upon to overcome hardship.

5. **Wondering.** Wondering is a gentle yet powerful tool that helps parents direct their children’s learning in key areas that may be helpful or need attention. What parents wonder about out loud attunes their child to that same kind of wondering. Wondering helps parents and their children to discover and co-discover together. Modeling curiosity and openness helps set the stage for learning and education.

6. **Education.** Educating is a gentle form of parenting that parents use to guide their children in directions and lessons they want them to learn. This is different from forced teaching and lecturing. Forced lessons and lecturing are not education. Education involves parents clearly understanding the lesson they want their child to learn and providing the information in a manner so that their child is likely to absorb or receive it. Education is filled with empathy and a generally cooperative engagement in the learning process.

7. **Asking.** Sometimes parents just need to make a direct request. When parents ask, they should do that with the attitude that they are asking for a favor. Children do not have to do what they say… as every parent who has taken their two-year-old into a grocery store has well observed. Commanding and asking are two different things. When we ask first in a respectful manner, we model respectful interchanges and children are more likely to agree and to model that back to us.

8. **Negotiating.** Negotiating is a great tool for teaching children to be able to speak up for themselves. Negotiation allows children to learn how to speak up for themselves while respecting the other. If parents succumb to negotiating with their child over every issue, it leads the child to using it as a manipulative tool; but if parents use it at the right time and place, it will teach their child interaction skills that will be useful throughout their lives.

9. **Choices.** Offering choices to children is another powerful parenting tool. It helps narrow the field for children, effectively reducing anxiety and providing direction for outcomes that are more desirable for all. By offering two positive choices (or more depending upon the situation), parents can help their child move in one of two directions, both of which are acceptable to the parent and situation. A third choice, often unstated, always exists and that is that the child might choose to not choose one of the parent-provided choices. Sometimes children want the parent to choose, sometimes they refuse to choose, and sometimes they choose something that is not an option. The latter choice may lead parents into the parent/child dynamic of behavioral management (see below).

10. **Behavioral Management.** Behavioral management comprises three sub-phases: Discipline, Consequences and Punishment. It is used when previous tools fail.
**Discipline:** Parents use discipline when they actively apply a behavioral management program to their child. This one has five steps:

1. Parents make a clear concise statement of expectation
2. Parents make a clear concise statement of consequence
3. Parents make a clear concise statement of the time stamp, i.e. when the action must be completed by to prevent discipline.
4. Parents follow through on the agreed upon response... what people often call a consequence.
5. Parents debrief with their child by going over the lesson; or revising it to increase its success and either terminate, change or continue the plan.

**Consequences:** Consequences can be either natural or logical.

- **Natural consequences:** Natural consequences are those the child will suffer from because of their own actions unless their parents rescue them. With natural consequences parents don't have to actively implement a behavior management tool... they just allow the natural course of events to provide behavioral feedback to their child. The parents’ job is to stop themselves from rescuing or being co-dependent. Sometimes it is best to say and do nothing. If the same consequence for the child occurs repeatedly, we can sometime enhance natural consequences with noticing and wondering. We notice or wonder with the child the sequence of events and link the child’s behavior to the natural consequence.

- **Logical consequence:** Logical consequences are based on logic and relate to the topic at hand. For example: if a child uses the car and stays out after curfew, the car was not used in the expected way, so removing access to the car is a logical consequence. On the other hand, though, if a child does not do the dishes because they are playing on a gaming device, removing the car is not logical – the logical consequence in this case is to remove the gaming device. Using logical consequences instead of random punishments helps the child link the problem behavior to the consequence in an understandable way. When consequences are not linked logically children often just feel the parent is just using the excuse to get them to do extra labor. This can set up a dynamic of the child “punishing” the parent when the parent does not give them what they want.

- **Punishment:** Punishment is the parents’ use of tools that harm their child in an effort to get a desired response. This often leads to short term success with long term consequences. For example: when parents yell at or spank a child for not doing what the parent asks, the child’s immediate response may be to do what the parent says. However, the long-term trend will usually be that the child takes less notice of the parent and that the parents will more frequently and/or intensively employ yelling or spanking. The result is a child who cowers in fear or becomes indifferent to punishment over time.

There are a further two follow-ups parents can use in behavioral management.
**Debrief:** The first follow up is for parents discuss the incident and the disciplinary / consequences / punishment to ensure the lessons are learned as intended and to explore alternatives to having to go into these experiences in the future. This helps build the skills awareness, self-reflection, rational reasoning, and self-directed learning.

**Re-engage:** The second follow-up is for parents to re-engage the child into a positive parenting relationship, i.e. return to relationship-based parenting, modeling, and healthy co-discovery. This keeps the relationship functioning at optimal levels. Ideally, parents never really leave relationship-based parenting, but when they go into discipline mode, sometimes a child does not realize this. As a result, it is a good idea for parents to make a marker, some shift in attitude or behavior, that indicates to the child that they are ultimately in love with their child and the child is invited into that space with them.

**Sequences:** It is important that parents use these parenting tools in the given order. They have been specifically sequenced so that parents can create the most beautiful, healthy relationship with their child possible. If parents use these tools in reverse order as many parents mistakenly do, then they start out with the most constricted parent-child relationship and they may never get to the most beautiful parent-child relationship available to them.

**Developmental interactions:** The developmental level of parents has a unique and powerful impact upon their child’s developmental level. For example: if parents are coming from a Stage 3.5 achievement-oriented parenting perspective, they will tend to promote their child’s individual achievement. This can be good if the child is in Stage 1.5 and attempting to discover their personal power. However, when the child moves to Stage 2.0, the child needs to background their individual achievement in order to bring forward the beauty and intimacy of the collective. The very same parenting perspective can be beneficial for a child at one developmental level and actually harmful at another. Every parenting style has a different impact upon each of the child’s developmental levels.

If parents notice which developmental stage perspective their child is doing the understanding, that can help them to craft a tool skillfully for communicating what is important to their child at that time. For example, if a child is at 1.5, they are in first person perspective. Telling them what they should do will have less effect for them than if the parent identifies alternative wants the individual child might like or point out that if the child keeps doing what they are doing it will not lead to what they want but to some other experience.

**Summary**

Every child operates within a developmental level that shapes what the child can see, what the child can't see and what the child needs. Every parent operates within a developmental level that shapes what the parent can see, what the parent can't see and what the parent needs. How each tool in the list of parenting tools is used by a parent will be shaped by the parent’s developmental perspective at that time. If the parent is in a stress crash to an earlier developmental level, even the most beautiful parenting tool might come across negatively to the child.
In addition, every time a child receives a parenting intervention, the child receives it within their own particular perspective. When parents understand their own developmental level, their child's developmental level and use the sequence of parenting tools in the order listed above, they can craft the most beautiful, healthy parent/child relationship possible.

This paper has given a relatively short summary of material that I teach in my parenting workshops and which will appear in my parenting book due to be available in 2020.
6. The Love Matrix

Introduction

You are a symphony of love. An amazing amalgamation of music and instruments all working together to transmit love vitality and magically through the air to and between those receiving your love song. Below we will be using the STAGES model's concepts of receptive, active, reciprocal, and interpenetrative to explore this wondrous journey.

Receiving Love. The first step in this journey is to learn what it means to actually receive love. We love to feel loved. It softens us, excites us, relaxes us and vitalizes us all at once.

But sometimes we don't receive the love that is given to us. We are like those child toys where you put the square object in the square hole and the round object in the round hole and the star object in the star-shaped hole. Sometimes we only experience the love in one shape. Sometimes this is just because we don't realize there are other shapes of love. This paper explores some of the shapes of love and how you can recognize them when they come to you. Sometimes we can get a little snobby about what love we are willing to accept. “What is this round shaped love? I do not accept round shaped love; I only accept star-shaped love”. This silliness can leave us empty of love. Both of these styles, not recognizing the love, and being picky about how the love should be shaped, leave us feeling deficient of love even in a sea of abundance.

If we want to hear the full symphony of love, we need to open ourselves up fully to all the ways the song of love can be sung. Think of the times in your life where you loved someone so dearly and no matter what you did, they did not feel or receive your love. How did that make you feel? That is what we make others feel when we cannot recognize their love or when we get so picky about its form that we do not accept it.

People talk about identifying their love language, as if that is the only language of love they can understand. Well, perhaps it is time to be multi-lingual with our love. And I can guarantee you there are a lot more than five languages of love (as described in Gary Chapman's 1992 Five Love Languages: How to Express Heartfelt Commitment to Your Mate). Below I will show you sixteen love styles: sixteen ways you can sing your love song, receive the love song of others and feel the abundance of love all around you every day. Because our job is not to run around frantically trying to get that one form of love we hope to receive. Our job, as both conductors, and aficionados of the love song, is to learn all the styles of singing and listening to the songs of love. If we feel love is in short supply, it is simply because we have not yet learned how to see it in all its forms and let it in. When we do, we will discover that love is all around us in every moment, and we will never be in short supply again.

Giving Love. While learning to receive love is the first step in learning how to play the love songs of your life, giving love is the second. When we feel our love deep inside, what is the impulse inside of us? How do we feel compelled to act on this love, to show this love to another? Remember what it was like to show your love to another and have them openly receive it? How beautiful it is to have our love openly accepted and received.
Perhaps we also have memories of when our love was not accepted. Either it was not noticed, or it was actively rejected. As a result, do we shut down our love by becoming afraid to show it? Perhaps we don't show our love because of cultural standards, allowing society to influence our views of what is acceptable when it comes to the amount of love we show, and the ways we show it. At some point, allowing the impulse of our love to launch though the fear and social norms to express itself allows us to bring to fruition our second love song.

Just like receiving love, sometimes we can get snobby about how we show our love. “I will only show my love in a square shaped pattern. If you can’t feel it, then forget it.” This attitude robs us of the joy and delight of showing love in all its forms. It’s like having a beautiful love song, but only playing the opening line over and over again. By expanding our expressions of love in all its forms, we can play the whole love song. Now that feels a bit more fulfilling, doesn’t it?

If our natural style does not land for our partner, it does not mean that our love isn't good enough. It may be their receptivity is shut down a bit. However, only hearing the first line of a love song might get a bit old or even irritating after 20 years. If we expand our range of notes, carry out the song to the end, we are more likely to find a style of song they can hear. It also provides some variety for our partner to enjoy. And that is a wonderful gift for anyone.

**Reciprocating love.** The third love song is reciprocity. Instead of just enjoying our partner delight us with their love song, or serenading our partner with our love song, with reciprocity we can sing the love song together. This deepens the love 'we space' shared between two people. If I only receive one note or one stanza, that is going to limit how much we can sing together. If I can only sing one note or one stanza that too will limit how much we can share together. But when we expand our range of love notes and stanza, we can combine them in an infinite array of love expressions. The love harmony is expanded.

Reciprocity of love has four styles: symmetrical, asymmetrical, synchronic, and asynchronous. This synchronic/asynchronous, symmetrical/asymmetrical pattern can be shown in quadrant form below:

<table>
<thead>
<tr>
<th>Synchronic symmetrical</th>
<th>Synchronic asymmetrical</th>
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<tr>
<td>Asynchronous symmetrical</td>
<td>Asynchronous asymmetrical</td>
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Synchronic reciprocity is when we are both sharing the love at the same time with each other. This can be symmetrical or asymmetrical. Sharing in a symmetrical manner is exemplified when two people hug each other. Both are sharing the same love form at the same time. But it can also be asymmetrical. For example, one person is rubbing their partner’s foot while that partner is sharing a love poem they wrote about the foot-rubbing partner. The love is being share synchronically (at the same time) but the style of love being shared is asymmetrical…it is a different love form. Still, the love is in reciprocity.
We can also have asynchronous love sharing. This is love being shared reciprocally but at different times. It can come in both symmetrical and asymmetrical forms. For example, someone might have received some bad news, so you hold them in your arms with love. They are in distress and not reciprocating the love at that time. But when you have bad news, they hold you that same way. That is an example of asynchronous love in a symmetrical pattern. It is the same style of love but reciprocated at different times. We can also have asynchronous love in an asymmetrical pattern. For example, I may be in distress and you listen to me deep and hold a loving space for me to share. Later, feeling so appreciative of your support I offer to give you a back rub. That is asynchronous and asymmetrical reciprocity. The love is being reciprocated, but at a different style and at a different time. After all, sometime people need love in different ways at different times.

Unified/integrated (interpenetrative) love. The fourth love song is unified/integrated. Young lovers sometimes get this feeling when they surprisingly finish each other’s sentences. It feels like you are the same. Like you are one person, one being. Older couples may find it in the daily life of having lived together so long they know exactly how the other person will wake up, go to sleep, manage their day and they are so connected mutually in this experience it is as if they are operating as one whole system. This unified love song leaves one in such a deep ‘we’ space of love that the individuals within that ‘we’ space fade in and out as needed but do not cling to their individual identities. It is a type of non-dual love space.

This non-dual love space has two elements to it. The first is seeing in the other traits of the self and seeing in the self traits of the other to such a degree that one can see that confronting the partner is confronting the self. Therefore, when the partner confronts us, we realize they are confronting themselves at the same time and when we confront our partner, we realize we are confronting ourselves at the same time.

The second aspect is seeing the co-developed co-evolving system of living that the two have created together as one living system. There is no blame to be had about what the other brought to the relationship or not. Both have contributed to this here-and-now dynamic. In time, this dynamic becomes stable yet evolving in such a way that the fulfillment within the relationship becomes increasingly stable yet dynamic, peaceful yet exciting.

I have written so far about lovers in this matrix of love, but of course that is just one form. Any form can be put into the matrix. Parent-child, friends, co-workers, neighbors, etc. Love, compassion, and mutual regard can also manifest at the level of groups and collectives – along the same STAGES dimensions of receptivity, activity, reciprocity, and interpenetration. These are just different forms that the love dynamic can take. It’s like soft-rock, classical, rap, alternative, and country. There is a place and a space for it all.

**The Four Love Instruments: Physical, Intellectual, Emotional, Social**

This next section is about not the song of love, but the instruments that play the song. A song without instruments or a voice to give it words is an unheard song. The four instruments of love come from you. You are the virtuoso of love, and you have four classes of instruments to use, each with an endless variety of expressions. Just as a guitar can be played beautifully in different
styles, so too can each of our classes of instruments of love express itself in a plethora of different styles and ranges.

The first instrument we can use to play our love song is our physical self. The physical self can use touch, movement, gifts, etc., in such a wide variety of forms we cannot list them all. The instrument of our physical self can play all the love songs listed above. We can receive love with our physical self, we can give love with our physical self, we can reciprocate love with our physical self, and we can unify love with our physical self.

The second love instrument we have is our cognition. We can think about anything: the stars, novels, fascinating studies, what the neighbors are doing. There is virtually an infinite number of ways we can share love with our intellect. Our intellectual instrument of love also can play all the love songs. We can receive with our intellect. We can give of our intellect. We can reciprocate with our intellect. We can unify with our intellect.

The third love instrument we have is our emotional self. There are many emotions and many experiences to have emotions with. We can share our emotion of love. We can share enjoyable feelings within a space of love. We can share difficult emotions with in a space of love. Our emotional self can also play all the love songs. We can receive emotional love. We can give emotional love. We can reciprocate emotional love. We can unify emotional love.

Finally, we have the social instrument. We are social beings and we have many ways to share social love. We can go out in social settings together. We can share our friends. We can share our family. Wedding ceremonies are often about sharing social love. We bring family, friends, neighbors, and congregations of church, work or clubs all together to share this social love. Social love can also play all the love songs. We can receive the gift of social love. We can give the gift of social love. We can reciprocate social love. We can unify social love.

The four love songs and the four love instruments create a sixteen-set matrix of love as illustrated below:

Table 4.2. The Love Matrix.

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<tr>
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<th>Physical</th>
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<td>Receptive Physical</td>
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Development and the Love Matrix

As we develop as humans, the way that our love songs and instruments present themselves develop along with us. The evolutionary trajectory of our beings can be mapped onto a matrix of consciousness. The STAGES matrix of consciousness has three tiers of stages; and a fourth tier that is predicted with the same model that identified these first three tiers. These four tiers are the Concrete, Subtle, Metaware, and Unified. They are defined by the perspectives held by individuals at specific stages of development. Within each tier there are four stages, which share the names of the love songs you learned in the first section: receptive, active, reciprocal, and integrated/unified.

At each stage of development, we have a love matrix specific to the strengths, weaknesses, interests, and wisdoms that define that stage. Below I have included the four tiers of the STAGES matrix, with the love matrix I described above. (See a deeper description of STAGES, including the numerical stage names, in the first article of this series, and in further material at stagesinternational.com.) The value of this is to see that each of these sixteen styles of love grows and changes along with our consciousness through four tiers, thus creating a potential of 64 love styles. I will not go into the specific attributes of the love song at each level in this paper, but it is worthy to note that this development occurs, and that the same pattern of 16 love songs exists at each developmental level.

Table 4.3. Physical, Emotional, Intellectual, and Social aspects of the Tiers.

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<tr>
<th>Concrete Tier</th>
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<tr>
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<td>Active Intellectual</td>
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<th>Unified Tier</th>
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<td>Receptive Emotional</td>
<td>Receptive Intellectual</td>
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<td>Reciprocal</td>
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<td>Integrated</td>
<td>Integrated Physical</td>
<td>Integrated Emotional</td>
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Depending on where you are developmentally, your love song and instruments will be different.

**Depth, Breadth and Height**

In addition to the developmental "height" of the tier structure, we also have depth. Depth is how intensely we feel an experience. Is it a barely recognizable noticing, or is it a detailed and deeply felt experience? A person who says they love basketball may casually enjoy watching the sport, while another may be fascinated with the specific strategies and all the statistics of each player and their team. They feel the love of their sport deeply and daily. Spiritually a person might say “Yes I was raised Christian”, while another devours the bible memorizing line and verse, and yet another feels the depth of love of spirit within them every moment as they walk through life.

Breadth is the ability to transfer the experience to other areas of life. I may love sports but only if my team wins. Or I may love sports regardless of which team wins, I love all the ways every team moves. Moving to even more breadth, I might love only one sport or I might broaden my experience of love to include all sports. In spirituality, I may be a devout loving Christian or I may fall in love with the beauty of all religions…delighting in all the ways humanity has found to connect with spirit. Breadth allows us to take love from one area of our life and transfer love to other areas. As a result, we can love our religion and not hate or push away any other religion.
We can love people of all religions and have a deep, fond connection to anyone we meet in a religious dynamic.

Height is our ability to take a new perspective on any given dynamic. I may love basketball with all my heart and soul (Depth). I may love all sports of all teams (Breadth). I might realize that all sports are an attempt at creating community (Height). As a result, of height awareness, I might begin to explore what ways of creating community I might love even more than my beloved sports. Is focusing on sports really doing the best for my overall community? Or is it draining resources that could be better utilized in other ways. Time, money, energy, that I put into sports might be better utilized if I put them into family connections, social justice, spiritual practices… or not. We may decide that sports are the best way for us. But we now know why we are doing the sports and what the point is and as a result we may actually engage in the sports experience in a new and more fulfilling manner.

Spiritually I might love Christianity with my whole heart and soul (depth). I may expand to Buddhism, Islam, Hinduism, etc. (breadth). With height I might realize all of these practices are just tools for understanding consciousness. As a result, I can explore more directly tools for understanding consciousness that I might love. In the end I might decide that Christianity is the best tool for understanding consciousness for me (and we can broaden that to what is the best tool for understanding consciousness in the community) or for me in the we-space. But now I understand why I am engaged in Christianity and I may now utilize and engage in Christian practice from a completely new perspective. One that allows my love to flourish from a new space of consciousness.

Content

We can put any content into these matrixes: from sports to spirituality, from gossip to intellectual discoveries of quantum physics, from simple hello’s to sharing ones deepest gut-wrenching secrets, from introducing two acquaintances in passing to inviting a friend or lover to join our family.

Content is what most people talk about when they say “we are compatible”. Content can be exciting or disturbing. It arouses the senses, the intellect and the emotions. It can rally the external community or be shared exclusively with the internal community we all hold inside. The content we choose reverberates through the matrix. When we highlight similar and congruent content, we can develop increasing intimacy and closeness. But we might also increase boredom and stagnation. When we highlight different content, we might increase dissonance and conflict. However, we might also nourish excitement and new discovery. As you can see, the way we approach content matters.

Concrete content are things we can experience with our senses or imagine experiencing with our senses. I can see a tree. I can imagine a tree. I can imagine a purple tree I have never seen before. All of this is concrete. Subtle content is more nuanced. A strategic plan, a typology, a complex adaptive system, internal ego-states are examples of subtle content that people can share. Metaware content is even more subtle. It is sharing of pure awareness itself. Unified content is unified objects of consciousness.
But Content is just one aspect of compatibility. How we share our love song and the instruments we use are also important points of compatibility. The Depth we reach, the Breath we experience, the Height we discover, are all aspects of the journey of consciousness and specifically of discovering love, and relationship in our lives.

When we expand our love song in all three dimensions of height, depth and breadth we can create a very large space of love that can last through various challenges and persist over large spans of time.

**Instruments/Style/Content**

Instruments play the love song. How the instruments are played provides the style. Content is the music that is played. I have chosen the instruments of Physical, cognitive, emotional and social because all humans have these. If they did not, they would not be alive and they would not be human. There are a billion people on the plant that do not have a spiritual life. But there is not one person alive that does not have a body, cognition, emotion and social experience. Even if you isolate yourself as a hermit you were raised in a social world or you would have died, you carry that social context within you everywhere you go. How we play the instruments is the style of music that is played. Content is what the music is. Content may be empty or full. It may contain anything from peanut butter sandwiches to spiritual states.

**Summary**

In summary, we have the four love songs: receptive, active, reciprocal, and unified. We have four instruments of love: the physical instrument, the intellectual instrument, the emotional instrument and the social instrument. These two sets combined create sixteen ways human love can be expressed. When we add in height, developmentally and/or spiritually speaking, this sixteen-piece matrix repeats itself in four tiers: The Concrete, the Subtle, the Metaware, and the Unified. This creates a field of 64 different love songs. Each of these 64 love songs can be played in infinite levels of depth and breadth. Each of these love songs can be played out with any content you wish to put into it from dust to spirit.

The love matrix can be used as a tool to help you in your loving relationships. First and foremost, if you feel like you are not loved, one thing you can do is look at the love matrix and see what types of love you are not recognizing. There is a good chance that at least one or many of these forms of love are coming in to you at any given time, if not from the Concrete tier, then from the Subtle or Metaware tier.

Secondly, if you want your love to be felt by another, you can look at the love matrix and see what styles of love you are actively expressing and which ones you are leaving out. By adding in these styles of love you will likely increase your chances of having your love felt by another.

Thirdly, if you want to deepen your love intimacy with another you can notice how much you let in their presence to actually affect you. You can share that deep effect upon you back to them and allow them their next expression to affect you. This leads to a co-evolutionary cycle of love growth.
Fourth, to broaden your love, you can explore the various forms of love in the love matrix. You can explore the matrix cells you enjoy and explore how to include other forms of love and connection from other cells in the matrix that might be enjoyable for you and your partner.

You can then add in to each cell any of the infinite forms of content that is more specifically important for you and your partner in your unique relationship. Notice what content your partner likes and match it. Or notice what they don’t have and complement it.

Finally, if you are feeling stumped or feel a passion for it, you can raise your consciousness to a later perspective to get a bird’s eye view on the entire process. This height exploration will open up a new world of love and exploration and will progressively move you to later stages of understanding and experiencing love.

These tools will help you to feel, express, exchange and deepen your love. The songs available in the love matrix will give you a lifetime of endless explorations in the world of love. I invite you to enjoy the symphony.
7. Organizational Shadow: Projection/Introjection Dynamics

Introduction

Our internal disturbances, our interpersonal conflicts, and our organizational dysfunctions are often a result of shadow. In this article, we will review organizational shadow specifically as it relates to the Projection/Introjection dynamic. This dynamic drives a great percentage of the issues that arise in organizational work.

To begin, let us review the STAGES Matrix briefly – see Figure 1.1 in the first section.

Focusing on the learning sequence column (4th column, Question 3), we see that we begin our learning sequence with receptive skills. Receptivity is the ability to allow things to come into us. To learn anything new we must first receive it. The second phase of the learning sequence is active. Once we receive, we take what we received and learn to be active with it. The third phase is reciprocity. In reciprocity we combine receiving and action into an interpersonal dynamic which leads to our pro-social world. Finally, we have interpenetration which allows us to understand how the systems works as a whole. In short, instead of being in the system and had by it, we can see the system and make conscious adjustments to it that will affect others and ourselves within the system. This final skill allows us to be powerful and efficient at organizational design. But this capacity is only as good as the depth of each stage before it.

One of the crucial elements to good organizational design is understanding organizational shadow. Without it your greatest designs can be undermined and destroyed as fast as you can build them. Organizational shadow is framed primarily by two shadow dynamics: projection and introjection.

Projection and Introjection

We tend to reserve the term ‘projection’ for unconscious traits that we have and put onto others. For example, I might be critical, but I see another person as critical and talk about how critical that other person is. Even if the other person is somewhat critical, it is my un-owned critical behavior that fuels my drive to complain about this other person. Whole organizations can participate in projection which keeps the organization from seeing important traits in itself that could be improved and result in more efficiency and enjoyment.

Projection comes from our action phase of learning. We project out onto the world our behavior, thoughts, emotions, and beliefs. Projection is the same dynamic as action/agency – it is the same process. Anytime we publicly act, think, believe, and express our feelings we are projecting them into the world for others to receive.

What we receive is introjection. Introjection is a term often reserved for receiving things from others that are not ours to hold. In the example above, I might be projecting upon another person that they are critical. They might believe this about themselves even if it has little or no truth to it. Thus, they have introjected my projection into themselves. Whole organizations can get lost in introjections and thus manufacture problems that did not exist. Introjection is often reserved for
when we do this in an unconscious manner. However, introjection is simply receiving something that has been presented. It is the same process as receptivity.

Life uses what is available. Referring to our shadow, we use the psychological tools that are available – namely receptivity and agency. In shadow, we use these tools in an unconscious and often unhealthy manner. Projection is the use of agency in an unconscious manner. Introjection is the use of receptivity in an unconscious manner.

Projection and introjection are not necessarily bad. We project upon our 1.5 children moral values and they introject them and become pro-social beings that no longer hit people to get whatever they want. They do not consciously introject these values, and we are often unconscious in how we project these values onto our children. However, it still works and makes for a better society.

The outcome of combining receptivity and agency is reciprocity. The reciprocity of receptivity and agency routinely gets so good it becomes unconscious and becomes projection and introjection. Much of the time this process, even unconscious, works well. Often it works well precisely because it is unconscious. We take new things we learn and make them habitual so they operate automatically and unconsciously. Walking, for example, used to take all our conscious effort. But now we can walk without thinking about it and use that freedom to think about other things. It is because it is unconscious that we free up pre-frontal cortex activity for learning something new.

Unfortunately, some of the coding we have made habitual works in some situations (like growing up in a specific kind of a family) and does not work in other arenas (such as new families or work environments). As a result, this core human process sometimes breaks down in new environments leading to personal and interpersonal dysfunction. And this leads us directly into organizational shadow.

Let us next turn our attention to how projection and introjection leads to organizational shadow. Below is a chart that defines out 25 specific projection/introjection dynamics that define and delineate organizational shadow. See Table 5.1.

This chart defines each type of shadow that occurs in collectives including business and organizational settings. The first column contains the part that is enacting the projection. As you read left to right you see the various ways that unit may project shadow issues upon other units. For example, in the first column we begin with the individual. The individual may project shadow upon another individual (column 2) an individual role (column 3) a collective (column 4), a collective role (column 5) or a developmental perspective (column 6).
The second reference in each cell is who is being projected upon. Those that are being projected upon are susceptible to introject shadow. When we operate within an environment of specific projections it is common that we take on some or all of these projections. Thus, the second reference in each cell is the unit that is introjecting the projective shadow dynamic. For example, in the individual row and the second column, an individual is introjecting a projection from another individual. In the next column it is an individual role that is the target of the projection and any individual in that role would be potentially introjecting the projection. In the next column we have a collective introjecting from an individual. By design, then, you can use this chart to identify personal and organizational projection, personal or organizational introjections or comprehensively the projection/introjection dynamic.

Projections are the inverse partner of introjections. One unit projects onto another, and the other unit (often) introjects that projection. We don't have to introject any given projection. However, being social beings, we often do. And we often do so unconsciously, habitually, and pervasively. This is what sets up the projection/introjection dynamic.

In physics, an object in motion will remain in motion unless acted upon by an outside force. Similarly, once the projection/introjection dynamic is in motion it will remain in motion unless acted upon by an outside force. That outside force is someone who can see it and make the changes so everyone lives a happier life. Sometimes we can do this ourselves, sometimes it requires another skilled observer. This article is about helping you to be that skilled observer. To do this effectively let us begin with definitions.
Defining Terms

For the purposes of this chart we will use the following definitions:

An individual is a specific person.

An individual role is the role that person plays in the collective. It may be a specific job in a business. It may be a family role such as father, mother, or youngest child. It may be an archetypal role such as hero, clown, rebel, etc. The important thing to note here is that it is not about the person, it is about the role. Anyone who would be in that role would receive the same shadow projection. However, people don't realize this is happening, so the individual and those projecting upon the individual role often unwittingly make it about the individual person. Often, we introject from roles as well and play them out as if that is who we really are. We might also, as a nature of the role, tend to project onto others.

A collective is a sub-group within the overall organization. Collectives gather around similar values, orientations, and often around charismatic leaders that may or may not be official leaders.

A collective role is what a sub-groups role is. It may be parenting, it may be team leadership collective, it may be billing office staff or direct providers. Collectives often have roles that receive projection. Those within such collectives might feel it is about them personally, but anyone in that collective role would receive the same shadow projection in that situation.

Development perspective is the perspective from a stage of development. Each developmental stage tends to see the world in a particular way and will have tendencies to project and be projected upon in a certain manner.

Assessing Organizational Shadow

When we assess organizational shadow, it is important to understand exactly what kind of shadow projections are occurring. If we do not accurately assess the type of shadow projection, we can be ineffective or even harmful in our attempts to address it.

For example, if we think the shadow projection of a collective on an individual role is accurate feedback about that specific individual, we accentuate the shadow by addressing the individual’s issues. It is important to assess if the feedback is truly about the person or about the role dynamics. What we need to do instead is address the way the collective treats anyone who is in that role. Each type of shadow projection requires a different nuanced way to address it. Let’s explore these nuances by going through each cell of the chart.

Individual to Individual: The individual to an individual projection/introjection dynamic is what most people think about when they hear about projection. On person projects upon another and the other person absorbed that projection as an introject. We all have shadow (hidden parts of ourselves). It is easy and common to take a hidden part of ourselves and put it onto another person. I might be critical of others; I don’t notice it in myself, but I really notice it in others and
criticize them for it. I might do this even if the person has very little critical elements. My lack of seeing my own criticism will often accentuate seeing critical elements in the other person.

This is the common way of looking at projections and introjections. However, after working for 30 years with projections and interjections it has become clear to me that that is far too simplistic of a notion. As you can see in this table that way of projecting is only 1 of 25 styles of projection/introjection dynamics.

**Individual to Individual Role:** Often the projection is not as personal as we might make it. It is common for an individual to project upon another individual not because of who they are but because of their role. Any person in that role would receive the same basic projection regardless of who they are.

Individuals in organizations can project upon leaders anything from heroic figures to controlling tyrants. Sometimes the projection is a golden projection, such as undue respect. Sometimes the projection is a dark projection, like undue criticism: that since the boss is the boss the individual in that role of being the boss is heartless and controlling. Other roles that may receive undue projections are roles of balancing the budget and setting spending limits, roles of scheduling, roles of service, etc.

When doing organizational shadow work, it is important to notice if the disturbance is really about the person or about the role. The individual will feel and make it sound like it is a personal issue, but often it is really about the role.

**Individual to Collective:** Individuals have all manners of personal issues. As a result, they may see collectives in different and unique ways. A person who was routinely bullied in collectives might find collective gatherings a source of anxiety. Another individual might find the same collective a source for personal showcasing. Sometimes the disturbance is about the individual’s personal issues and understandings of what a collective is.

This is also the place of individual sexism, racism, homophobia, religious orientation persecution, and other such horrors that we see in the world and the workplace. Prejudices are generally individual (or collective) projections upon others. When you listen to a prejudice person talk about the group they are prejudiced against, you will hear many of the traits of their own shadow self. We can notice this in ourselves with our own prejudices.

**Individual to Collective Role:** Often the projection is not really about the specific collective. Individuals will often project upon a collective role. Collective roles of authority can bring out authoritarian issues with some individuals. Some individuals may have dominance issues with collectives that do service work. Notice here it is not an individual role, it is a collective role. For example, all janitorial staff are lesser that me. All leadership staff are arrogant.

**Individual to Developmental Perspective:** Individuals often get triggered by certain developmental levels. For example, some individuals were traumatized when they were at a specific developmental level. As a result, when they witness someone in that developmental level, they may have an undue reaction to them just because of the developmental traits. In
addition, the person who traumatized them was also at a specific developmental level. This kind of incident can lead to generalizations and thus projections upon others at that developmental level. Positive projections also occur in this way. Someone who was close to their dad who was at 3.5 might idolize others at 3.5.

**Individual Role to Individual:** Sometimes it is not the individual per se that is projecting, but their role. In organizations there are often many roles and many of these roles might be in a hierarchy. If we introject meaning about ourselves based upon the hierarchical role division, we might inflate or deflate our actual value in relation to others even outside of the role differential. A person in a higher position might carry this role into their life. Thus, when they meet someone for dinner, they may project that others are not as great as themselves because of the role they carry with them. A person in a lower role position might defer to others in life when in fact, they may have stronger traits than others in many areas.

**Individual Role to Individual Role:** In organizations there are often many roles and many of these roles might be organized into a hierarchy. A person in a higher role than another might project that the person in a lower role is less smart or less advanced than themselves. A person in a role living in that projection might then introject that projection and feel subordinate not just in organizational ranking but as a person, even though it is solely about the role differential. The difference between this and the previous cell (individual role to an individual) is that the dynamic occurs with both sides in roles.

It is not uncommon that at least some “subordinates” are more intelligent and more developmentally advanced that their “superiors.” Dr. Terri O’Fallon has conducted developmental assessments of various people throughout organizations. In one, the head of the janitorial department was later than everyone in the executive leadership team.

In a related example, I had a therapist tell me one time about a problem client. She had the role of therapist, the other had the role of client. Since the client did not heal from her treatment the client was considered a “treatment failure.” You might imagine that a client of this therapist might take that a little personal. But it was really about the roles the therapist had in her mind and how she lived up to her role to provide a treatment protocol, but the other person did not live up to their role to heal. Role projections can feel very personal when it is just a role projection. Clarifying that distinction can make all the difference in healing both the injured person and the organizational dynamic.

**Individual Role to a Collective:** To understand this one, consider how the head of an advertising agency might view the collective of potential customers vs the head of the customer service department, or the head of the design team for the product. Each will have their own projection upon the collective of consumers even though the consumers are the same people. Understanding how the role affects the view of a population is important in understanding shadow and has a huge impact upon how the organization develops products and interacts around them.

**Individual Role to a Collective Role:** People may project from their role onto an entire collective role. A doctor might project onto all nurses that he or she is superior to the nurses
because of the degree as a doctor. They may do so even if the nurses often know more about the patients than the doctor does. In such cases, the doctor could be a much better doctor by listening to the nurses’ wisdom instead of lording superiority over them.

**Individual Role to Developmental Perspective:** An individual role may be a set up for projecting upon an entire developmental stage. It is common for executives of corporations to project upon those at 4.0 as inefficient when those at 4.0 are working on deeper and cooperative solutions which may last longer and have fewer issues over time.

**Collective to Individual:** It is common for collectives to project upon an individual. This is how collectives socialize their children, peers, leaders and others. This is how the unofficial corporate culture gets created. Leaders can say whatever they want about designing corporate culture, but that declaration often has little effect upon the very real covert culture being played out. When new people come into the collective the collective begins to shape them via the projection/introjection dynamic. If we do not address this often-unconscious-process, our conscious efforts to design corporate culture will never get to the undercover culture that has an impact on daily operations. This undercover culture can undo the intentional corporate culture as fast as the designers can implement the cultural change.

**Collective to Individual Role:** Collectives also routinely project upon an individual role. Congregations generally project upon their pastor spiritual purity and wisdom. In business, collectives form around all manner of conscious and unconscious processes. A person who is a charismatic social leader without official position has a great deal of power on shaping how the collective views individual roles such as team leader or CEO.

In one large organization, a charismatic transgender person rallied a large collective against the CEO who was already enacting great changes in gender equality/neutrality in the workplace. Ironically, it was the very gender training that gave this person a platform for acting out their personal authoritarian issues (individual to individual role projection) and rallying a collective for support. The result was a collective projection upon an individual role. The CEO took this personal when it was really an individual’s issue with the role he held and that individual’s charismatic appeal to a collective rallying around the very training the CEO enacted.²

**Collective to Collective:** We also commonly see collectives project upon collectives. Republicans project upon Democrats that Democrats are stupid while Democrats project upon Republican that Republicans are stupid. In business we see similar divides in the collective workplace. It is like grown-up versions of high school cliques. These divisions can range from completely irrelevant to organizational functioning to those that become massively disruptive. Noticing these divisions and knowing how to address them can help an organization to function better.

² I want to acknowledge Dr. Terri O’Fallon who identified this pattern. She worked with an organization that the collective targeted an individual role. This person had taken on the role of keeping the organizations up to credentials while everyone else was enjoying deepening their interactions. The role she took on left her a target to the dominant culture.
The Roman leader Constantine understood this and addressed it when he designed holidays integrating Christian names and Pagan rituals so the two groups would stop fighting and function together. It worked, and we continue following his design even in different cultures on different continents and around the world nearly 2,000 years later. When we design well, it is durable, functional and lasting.

**Collective to Collective Role:** The population of the United States often projects upon congress either honor or disgust. In business, collectives can form (like those cliques above) that congregate around similar personal issues and project upon collective roles. They might complain about leadership staff or the janitorial department.

**Collective to Developmental Perspective:** Collectives can form against a whole developmental perspective. In organizations that are not consciously aware of specific shadow issues, a charismatic leader can have an issue with a specific developmental level and rally a collective against it. It might be against 3.0 perfectionism, 3.5 achievers, 4.0 group think, etc.

**Collective Role to Individual:** A team of management executives may not like a person who is outspoken (and accurate) about their failures. They might project that this person is a trouble-maker and fire them when they could be a source of valuable information that might make their company more successful.

**Collective Role to Individual Role:** Using politics again, Congress, a collective role, may project upon the individual role of the presidency different than they would project upon the individual role of the head of the janitorial department (even if the janitor is significantly smarter than the president). Organizations, especially large ones, often have multiple people in a similar collective role. They can get excited and frustrated as they pursue their collective role agenda. Thus, roles that support or inhibit them will receive different projections.

When we have collective role issues with an individual role, that individual role often becomes vacant as the person in that role keeps receiving inordinate amounts of negative projections. If you see a revolving individual role vacancy, then there is a good chance there is a problem with the role carrying heavy negative projections. Often an individual can sustain projections from another individual or another individual role. But when collectives and collective roles become involved in the projection it is quite often nearly insurmountable for the individual to continually sustain such levels of negative projection. Thus, they get sick, die, or leave.

**Collective Role to Collective:** This is how Congress might look at the American population, or an advertising unit looks at consumers. The view that a design team has of consumers will affect how they design a product. The design team may come up with a great idea that consumers want. However, it may have a part that is inconvenient. A part that requires more work and more money. As a result, they might project upon consumers that they will not notice if they use a cheap alternative. (What they are projecting in this case is their desire to not have to solve the problem correctly and projecting then that the customers won’t care either.)
Collective Role to Collective Role: Senators may view Representatives in a particular light and vice versa. The design team may project failure upon the marketing department when it is the product that needs improvement. The projection/introjection dynamic can work in reverse as well. The marketing department complains about design team instead of seeing that they themselves do not understand the actual design purpose and function correctly and are marketing it to the wrong clientele in the wrong manner. If the design team accepts the projection (introjects it into their collective) then they will work harder at creating new designs the marketing team is marketing instead of designs that consumers need. As a result, good designs get changed and there is no re-education of the marketing team on understanding who, what, why, and how the marketing needs to work for this product.

Collective Role to Developmental Perspective: In organizations, collective roles often lead to common orientations as the team collaborates around the role goal. If the goal requires quick adaptive changes the collective can begin to project dark shadow on 3.0 who preferences perfection over efficiency and 4.0 who preferences collective agreement over efficient ‘good enough’ decision making. Alternatively, if the role requires detailed and cooperative work, anyone at 3.5 or 4.0 could be projected upon in a positive light.

Developmental Perspective Column: Each developmental perspective has its own lens through which it views the world. As a result, there are multiple developmental levels that could be addressed on each of these next projection/introjection pairs. I will not go into that level of detail but instead will provide a sampling of how this column works. If you want more detail on it, you may choose to get more in depth training in developmental levels.

Developmental perspective to individual: One thing common to most developmental levels is that we tend to project that others can see exactly what we see. As a result, we get confused, frustrated, and condemning to those who see the world differently.

The other common projection is that if people don't agree with our basic viewpoint then they just can’t or won’t see what we see. Sometimes, however, the other person can see exactly what we see but also sees from another perspective.

As a result, our 2.5 self will often project upon an individual that they need to be converted. If they will not be converted to their belief system, then they will tend to be rejected. Our 3.5 self, a common business executive developmental level, will tend to see an individual as someone who wants to achieve. If they do not, we may see them as lazy. Our 4.0 self may project that others want/need to be deeply intimate and process. If they do not then they are superficial.

Developmental Perspective to Individual Role: Development perspective of an individual also will look at roles in very different ways. A person at 2.0 or 2.5 might view a fundamentalist preacher as a link to God and salvation while a 4.0 might recoil in disgust. A 3.5 might like the hierarchical leadership with a CEO while someone at 4.0 might project upon the CEO they are an egoist even if the CEO would like to create a horizontal organization.

My 3.5 clients often attempt to motivate people the way they themselves are motivated and are bewildered by those who don't respond, often seeing them as lazy or stupid. In reality, many of
these “subordinates” would give the shirt off their back if they were just recognized for their humanity rather than bribed for harder work. At 3.5 we can often push our children to achieve better than their peers when their children at 2.0 need to let go of their ego and get along as equals.

My 4.0 parents project their passion to process upon their children. The children often come to me wishing they could just get on with their life, but they have to process with their parents “forever.” (It is good to talk with our kids, but prolonged processing is often not what they need or want.)

**Developmental Perspective to Collective:** We can also explore how each developmental level tends to view a collective. At 2.0 collectives are groups to join. At 2.5 collectives are groups that are converted or are in need of conversion. At 3.0 groups are experiences to help explore who we are and how we operate. At 3.5 collectives are a means to achievement. At 4.0 collectives are ways to develop deep intimacy and we-space understandings. At 4.5 collectives are seen as integrally interactive and interpenetrative complex adaptive systems.

**Developmental Perspective to Collective Role:** Each developmental level may also view a collective role in a certain light. Collectives that make decisions for the larger group will receive projections differently from those from different developmental levels. 2.5 might project wisdom upon the role of the rule makers. 3.0 might project some wisdom, but limited. 3.5 may project onto rule makers limited authority and claim their own authority even if it is not institutionally accurate if the rule gets in the way of achievement. 4.0 might project that since not everyone was consulted the role has limited validity.

**Developmental Prospective to Developmental Perspective:** This last one requires additional discussion. Each developmental perspective may engage in the projection/introjection dynamic with each other stage. The following outlines this dynamic:

**Table 5.2.** Projection/introjection dynamics developmental perspective to developmental perspective.

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First, we will note that 1.0 is a baby, they are in receptive mode and are not yet capable of personal agency. As a result, the row is blank because they are not yet projecting. They are interjecting, however, which is how they learn.
Second, let us explore patterns of projection. Often each developmental level has a rejection quality towards the developmental level just below it. Thus 1.5 will call 1.0 babies. 2.0 will call 1.5 spoiled brats. 2.5 will call 2.0 immature. 3.0 will call 2.5 rigid. 3.5 may often call 3.0 inefficient. 4.0 may consider 3.5 ego driven. 4.5 might call 4.0 victimhood mentality.

The reverse can sometimes be true as well. Starting at 2.5, those at this developmental level might feel that 3.0 is losing their moral compass. 3.0 might feel like 3.5 has little pride in their work, 3.5 may consider 4.0 inefficient and 4.0 may consider 4.5 elitist.

Positive projections occur as well. 2.5 and 3.0 might project awe upon 3.5 who can put together complex business dynamics successfully. 3.5 may project awe upon 4.0 who senses things that they do not. (This often shows up in marriages where the 3.5 husband feels a great deal of honor for his 4.0 wife who just understands things he does not.)

Passive stages (X.0 stages) will tend to project upon active stages as either oppressive or guiding. Active stages (X.5 stages) will tend to project upon passive stages as weak or awe inspiring.

Passive stages will tend to project upon other passive stages either camaraderie or lack of motivation. Active stages will tend to project upon other active stages either like-mindedness or competitiveness.

Each developmental level tends to have a projection on each other developmental perspective. We will not go through all of these in this short paper. If you want more detailed information on this, you may consider taking courses in development and developmental perspective interactions.

In our workshops we have people play different developmental levels in conversations to get the feel of what it is like to have developmental projections and introjections occurring based solely upon developmental perspective. Even in role play, the developmental projections often lead to significant introjections that leads to disturbance in the individuals in the role play. The participants feel the disturbance even when they are role playing and that highlights how powerful, pervasive and impactful developmental projections are in our lives, businesses, and relationships.

This pervasive dynamic of developmental projection/introjection in all collectives drives much of the agreement and conflict within them. People are often shocked to discover that much of what we think of as personality conflict is actually purely developmental perspectives reacting to other developmental perspectives.

All of this inter-developmental dynamic is contained within this last cell of the Organizational Shadow Chart. Even though it is only one cell in the Organizational Shadow Chart, it is pervasively involved in the whole chart because we all are always perceiving the world from our own developmental perspective.
When we are working with organizational development and we discover that there is disturbance between two units (individuals or collectives) it is easy to delve into the personality issues that may be involved. This often leads us down a path of personal issues with each other, personal conflict and belief in “personality incompatibility”.

However, by taking a larger view we can see that most of the time the personality is not the issue at all. It is role and developmental perspectives that drive much of the internal disturbances between people and collectives.

By knowing this and utilizing the charts above you will be able to more easily and accurately identify the true source of the individual or organizational conflict. Once identified, you can focus in on the true source of the issue to make targeted, effective, and comprehensive changes. As a result, people will internally feel less disturbed and more at peace. The collectives they inhabit will function with a more effortless flow. You will be able to be more effective whether that conflict is in a small collective like a marriage or a vast collective like a fortune 500 company.

**Summary**

In summary, even though projection feels very personal, in most cases it is not. Instead it is virtually choreographed into the roles and developmental perspectives that various people have and hold.

When you understand these roles and developmental perspectives you can actually predict the future of interactions between individuals and collectives as long as they remain in their perspective and roles. If they change perspectives and/or roles, then these predictable patterns change as well.

With these understandings you can often predict organizational dynamics, successes, failures, and trouble spots. You can institute changes to existing issues efficiently and effectively. In addition, you will be able to prevent predictable problems in the future before they occur. Finally, by addressing the true source of the conflict you will more rapidly, effectively and comprehensively help individuals and collectives through conflicts to more enjoyable and functional dynamics.
Principles and Practices for Developmentally Aware Teaching and Mentoring in Higher Education

Abigail Lynam, PhD

Abstract: Understanding one’s own development as an educator, as well as the developmental diversity of students can have a significant impact on how educators approach teaching, mentorship, and design learning experiences. Developmentally informed educators recognize the phases of development that students are likely to be in and adapt their teaching accordingly. Recognizing developmental diversity, they adjust the outcomes, processes, and mentoring to meet the students where they are developmentally. Without this awareness and knowledge, educational programs are more likely to teach for particular forms of development, which provide an appropriate stretch for some students but not for others. In addition, educators may be more likely to project their own developmental needs onto students, teaching who they are, rather than who is in front of them. This article offers a review of adult development theory, specifically O’Fallon’s STAGES model, and its application to teaching and learning. It includes the results of research on the impact of learning about adult development for faculty and students in a graduate program and the findings of additional research on the meaning-making and perspective-taking of educators through the stages of development. It concludes with practical insights and principles for teaching and mentoring developmentally.

Keywords: Adult development, adult learning, constructive development theory, ego development, higher education, STAGES, transformative learning.

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**Introduction**

Learning about adult development theory and practice has transformed how I approach teaching and mentorship possibly more than anything else I have learned in my twenty years of teaching. And since I first learned about adult development, my understanding and application of this learning has continued to deepen and evolve.

This article offers a review of adult development theory, specifically O’Fallon’s STAGES model and its application to teaching and learning. It includes the results of research on the impact of learning about adult development for faculty and students in a graduate program, the findings of additional research on the meaning-making and perspective-taking of educators through the stages of development, and practical insights for teaching and mentoring.

Five years into teaching for transformative post-secondary programs in sustainability leadership, it became evident that some students thrived in the curriculum, adopting the ecological and social justice values, perspectives, and related behaviors that the program taught towards, and others didn’t. After learning there are empirically-based maps of how adults develop cognitively, emotionally, behaviorally, and spiritually – I thought I had found the tool that would more effectively transform students’ worldviews. Ten years into research and study, I took a 180 degree turn. I no longer sought to transform another, but rather to meet students where they are in their developmental unfolding, and to support them on their growing edges. I also began to recognize my own and the programs’ tendencies to teach for a particular form of development and saw that this was only a fit for a portion of the students. And I saw my tendencies to teach to my own developmental edges; essentially to project my own developmental needs onto the students and to teach ‘who I was’, rather than to who the students were becoming.

During the process of learning about adult development and its application in education, I wanted to understand more about how development shapes teaching, mentorship, and learning needs. I also wondered how learning about development, one’s own and others’, might impact students and faculty in higher education. I conducted research to find answers to questions such as: How does taking a developmental assessment impact students and faculty?; How might learning about development effect an individual’s development?; How might learning about development effect student’s relationships with faculty and vice versa?; What happens when the developmental range of students is wider than the faculty? In addition to the research, I collaborated with Terri O’Fallon to create a STAGES specialty assessment for educators, which supported additional research into the meaning making and identities of educators. This article reviews the results of the research, and lessons learned from teaching developmentally, as well as teaching about adult development in professional and academic contexts.

**Adult Learning**

Adult learning is a complex and diverse field of theory and practice and therefore can be challenging to define:
Perspectives on adult learning have changed dramatically over the decades. Adult learning has been viewed as a process of being freed from the oppression of being illiterate, a means of gaining knowledge and skills, a way to satisfy learner needs, and a process of critical self-reflection that can lead to transformation. The phenomenon of adult learning is complex and difficult to capture in any one definition. (Cranton, 1994, p. 1)

Developmental researcher and educator, O’Fallon speaks to this when she says “there is a different educational theory for every developmental perspective”, making the point that educators operating from different stages of meaning making are drawn to and enact different educational theories (2011, para. 3). There are multiple dimensions of diversity, including for example family backgrounds, learning styles, age, and ethnicity, all of which influence learning needs and interests. And there is a “hidden form of diversity” which Drago-Severson calls “the new pluralism” (2004a), that functions like an internal operating system in the individual. The developmental diversity of both the educators and their students, has implications for teaching and learning.

In addition to the diversity of individuals in a teaching/learning context, the rapidly changing contexts of our lives in the twenty first century also informs the needs and aims of adult education. The aims of adult education have often been stated as preparing adults to participate in the domains of work, family, and society (Merriam & Caffarella, 2006). However, accelerating complexity and the rate of change in our increasingly global world calls for “innovative habits of learning as a way to better manage work/life situations” (Goleman, 1997; Goleman et al, 2002; Heifetz, 1994). The ability to think systematically and to bridge differences through perspective-taking increasingly becomes an imperative if we are to thrive in our more interdependent global society and constructively engage with complex global issues (Harris, 2002).

Adult Development, Teaching, and Learning

Adult developmental theory derives from 50 years of longitudinal grounded theory and probability research and offers insight into the particular developmental needs of students. It also contributes to understanding how an educators’ development influences and interacts with student’s development and how to work with the developmental diversity of a cohort of students to better support learning for all (Cook-Greuter, 2013; Drago-Severson, 2004; Kegan, 1994; O’Fallon, 2016).

Developmental patterns include widening frames of identity, care, and responsibility (from oneself, to one’s family or community, to all of humanity, the planet, and the cosmos). Thinking patterns move developmentally from black and white thinking, to either/or, to both/and, to paradoxical and integrative thinking. In addition, there are increasing perspective taking capacities (1st, 2nd, 3rd, 4th and beyond) and an iteration of learning patterns within each tier of development (O’Fallon, 2016). All of these patterns are applicable to teaching and learning.

Developmental researchers and practitioners refer to developmental maps as a spectrum of compassion (Cook-Greuter, 2013; O’Fallon, 2016), because the maps can support increased understanding and valuing of multiple ways of being in the world. Each developmental phase,
either active or latent as a capacity within each of us, offers both gifts and blind spots. The maps also offer insight into the developmental process – that there are times in a person’s life where they are opening to new ways of seeing, times where they are stabilizing and integrating new insights, and times where they are learning to be active in the world with these new capacities. Learning is fundamentally a developmental process and understanding more about these developmental patterns informs teaching and learning.

**Constructive Development Theory**

Constructive-developmental theory is based on the assumption that everyone has a lens through which they experience the world, and this lens shapes the reality that each person experiences and the meaning they make of it. Research reveals that these meaning-making systems develop over time and with patterns that are relatively consistent across gender, sociocultural context, and other personality differences (Cook-Greuter, 2013).

Constructive-developmental theory for ego development was created by Jane Loevinger (1976) and expanded upon by Torbert (2004), Cook-Greuter (2013), and O’Fallon (2016). It integrates cognitive (thinking), affective (being or identity), and behavioral (doing) development. According to Harvard professor Robert Kegan,

> What gradually happens is not just a linear accretion of more and more that one can look at or think about, but a qualitative shift in the very shape of the window or lens through which one looks at the world. (2002, p. 148)

An individual’s developmental center of gravity influences how they make meaning, what they are aware of and therefore able to act upon, how they orient to feedback, their perspective-taking capacities, and their tendencies with regards to thinking patterns (Cook-Greuter, 2013; O’Fallon, 2016). Individuals’ stages of development also affect the kind of support and challenges that they need as learners. Table 1 details the differing stages names used by different theorists.

**Table 1. Comparing Developmental Stage Names.**

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<tbody>
<tr>
<td>Stage 5: Inter-individual/Post-modern</td>
<td>6 Unitive Ironist</td>
<td>6.5 Illumined</td>
<td>6.0 Universal</td>
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<tr>
<td></td>
<td>5/6 Construct-aware Alchemist</td>
<td>5.5 Transpersonal</td>
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<td></td>
<td>5 Autonomous Strategist</td>
<td>5.0 Construct Aware</td>
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<td>Stage 4: Institutional/Modern</td>
<td>4/5 Individualist Individualist</td>
<td>4.5 Strategist</td>
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<td></td>
<td>4 Conscientious Achiever</td>
<td>4.0 Pluralist</td>
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<td>3.5 Achiever</td>
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Stage 3: Interpersonal/Traditional

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<th></th>
<th>Self-Conscious</th>
<th>Expert</th>
<th>3.0 Expert</th>
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<tr>
<td>3</td>
<td>Conformist</td>
<td>Diplomat</td>
<td>2.5 Conformist</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>2.0 Rule Oriented</td>
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Stage 2: Imperial

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<th>Self-defensive</th>
<th>Opportunist</th>
<th>1.5 Opportunist</th>
</tr>
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<tr>
<td>2</td>
<td>Impulsive</td>
<td>Impulsive</td>
<td>1.0 Impulsive</td>
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Core Assumptions

Constructive-developmental theory shares the following summarized assumptions (Cook Greuter, 2004, McCauley, et al. 2006, p. 636):

- People actively construct their understanding and ways of making sense of themselves and the world.

- Growth occurs in a logical progression of stages, evolving from less to more complex.

- Later stages are reached only by journeying through earlier stages—each stage transcends and includes previous stages. The movement is often likened to an ever-widening spiral of development.

- Each later stage is more differentiated, inclusive, and integrated—and capable of more optimal functioning in a complex and changing world. Later stages are not better in any absolute sense, but may be better (i.e., more adequate) in a relative sense.

- As development unfolds, tolerance for difference and ambiguity increases, while defenses decrease.

- Development occurs through interplay between the person and the environment, not just one or the other.

- A person’s stage of development influences what someone notices or can become aware of, and therefore, what they can describe, articulate, reflect on, influence, and change.

Caveats

When discussing development, it is important to remember that humans are complex beings and how they think and behave is influenced by a variety of factors, their stage of development being only one of these factors. Don Beck who researches the development of value systems, talks about a value system being like a musical note while its expression is more like a chord or a melody (1996).
Developmental psychology, while discovering patterns that appear to be cross-cultural, is also an approximation of complex phenomena that may never be fully understood. It is essential that this theory, like all theories be held lightly, with the awareness that even while it offers insights, it is also partial in its understanding. The intention is not to box or limit people to a particular stage, but to support their liberation by understanding where they are and meeting them there in a way that can support growth and transformation. Additionally, as Cook-Greuter (2013) notes, these models and their stages are idealizations of how adults develop. The actual lived and embodied expressions of these developmental stages are different from the idealizations.

A foundational developmental ethic is that later levels are not intrinsically better than earlier levels, nor is someone a better person just for having a more complex meaning system. There are unique capacities that emerge with later stages that may be more adequate for addressing the complexity of a particular context. However, it is essential to recognize that every stage of development and the variety of ways that people express these, has critical contributions and unique perspective to offer society. For instance, understanding more nuanced complexity can add insight, but it can also get in the way of more practical and expedient action. Another example is the unique support that rule-oriented collectives can offer people in times of stress or breakdown. Every stage also has both strengths and “stage-specific vulnerabilities and new forms of unhealthy expression” (Cook-Greuter, 2013, p. 17). All stages of development are inherently valuable and worthy of respect and care. Additionally, the unfolding of developmental perspectives is not predictably evident along the lines of age, gender, nationality, or affluence.

Developmental research finds that there is stability to the stage of development that a person assesses at, which is called their ‘center of gravity’ by some practitioners and researchers. It can also take a number of years to move from one stage to another. However, research also shows that development isn’t fixed, meaning that different contexts evoke different expressions of the self, and that we are likely to move up and down the developmental spiral throughout any one day. For instance, how one behaves with their family of origin, their spouse, an esteemed colleague or a trusted friend can evoke different developmental capacities, as can being more relaxed or more stressed. Under stress, we often revert to developmentally earlier patterns of thought and strategies of behavior that reflect less complex ways of interpreting our reality (Torbert, 2004; Livesay, 2013). In addition, our development can also be uneven, in the sense that we can be more developed cognitively, than emotionally, or kinesthetically. In other words, developmental capacities and their expression through a unique person is a complex, and varied phenomena, and at the same time there are recognizable patterns to these expressions, that develop in relatively consistent ways.

**STAGES Model**

The STAGES model is an adult developmental framework and assessment methodology developed by Terri O’Fallon. Built on the lineage of Loevinger and Cook-Greuter, STAGES identifies underlying repeating patterns (or parameters) in development and adds two additional later-level stages to current models. It “reveals a natural sequence of deep ‘vertical’ structures, as well as iterating, wave-like patterns of development” (O’Fallon, 2018). Loevinger’s 1976 ego development model was built on the work of Erik Erickson (1963) and was based on research using the Washington University Sentence Completion Test, one of the most widely utilized and
researched developmental assessments (Loevinger, 1976). Susanne Cook-Greuter then refined the sentence-completion test instrument as well as the level descriptions, adding the distinction of perspectives and two later level stages to Loevinger’s work (Cook-Greuter, 2013).

Stages of human development are typically identified by interviewing or observing samples of people, recording their responses, and organizing these responses into categories. Researchers then sort these categories into a sequence of developmental stages. The STAGES model defines underlying patterns or parameters for describing developmental stages, rather than only using categories. The model and the research validating it, suggests that these patterns are fundamental attributes that lead to development in the first place.

STAGES defines three primary patterns that shift as people transit the stages. The first is on the objects of awareness. The question asked is “What kind of object is arising in awareness: a concrete object (family, car, work, rules, interior and exterior senses); a subtle object (metacognition, ideas, abstract theories, goals, contexts, systems, awareness); or a MetAware object (awareness of awareness, immanence, sea of manifestation)? Each of these: concrete, subtle, and MetAware – represent the three major tiers of development, each with 4 stages. The second pattern is the Individual/Collective polarity. The question asked is, “Is the emphasis on individuals (all about “me”) or collectives (all about “we”)? This pattern iterates twice in a tier. The third pattern refers to the four learning styles. The question is: Is the experience or meaning-making orientation receptive, active, reciprocal, or interpenetrative? With the third pattern, development unfolds through 4 learning styles in each tier: passive-individual (Receptive), active-individual (Active), passive-collective (Reciprocal), active-collective (Interpenetrative). These patterns and the associated stages of development are illustrated in Figure 1 (below).

These patterns define the three tiers, each with two major shifts in perspective-taking (1st person, 2nd person, etc.), and each of the person perspectives with one shift in the learning style (receptive, active, reciprocal, or interpenetrative), for a total of 12 stages across three tiers. The stages are numbered for their person perspective-taking capacities (1.0 and 1.5 referring to early and late first-person perspective, 2.0 and 2.5 referring to early and late second person perspective, etc.). The STAGES assessment has been statistically grounded (with a high level of reproducibility) to correlate with the SCTi-MAP, the most widely used and researched assessment tool of adult human development (O’Fallon, 2016).

In the first-person perspective, one is in a concrete ‘I’ stage. In the STAGES model, these are the receptive 1.0 Impulsive and active 1.5 Opportunist stages. In these stages, it is ‘all about me’ and there is no understanding yet of a ‘We’. One can see others but does not have a truly unique identity separate from others, nor does one see others as unique in their own right. The focus is on one’s concrete needs and wants.

The second person perspective stages foreground the concrete ‘We’. These stages are the reciprocal 2.0 Rule-oriented and interpenetrative 2.5 Conformist stages. In the second person perspective, one sees that others see them and that, in order to satisfy their needs, they must work with others and make and follow rules together. In these ‘We’ stages, the ‘I’ is present and understood, but backgrounded, or deprioritized, in favor of relationships and groups.
Students in the 2.5 Conformist stage view the teacher as the ultimate authority. They expect and need highly structured learning environments to either conform to or rebel against. They want to know what the rules are. They are challenged to speak up individually in class except to get the answer to a question right. They struggle to think outside of the collective norms or to do group work. Individual feedback can be very threatening, and they are not likely to challenge the teacher directly. In following learning traditions, they value clear hierarchy. Status, appearance, material goods, reputation and prestige are also valued.

**Description of the Person Perspectives and Implications for Teaching and Learning**

The next stage represents a shift from the concrete to the subtle tier. The third person perspective gives rise to subtle ‘I’ stages, where a person realizes they have a subtle self – the thoughts, emotions, and independent mind of rational consciousness. It includes the receptive 3.0 Expert and active 3.5 Achiever stages. This is an I-oriented space again, but the ‘we’ is present and backgrounded. The ‘We’ that is present, however, is the concrete collective; groups and their norms and rituals, since no new subtle ‘We’ has yet been discovered. The ‘I’ that is formed is a new, subtle self, not identified with the body and concrete appearances, but with the thinking and
feeling mind. This is a significant developmental shift and can be very disorienting in an individual’s life and as a result takes time to stabilize. Although the shift into the subtle tier can occur in late high school or early college for some, others can live much of their adult life in this developmental stage, as is true of the late concrete stages and all of the subtle stages. Research suggests that a majority of adult in North America are between the 3.0 Expert and 3.5 Achiever stages. However, it appears that an increasing number of adults in Western European and North American contexts are moving into later subtle stages including 4.0 Pluralist.

Students at the 3.0 Expert stage of development tend to be black and white thinkers and are likely to dismiss feedback from anyone not considered to be an expert in their field. They are awash in new ideas of their own, independent from the groups they identify with but have a hard time prioritizing their ideas. This is a receptive stage, and so the individual is receptive to the newly arising subtle self or ego. They have a hard time reflecting on or thinking about their own thoughts and feelings, and may struggle with self-direction, time management, and completing assignments on time. This stage of development often emerges in late high school and early college students, although many adults in the Western world can live their whole lives in this stage of development. Authority and expertise are very important to this stage of development, as is an individual emphasis on figuring things out, and determining the ‘right’ and best way to do things.

3.5 Achiever students are actively goal-oriented, think in either/or terms, are more single-system, and results-oriented, and are establishing their skills and capacities as self-directed learners. Achiever learners accept feedback and will collaborate with others if it helps them to achieve a goal. They reflect on and evaluate theirs and others thinking to advance efficiency and value logical and objective processes to achieve results. They aren’t yet aware of their own and others subjectivity, nor that working harder will not necessarily yield the expected outcomes. The developmental capacities of this stage include independent objective thought, self-direction with an internal locus of control, and a sense of agency with goals and a future plan. These reflect the conventional goals of college education in Western European countries:

Achiever is the target stage for much of Western culture. Our educational systems are geared towards producing adults with the mental capacity and emotional self-reliance of the Achiever stage, that is, rationally competent and independent adults. (Cook-Greuter, 2013, p. 40)

However, this expectation in higher education has more recently shifted to a post-conventional, post-modern or pluralistic expectation with the critical deconstructive perspectives of the next stage of development.

In the shift to the fourth person perspective, the subtle ‘We’ is foregrounded. The subtle collective consists of the perception of one being situated in and arising out of a plurality of contexts. This includes the receptive 4.0 Pluralist and active 4.5 Strategist stages. The ‘We’ isn’t then a specific group, but it is a space of subtle ideas and systemic complexity. It consists not only of outer manifestations, such as the physical environment, the systems in which the context is embedded, the cultural context and form, but also inner manifestations, such as the attitudes, beliefs, assumptions, states of awareness, and ontological dispositions of the collective.
Students at 4.0 Pluralist are likely to be interested in their own authenticity separate from society’s expectations, seek creative and unique approaches to their work, are aware of social contexts (their own and others), want to hear everyone’s voices including faculty’s’, welcome feedback to discover their authentic selves, and may be strident about their pluralism and other socially critical ideologies. These students are both/and thinkers and recognize the subjectivity of objective perspectives.

Strategist 4.5 students tend to be more complex systemic and paradoxical thinkers and are aware of and passionate about their own and others’ transformation and development. They are action-oriented, interested in taking multiple perspectives, may be impatient with excessive sharing and processing, and may be critical of a mentor or program that is in their own eyes, not transformative enough. They can step outside of systems and contexts and see how they have the capacity to shape contexts and systems, and thus are no longer subject to the experience of being created by contexts and systems. They also begin to see that the subtle things they see in others, are also within themselves. This capacity to recognize projection is the mature or later part of the Strategist stage.

The next stage involves a transition from the subtle, to the MetAware tier. This a big leap developmentally and can take time to stabilize in someone’s life. At the fifth person perspective, individuals awaken to their ever-present awareness beyond the ordinary, subtle self, as the ground of their own being. This is awareness no longer identified with the concrete and subtle selves, or what we might conventionally refer to as the personal ego. Individuals in these stages begin to identify with this being as a new self, which is both empty and full, transcendent and immanent. In these stages including the receptive 5.0 Construct Aware and active 5.5 Transpersonal, the ‘I’ is foregrounded but the subtle ‘We’ remains as a context for this I. The ‘I’ is however not what we conventionally think of as ‘I’ – our concrete bodily self or our subtle thinking or narrative self, but rather our causal self, the limitless open horizon of awareness that we paradoxically seem to share with everyone and everything.

5.0 Construct Aware and 5.5 Transpersonal students are aware of the constructed and developmental nature of perspective taking, and they are flexible and adaptive in their communication and actions. Their thinking, which may be perceived as complex, includes both paradoxical and one-within-another ways of thinking. They may source their way of doing and being from a transpersonal experience of encountering a “vibrant and alive” world. These students may not feel seen or understood, and because of the relative rarity of these stages, it is less likely that there would be other students or faculty with similar developmental capacities (Cook-Greuter, 2013; O’Fallon, 2016).

At the sixth person perspective, this new ‘I’ is again backgrounded as it lets go into a much larger, MetAware ‘We.’ In the sixth level stages (6.0 Kosmic and 6.5 Illumined), the ‘We’ is all of concrete, subtle, and causal manifestation itself, the Kosmos, the utterly full and empty existence, eternal and beyond time, infinite and beyond space. Here individuals experience themselves as this whole, with their apparent (even causal) ‘I’ birthed by and birthing the whole. There is a keen interest at the sixth level in living as this larger collective, which has its own sense of ‘We’, and in allowing the intelligence of the whole, and that which births the whole, to express one's existence (Fitch, 2016; Lynam, Fitch, & O’Fallon, 2020).
In addition to learning more about the developmental patterns of students, educators are also actively constructing meaning of their experiences and viewing their identities as educators and their student’s development through their own developmental lens. Developmental patterns around the identity of educators and their related practices and behaviors will be examined in greater depth in subsequent sections. However, it is important to remember that understanding development is also a subjective process, as we are always bringing our own meaning-making to the phenomena. You might pause in your reading and consider, how I am perceiving this material and how might my perceptions be shaped by my own developmental lens? The next section reviews literature on adult learning and adult development.

**Literature on Adult Learning and Adult Development**

The research at the intersection between adult development and adult learning has predominantly made use of Kegan’s subject-object developmental model, and to a lesser extent the ego development and action-logics frameworks (Cook-Greuter 1999, 2004; Kegan 1982, 1994; Torbert 2004, 2013). The research is focused in a few main areas: teacher development or preparation particularly for K-12 educators and school leaders (e.g., Garvey Berger, 2002; Hammerman, 2002; Hasegawa, 2004), and the application of a developmental lens to examine the impact on students’ development or the learning outcomes in a particular learning context, or curriculum (Guilleaux, 2011; Harris, 2002; McCallum, 2008). I found only one study reported by Drago-Severson that examined the impact of learning about adult development itself (2012).

Levine (1980) used adult development theory to assess the personal and professional development of teachers in an elementary school. More recently, Helsing et al. (2008) argued for that a developmental perspective can improve professional development for educators. Sutton et al. (1996) used the constructive developmental framework of Belenky et al. (1997) to understand the epistemological beliefs of beginning teachers. They suggest that an understanding of adult development would likely improve such education.

Garvey Berger (2002) looked at the link between teacher belief and practice. She examined the way twelve novice teachers understood and believed they had enacted their experience of the Harvard Teacher Education Program (HTEP). Berger’s findings suggest that teachers with different developmentally-related capacities vary in their abilities to withstand the socializing forces of their school contexts. Moreover, developmental capacity predicted transference of learning from the HTEP into their classrooms, as well as the likelihood of finding or creating communities of practice with their colleagues.

Hammerman (2002) researched how math teachers’ meaning-making affected their ability to apply their learning from a professional development institute to their teaching. Hammerman described the epistemological demands made on experienced teachers by curricular and pedagogical innovations in mathematics education and found a strong link between the stage of development of the educator and how well they were able to integrate and work effectively with constructivist pedagogical reforms. Hammerman found that Kegan’s self-authoring stage (3.5 Achiever to 4.0 Pluralist stage) was the minimum stage of development needed to effectively learn and ultimately practice the concepts of constructivist thinking implicit in the pedagogical reforms.
Drago-Severson (2004a) investigated how development influences what principals need to sustain their learning from professional development and to support the development of educators in their schools. She examined how a particular head of school “exercised her leadership on behalf of promoting adult growth. How does this head understand and experience her role? What are the attitudes, beliefs, and values that appear to govern her actions? How are her ideas translated into action?” (2004a, p. 80). Drago-Severson’s study reinforced the usefulness of adult development theory as a research tool.

Guilleaux (2011) also studied the development of principals. He found that introducing adult development theory as a frame for leadership development supported students’ learning. It gave them a language to assess themselves, articulate their learning, and determine their learning goals for becoming principals.

Hasagewa (2004) examined the way teachers’ developmental stages affected the way they experienced the shift into a teacher leader role. She found that the more mature the complexity of meaning-making was, the easier it was for the teacher to shift into taking more leadership responsibilities.

In addition to teacher and school leadership development, adult development theory has also been used to examine adult and post-secondary student experiences of curriculum and how development influences learning needs and outcomes. A number of recent studies (Harris, 2002; McCallum, 2008; Nicolaides, 2008) all point to meaning-making as a significant influence on what and how students learn, and the developmental supports they might need for their learning to be more effective, successful, or transformative.

Harris (2002) found that students at earlier stages of development were less likely to experience transformative learning than those at later stages. She made the point that transformation can happen at all levels of development; however, course design might preference transformation at a particular level (4.0 Pluralist) and often the later stages (4.0 Pluralist / 4.5 Strategist). She also found that a student’s developmental stage influenced the nature of the support they required and their use of particular learning strategies.

McCallum (2008) explored the relationship between participants’ stages of adult development and their learning experience in a Group Relations Conference. His research found that the participants’ stages of development account in part, for their capacities to learn from their experiences in this particular learning context. He also found that participants' developmental maturity affected how quickly they were able to recover from behavioral regression brought on by the complexity and conflict they experienced in the learning process.

Nicolaides (2008) looked at the relationship between adult development and how someone experiences and describes ambiguity or uncertainty. She found distinct forms of meaning-making in the participants’ relationships with ambiguity. The Pluralist inquired into ambiguity, the Strategist learned their way through ambiguity, and the Construct Aware surrendered to ambiguity. Finally, the Ironist (an ego development stage which includes Transpersonal) generated ambiguity in order to discover the creative potential that it promises.
The research on adult development and adult and transformative learning demonstrates the significant implications of understanding developmental differences in meaning-making, and the corresponding learning support and challenges needed at different developmental stages. The following section reports on developmental research including data on the developmental diversity of students and faculty in higher education, as well as research on the impact of introducing faculty and students in graduate education to a developmental perspective.

**Developmental Research in Higher Education**

Three different areas of research are reported on in this section. The first is aggregate data from stage assessments in different higher education contexts. The second reports on developmental patterns in meaning making about education and the identity of educators. The third shares the findings from doctoral research that sought to understand more about how development shapes teaching, mentorship, and learning needs, and how learning about one’s own and faculty/student development in graduate education impacted the educators and the students developmentally, personally, and professionally.

**Developmental Data on Faculty and Students**

Although limited in sample size, research on ego development suggests that the developmental range of undergraduates is generally 2.5 Conformist through 4.0 Pluralist. Research conducted on two cohorts of students in an upper division (junior and seniors) undergraduate program in sustainability (n=20) found that the developmental range was from 3.0 Expert through 4.0 Pluralist, with the majority of students assessing at 3.5 Achiever and with a lesser number of 4.0 Pluralist and 3.0 Expert on either side of the majority (Lynam & O’Fallon, 2017). Other data sets in undergraduate education find a similar distribution with the majority assessing at 3.5 Achiever. See table 2 below.

Research conducted in PhD programs (n=40) found a developmental range from 3.5 Achiever through 5.5 Transpersonal, with the majority of students falling at 4.5 Strategist (Lynam, 2018). The majority of this sample is self-selected and therefore is likely to be later developmentally than if more students were included. Research with PhD faculty (n=10) found a range from 3.5 to 5.5 with a majority at 4.0 Pluralist (Lynam, 2014).

This data is significant in a number of ways. One is that the learning needs and learning styles of students is significantly different at these different stages of development. Based on the data and my observations of students, it is common to have a span of at least three developmental stages within a cohort or community of learners. The perspective-taking capacities, meaning making, and learning needs of students differ significantly across the stages. This presents opportunities and challenges for designing curriculum, assessments, and adapting teaching styles to address the developmental diversity.

The meaning that students make of their learning and the topic of study will be significantly different across developmental stages. Understanding these distinctions can help educators adapt curriculum and scaffold the learning. For instance, recognizing that development shapes one’s capacities for critical reflection and systems thinking can help educators adapt accordingly.
Finally, the data shows that the developmental span of students in graduate education can be wider than the developmental span of faculty, meaning that some students are developmentally later than their faculty. This presents some unique challenges which will be addressed later in the article. The following section presents findings on how meaning-making and the identity of educators is different for each of the developmental stages.

Table 2. Comparison of percentage stage distribution in 6 different samples (Cook-Greuter, 2013; O’Fallon, 2018; Lynam, 2018; Thomas, 2018).

<table>
<thead>
<tr>
<th>Developmental Stage</th>
<th>Conformist</th>
<th>Expert</th>
<th>Achiever</th>
<th>Pluralist</th>
<th>Strategist</th>
<th>Construct Aware</th>
<th>Transpersonal</th>
<th>Universal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaders, UK, pre 2000 Torbert &amp; Cook-Greuter</td>
<td>1.7</td>
<td>21.1</td>
<td>33.5</td>
<td>23.4</td>
<td>13.5</td>
<td>5.6</td>
<td>.09</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Leaders USA, pre 2000 Torbert &amp; Cook-Greuter</td>
<td>8.2</td>
<td>47.8</td>
<td>34.8</td>
<td>5.0</td>
<td>1.4</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>.05</td>
</tr>
<tr>
<td>Mixed adult population, USA, 1999Cook-Greuter</td>
<td>4.3</td>
<td>11.3</td>
<td>36.5</td>
<td>11.3</td>
<td>4.9</td>
<td>1.5</td>
<td>.05</td>
<td>.05</td>
</tr>
<tr>
<td>Upper-division Undergraduate students, 2018 Lynam</td>
<td>4</td>
<td>11</td>
<td>5</td>
<td>5</td>
<td>18</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Graduate students (self-selected), 2018, Lynam</td>
<td>9</td>
<td>6</td>
<td>33</td>
<td>7</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Undergraduates, State University, 2018, Thomas</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Research on Meaning Making about Education and the Identity of Educators

Based on the responses of educators who took a STAGES developmental assessment focused on education, it is striking to notice the developmental differences in meaning making around education and the identity of educators. Table 3 presents direct quotes of how individuals responded to sentence stems about education and what they consider to be a good educator.

Table 3. Select responses to the sentence stems: Education… and A good educator… (O’Fallon & Lynam, 2018).

<table>
<thead>
<tr>
<th>Developmental Stage</th>
<th>Meaning Making about Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5 Conformist</td>
<td>Education…to maintain the past and respect tradition, by being good, disciplined and following the rules you have a guaranteed place in society.</td>
</tr>
</tbody>
</table>
3.0 Expert

Education… to assure the future. Become an expert on something so that you can be of service to society and build useful things.

Education… is very important to me and is the key to success.

3.5 Achiever

Education… is the lifeblood of society, as we learn we grow and enhance our ability to achieve our dreams and desires.

Education… is the key to propelling our society forward.

Education… is incredible! I have a constant thirst to keep learning new things. I'm finally learning to view success in terms of my own self-developed goals, rather than what the teacher thinks about me or what the grade says.

A good educator...(1) understands his/her students and their needs; (2) values and respects every student in the classroom; (3) delivers information at a level that the student can absorb; (4) is deeply knowledgeable in the subject he/she teaches.

4.0 Pluralist

Education… is intrinsically satisfying. For me, true education is less about facts (though valuable) and more about discovering the great principles of what life is about.

Education… enables freedom and choice in our modern society; but there are many disadvantaged groups that do not have access to education; it seems important that education be available for everyone.

Education…, the system I work within, is being reimagined and transformed as a learner-centered and dialogical process.

A good educator… is a good listener, adaptive, curious, experienced, humble, well-read, forward and past thinking, able to consider different possibilities, and willing and able to connect with students where they are intellectually and developmentally.

4.5 Strategist

Education… Is vital, the more people are aware of what is happening in the world, how our actions impact others, the environment, etc., the more likely we can continue to expand the understanding that we are all interconnected and our life is dependent on how we treat the Earth and its inhabitants.

Education… is a critical aspect of our development (in all its forms, institutional campuses and from "life") and only really ends when you've made the grave mistake of assuming you "understand it all".

A good educator… offers students developmentally appropriate challenges, support to meet those challenges, and a container in which to explore their developing capacities; is fundamentally changed by the act of teaching.

A good educator… joins self, subject, and students in the fabric of life because they teach from an integral and undivided self; they manifest in their own lives and evoke in their students, a "capacity for connectedness."

5.0 Construct Aware

Education… comes divinely with every moment -- be it emotional, conceptual, spiritual, extraterrestrial….. I want to receive with the humor and grace that open me beyond my current understanding.

Education… is every moment when we are awake to this Life; we're only not learning when we're lost in our self-repeating loop of the thoughts we've thought a million times before.

A good educator… exists on a myriad of levels, each educator has a particularity that by the very fact of itself communicates something that is received every second of our lives; the most "effective" educators see this
about themselves, his or her particularity, and embraces it with love and, in turn, the particularities of each student, and some educators see themselves as beyond the boundary of good/bad/effective/ineffective—that there is something beyond any conceivable curriculum that is happening here.

In the examples of responses of educators to the sentence stems there is a developmental progression from seeing education as a way to maintain the past (2.5 Conformist), to assuring the future and a key to success (3.0 Expert), to a way to achieve goals that are internally referenced (3.5 Achiever) and to teach in a way that delivers information and recognizes the value of each student. At 4.0 Pluralist education becomes more about freedom, authenticity, and is learner centered, and at 4.5 Strategist education starts to take into consideration the interconnection of multiple system including the Earth and its inhabitants, and is developmentally responsive, creating containers for development. At 5.0 Construct Aware the meaning of education shifts yet again to move beyond the bounds of what it typically considered education to include moment to moment experience and being awake to life. Evident in this developmental progression is the widening of circles of identity, responsibility, and care, all of which translates into different approaches to the process of teaching and learning.

Research on the Impact of Learning about Development

Doctoral research I conducted in 2014 sought to understand how development shapes teaching, mentorship, and learning needs, and how learning about one’s own and faculty/student development in graduate education impacted the educators and the students. It explored a number of questions including: How does learning about development, one’s own and others’, impact students and faculty in higher education, developmentally, personally, and professionally? How does development shape teaching, mentoring, and learning needs? How might learning about development effect student’s relationships with faculty and vice versa? What happens when the developmental range of students is wider than the faculty’s? The research addressed gaps in the literature of adult and transformative learning, concerning the role that ego development (Cook-Greuter, 2013; Torbert, 2013; O’Fallon, 2016) plays in perspectives and practices around teaching, mentorship, and curriculum design. The research examined the impacts of introducing ego development to faculty and students in a post-secondary program in sustainability education and leadership development. It also examined the relationships between stage development and student’s experience of the curriculum, teaching, and mentoring.

The site of study was a Ph.D. program in Sustainability Education, and the participants included four faculty and seven students. The study was mixed-methods and included pre and post semi-structured interviews; a five-month action inquiry process involving reading, reflective writing, and group discussion; and a pre and post developmental assessment and debrief through the use of the SCTi-MAP and STAGES assessment (Lynam, 2014).

Findings

Within the sample of students, there was a developmental diversity that ranged from 3.5 Achiever through 5.5 Transpersonal. The faculty’s development ranged from 3.5 Achiever through 4.5 Strategist. Each developmental stage has unique capacities, strengths, challenges,
and needs as learners/educators. Additionally, whether an individual is newly emerging into a stage or exiting their present stage of development, also informs the kind of mentoring that is likely to better support them.

The findings demonstrated that learning about adult development was transformative developmentally, personally, and professionally for both students and faculty. The research suggested that integrating a developmental awareness into post-secondary education may support transformative learning and growth across the developmental diversity in a community of learners. It may also support the development of the educators themselves and their skill development for working well with diverse groups of learners.

**Learning about Adult Development**

To support learning about development, the participants took a developmental assessment, received an hour-long developmental debrief, participated in a 5-month action inquiry process including a workshop about adult development, readings, reflections, and dialogue with other participants in their constituent groups (students or faculty). Regarding the developmental impact of the study, six of the eleven participants assessed at a later developmental stage in their second assessment, two participants’ assessments showed more than one full stage of developmental growth, and two participants assessed at half to one stage earlier developmentally. Regarding the personal impacts, all participants described some positive impact (eight out the eleven describe significant impact) in their personal lives including greater self-awareness and self-knowledge; increased compassion, understanding, and acceptance of differences with others; communicating in ways that are developmentally responsive and aware; and more careful listening. In their professional lives, all participants described positive impact, and seven out of eleven described significant professional impact. These included that learning about development influenced their research design and analysis, mentorship, communication, teaching, and curriculum design.

**Developmental Awareness and Transformative Impact**

There were significant developmental differences in how students described their learning and transformation in the program and how faculty talked about their approaches to teaching and mentoring. The findings suggest that applying a developmental perspective to the teaching, mentorship, and curriculum design in a post-secondary program may deepen the transformative impact.

The student participants assessed at 3.5 Achiever and 4.0 Pluralist described the program as significantly transformative; however, the 3.5 Achiever participant spoke of challenges in maintaining some of the learning with increasing distance from the program. Participants assessed at 4.5 Strategist did not describe as much transformation and were critical of aspects of the program and the mentoring they received. 5.0 Construct Aware and 5.5 Transpersonal students spoke of transformation, but only partially as a result of the teaching, mentorship, or program design. The students also shared that thinking about their faculty developmentally supported more reciprocal relationships and helped them to understand their experiences with faculty in new ways.
In addition, faculties’ developmental stages were shown to influence how they teach, mentor, orient to the program’s focus on sustainability, and design learning experiences. Faculty assessed at 3.5 Achiever and 4.0 Pluralist were more likely to promote a particular worldview or values development and may be less likely to understand or effectively meet their students’ developmental needs. 4.5 Strategist faculty have greater capacities to understand and perceive their students’ development and therefore are more likely to mentor in developmentally responsive ways. Learning about the developmental range of the students was eye opening for faculty. It helped them to consider how to meet the students’ developmental needs, and to grapple with the disorienting dilemma of working with students who are later developmentally than the faculty. Interestingly, I observed that the faculty often had an intuitive sense of which students might be later developmentally, as they had recognized in these students an increased capacity to engage with complexity. Learning about development helped them to make sense of this intuitive recognition in a way that added insight and understanding for how to work more effectively with these students (Lynam, 2014).

Teaching and Learning Developmentally

Developmentally aware and informed teaching and mentorship works in multiple directions at once. Understanding how adults develop supports educators to design curriculum and mentor in ways that meet students where they are developmentally and support their next steps. It illustrates and values the diverse ways in which students make meaning, and their perspectives and practices with regard to the content or focus of learning. It can also inform the self-awareness and development of the educators and leaders themselves, as well as inform ways of working more effectively with the developmental diversity within a learning community (Cook-Greuter, 2013; Drago-Severson, 2004; Kegan, 1982; Torbert, 2013; O’Fallon, 2010, 2016).

According to O’Fallon, without an understanding of their own development, educators may be more likely to project their own developmental needs onto students, teaching ‘who they are’, rather than who is in front of them. This can include teaching for a particular developmental transformation which would only be appropriate for a some of the students. Understanding the developmental process also supports educators to engage in their own development, once they have a sense of where they are and what might be next in their developmental unfolding (O’Fallon, 2010).

The research demonstrated that there are significant developmental dimensions to teaching, mentoring, and learning. Students have different needs developmentally. By learning how to identify and meet these distinct needs, educators can more effectively support student success. Developmentally aware mentoring can also support the development of faculty. In turn, this suggests the importance of engaging in developmentally informed professional development that encourages listening for and integrating student’s psychological development in program design, mentoring, and curriculum.
Practical and Research-based Insights for Developmentally Informed Teaching

A first step is recognizing that adults develop through stages of meaning-making and perspective taking in ways that are relatively consistent and reliable. This is relevant for understanding the developmental diversity that is likely to be present in a community of learners, for recognizing the developmental needs of particular students, and how to design learning experiences to address the varying development needs.

Identifying a student’s stage of development can predict that which they can comprehend, attend to, and accept responsibility for, and that which they are likely to find interesting, worthy of exploration, and learning. Identifying a stage of development can also predict the type of “holding environment” that will facilitate further learning and development. This can include the setting, the types of relationships, and the set of support services and systems that will provide a secure foundation for further exploration (Kegan cited in Boyer, 2005, p. 782).

Understanding developmental patterns is also helpful in considering one’s own development as an educator and how this might shape teaching styles and habits.

Perspective-Taking and Thinking Patterns

As was reviewed earlier, perspective-taking is a central pattern of the developmental process. Kegan examines the subject-object move at the center of constructive development theory; that when someone is subject to something, it has them rather than them having it. In other words, they are not able to see whatever the “it” is (for example one’s beliefs or internalized sense of privilege) and therefore cannot yet work consciously with it or change it. However, once we see our own beliefs or values for instance, we can reflect on them and even change them. With ego development and the STAGES model, perspective-taking capacity expands throughout the stages from first through sixth person perspectives and beyond. Perspective-taking shapes thinking patterns and thereby the teaching and learning process.

In review, in the STAGES model there are three tiers of development, concrete, subtle, and MetAware, where the objects of awareness change from concrete objects (what you can perceive with your interior and exterior senses, and simple emotions, rules, etc.), to subtle objects (metacognition, ideas, abstract theories, goals, feelings, contexts, systems, etc.), to MetAware objects (awareness of awareness). Within each tier there are 2 person perspectives, for instance 1st and 2nd person for the concrete tier, 3rd and 4th person perspective for the subtle tier. Each person perspective has two stages, an entry level stage such as 3.0 Expert and a late exit level stage such as 3.5 Achiever for third person perspective. And finally, each of the 4 stages within a tier represents a learning style which are receptive, active, reciprocal, and interpenetrative or integrative.

To explore the relevance of these patterns to education, we will examine the developmental shift between the 2nd, 3rd, and 4th person perspectives. Individuals at the 2nd person perspective recognize that there are other human beings with feelings and thoughts of their own. They see that they have a separate self (concretely) and that others can see them. In order to satisfy their
needs, they recognize that they must work with others to make and follow rules together. With the development of the 3rd person perspective, a subtle self arises which means the individual begins to perceive a world of subtle objects such as thoughts and feelings, plans, and abstract ideas. At the early part of the 3rd person perspective, 3.0 Expert, the individual can ‘see’ the collectives that they are a part of, but they are receptive or subject to their own thinking. In other words, thinking about thinking, evaluating thinking, or thinking reflectively is rudimentary at this stage. It isn’t until the late 3rd person perspective of 3.5 Achiever that an ability to observe one’s thoughts and think reflectively becomes more fully developed. When someone is subject or receptive to their subtle thoughts and feelings, their thinking is one-sided. At the 3.5 Achiever stage the individual is able to consider their views in light of others but is still inclined to pick the view they prefer, in what is often called either/or thinking.

An example of the difference between either/or and both/and thinking was demonstrated by a class of freshman and sophomores learning about globalization. The students were learning about the concept of global citizenship. I asked them to consider the value and importance of global citizenship in today’s increasingly global world. Many of the students said that they couldn’t be global citizens because that would cancel out or threaten/undermine their national citizenship. They were perceiving the issue through either a one-sided or either/or frame of thinking.

After much discussion, one student in the class had an ‘aha’ moment where he recognized that he could be both a global citizen and a national citizen and that each could potentially complement or be used in service of the other. It appeared that his (and some of his classmates who agreed) thinking had shifted from seeing the two as opposing or contradictory, to both/and complementary.

Reflective and critical thinking is a goal of undergraduate education; however, it is particularly challenging for students at the 3.0 Expert stage of development common among early undergraduates. Students operating from this stage of development may be prolific at generating new ideas but will have a hard time reflecting on and evaluating their own thinking, nor see the purpose of doing so. Critical reflection becomes easier at the 3.5 Achiever stage of development, especially if it is clearly tied to goals and outcomes. Self-reflection can be a developmental overstretch for 3.0 Expert students, but a developmentally appropriate stretch for 3.5 Achiever students.

Another common goal of postmodern higher education is social deconstruction and critique. This capacity isn’t naturally available until the context-aware capacities of a 4th person perspective. It is at 4.0 Pluralist that individuals recognize the subjectivity of thinking and how thoughts are shaped by internal and external contexts such as family, culture, gender, and other intersecting identities. At this stage, which is also a collective stage with a reciprocal learning style, 4.0 Pluralist thinking becomes both/and. Individuals here see that thoughts are shaped by contexts, and that we can understand (and deconstruct) a particular view or value by understanding the systems that shaped it.

Reflective thinking, systems thinking, and the ability to recognize subjectivity are all developmental capacities. Recognizing this helps educators develop and scaffold learning
activities to support the progression of these capacities in a group of developmentally diverse learners. Conversely, expecting outcomes that are beyond a student’s developmental capacity puts them in over their heads and might be experienced as an over-stretch. It is important to understand the developmental supports that different students might need and integrate these into the design of curriculum. It is equally important to be attentive to the epistemological demands and assumptions that classes make on students and to recognize that if a student cannot engage successfully in an activity, it might be because it is beyond the capacities of their current way of making meaning (Cook-Greuter, 2006; Drago-Severson, 2004a, 2004b; Kegan 1982, 1994; O’Fallon, 2016).

Perspective taking and the related thinking patterns are illustrated in Table 4.

Table 4. Patterns of Thinking (Cook-Greuter, 2004; O’Fallon, 2016).

<table>
<thead>
<tr>
<th>Developmental Stage</th>
<th>Perspective-Taking and Polarity Patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5 Conformist</td>
<td>Late 2\textsuperscript{nd} person perspective: In relationship with another. “See others seeing them” concretely. Concerned about socially expected behavior, approval, avoids conflict, loyalty to chosen group. Wants to belong. One right way thinking. Can’t question group norms. Uses hierarchical thinking to distinguish between levels of morality and appropriateness (good better best)</td>
</tr>
<tr>
<td>3.0 Expert</td>
<td>Early 3\textsuperscript{rd} person perspective: Stands back and observes two others interacting and ‘objectively sees what is happening’ on a subtle interior level. Beginning recognition of one’s own ideas separate from social groups. Interested in expertise, procedure, and efficiency; what’s logical. Has a hard time prioritizing ideas because they are all good. Black or White thinking; knows the answer and only sees one side of an argument. Tends towards perfectionism.</td>
</tr>
<tr>
<td>3.5 Achiever</td>
<td>Late 3\textsuperscript{rd} person perspective: Interested in rational scientific analysis, success within a system, thinking about thinking. Prioritizes ideas for effectiveness and goal-oriented results. Either/or thinking. Tends to talk at, rather than with. Critical reflective thinking is useful to for being more effective completing tasks and achieving goals.</td>
</tr>
<tr>
<td>4.0 Pluralist</td>
<td>Early 4\textsuperscript{th} person perspective: Stands back and sees that the observer is situated in a social context, and therefore subjective. Can see others seeing them on a subtle level: Reciprocal. Knows others can see things in them that they can’t see in themselves and has the courage to delve into what others may see, even if they don’t like what they hear. Has a hard time prioritizing contexts – relativism. Both/and, it depends thinking. Metacognition.</td>
</tr>
<tr>
<td>4.5 Strategist</td>
<td>Late 4\textsuperscript{th} person perspective: Understands and prioritizes interior and exterior contexts, sees developmental unfolding, shapes contexts to support development of self and others. Works with dynamic systems and paradox, linking theory and practice. Sees that what they judge in others is held within themselves – Interpenetrative, one within the other, paradoxical thinking.</td>
</tr>
</tbody>
</table>
Another example of developmental progression that is relevant for curriculum design is how feedback is perceived through the stages of development. As can be seen in Table 5, in the earlier stages (Expert, 3.0 and earlier), feedback can be experienced as threatening and may only be accepted from those considered to be an authority in the community or field of study. Student-to-student and collective feedback and assessment processes can be threatening and not very effective at the 2.5 Conformist and 3.0 Expert stages of development.

Table 5. Stages and Patterns in Relation to Receiving Feedback (Cook-Greuter, 2004; O’Fallon, 2016).

<table>
<thead>
<tr>
<th>Developmental Stage</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5 Conformist</td>
<td>Receive feedback as disapproval, or as a reminder of norms. Deflect feedback that threatens loss of face. Unable to give feedback to others. Cannot question group norms.</td>
</tr>
<tr>
<td>3.0 Expert</td>
<td>May take it personally, defend own position; dismiss feedback from those who are not seen as experts in the same field</td>
</tr>
<tr>
<td>3.5 Achiever</td>
<td>Accept feedback especially if it helps them to achieve their goals and to improve</td>
</tr>
<tr>
<td>4.0 Pluralist</td>
<td>Welcome feedback as necessary for self-knowledge and to uncover hidden aspects of their own behavior, to discover their authentic self</td>
</tr>
<tr>
<td>4.5 Strategist</td>
<td>Invite feedback for self-actualization; conflict seen as an inevitable aspect of viable and multiple relationships</td>
</tr>
<tr>
<td>5.0 Construct Aware</td>
<td>View feedback (loops) as a natural part of living systems; essential for learning and change; and take it with a grain of salt.</td>
</tr>
</tbody>
</table>

Learning and Teaching Styles

In the STAGES model, each tier of development has four learning styles, one for each of the stages in the tier. These also translate into teaching styles and habits. In the subtle tier, most relevant to higher education, the first stage 3.0 Expert is a receptive stage, where the individual is receptive to the subtle self or ego, the realm of ideas, thoughts, feelings, abstractions, and plans. As the individual gets to know the contours of this new dimension of self, they are receptive to
these new capacities, and not yet able to direct and focus them. An example of this is students that produce large volumes of work, but have a hard time reflecting on the work, or prioritizing their ideas and deciding which might be relevant to the intended outcomes. Also, there are perfectionistic tendencies at 3.0 Expert, and so students can have a hard time completing something or deciding that it is good enough.

At the next stage of 3.5 Achiever, they learn to be active with subtle ideas, thoughts, and feelings, resulting in prioritization and focus for more effective outcomes. However, both the 3.0 Expert and 3.5 Achiever are individually oriented stages, not yet reciprocal with these capacities, and therefore they tend to engage in one way talking, or to talk at someone rather than with.

In terms of teaching styles, someone at the 3.0 Expert stage values expertise and highly refined knowledge in their area of expertise. Teaching is likely to be in the form of direct information delivery without much interaction, a traditional ‘sage on the stage’ approach. At the Achiever stage, it is still generally a one-way approach with an emphasis on best practices, outcome-based learning, and assessments. However, there is a greater likelihood to include some active and applied project-based learning and sometimes self-directed and self-paced learning (Lynam & O’Fallon, 2017).

4.0 Pluralist is a collective-oriented stage that is reciprocal with their subtle capacities and awareness, and so teaching becomes learning, with more of a ‘guide on the side’ mentoring approach. There is a shift towards collaborative and non-hierarchal learning environments, which are often student-centered and dialogical. The shift towards student-centered learning environments can lead to faculty (especially in higher education) backgrounding their own expertise and direct teaching, so much so that it can potentially hamper or limit students’ learning. This can also come as a request from the students, particularly in graduate school, that want to be reciprocal and more like peers with faculty.

4.5 Strategist is an integrative, one within the other approach, that integrates outcome and process, teacher and student, self-direction and teacher-direction. At the Strategist stage, there is an inherent recognition of the developmental process and an interest in identifying principles of transformative learning and creating contexts or containers for development (Lynam & O’Fallon, 2017; O’Fallon & Barta, 2018).

Recognizing these learning/teaching style tendencies, educators can attend to including all 4 of the learning styles in their curriculum, as well as noticing what their own tendencies are and adjusting for any imbalances. Just as noticing the developmental patterns of students can support compassion, understanding, and effectiveness, noticing the same with teaching colleagues can also support an increased understanding and ease of working together. There are often ideological conflicts between these different teaching approaches (outcome based versus process-oriented, teacher centered versus student centered, individual rather than collaborative learning, etc.), and understanding how development contributes to these differences can help reduce tension, and potentially increase collaboration or recognition of the relative merits and limitations of each (Lynam & O’Fallon, 2017; O’Fallon 2016).
Developmental Teaching Principles and Practices

The first principle is recognizing that there is developmental diversity in a community of learners, and as was mentioned previously, there is often a span of 2 or 3 developmental stages. Understanding the likely developmental span can make a big difference for designing learning experiences. One thing that can help is to pay attention to the developmental outliers in a group, on either end of the developmental diversity of the group. Those earlier developmentally may need additional support and those on the later end may need more challenges – support in a different form.

It also helps to listen for different thinking patterns and help to translate student’s comments so that they are more likely to hear each other and to help integrate the different perspectives into a larger whole. If there is a student struggling with a learning exercise, or you find them hard to understand, it can be helpful to consider where they might be developmentally and how the learning or instruction can be adapted to meet their developmental needs. For instance, in a group of graduate students...

The second principle is to consider whether a student is entering a new stage, needing to stabilize new capacities, or ready to exit a stage and needs help reaching for what is next. When someone is ready to move into the next stage, they often reject or push against where they just came from developmentally and can be frustrated by or judgmental of others’ views from the previous developmental stage. It is also important to provide additional support when students are shifting from one tier to another, such as the shift from 2.5 Conformist to 3.0 Expert, or the shift from 4.5 Strategist to 5.0 Construct Aware. These are big shifts that can be very disorienting and take time to stabilize in people’s lives.

The shift from an early part of a person perspective to the late part, such as from 4.0 to 4.5, is much easier than the shift into a new person perspective. Berger (2004) recommended three important steps to effective developmental teaching: “helping students recognize the edge of...
their meaning-making; being good company at the edge; and helping to build a firm ground in a new place” (p. 346).

A third principle is for educators to pay attention to their own development and how it might shape teaching styles, as well as one’s view of students. To support this, educators can take a developmental assessment to learn more about their own development. Educators can also inquire into how development shapes teaching styles. Are they teaching to their own developmental edges, rather than the students? Do they tend to teach who they are, rather than who is in front of them? In the STAGES model, there are iterative patterns between the tiers, and so for instance 3.0 Expert has some similar patterns to 5.0 Construct Aware, as does 3.5 Achiever, with 5.5 Transpersonal. The similarities can make teaching others in the same stage in the prior tier easier. Conversely teaching students one stage prior to where you are developmentally, or one stage earlier in the prior tier, can be challenging. This is because of the tendency to push away from the previous stage in an effort to differentiate, as was mentioned previously. It is important to notice these challenges and work to correct for them.

A fourth principle is to work with developmental shadows (unintegrated parts of the self) and the blind spots of each stage. Challenging or even traumatic events in one’s own life, can make one susceptible to triggers and shadow with students at the same stages. Doing shadow work on these areas can have a tremendous impact in teaching and support educator’s development as well. In addition to working with a therapist, counsellor, or developmentally informed coach, educators can start to notice what they struggle with. They can identify some of their trigger points or sensitivities with students or colleagues, and then reflect on how they might also have these tendencies or behaviors in themselves. They can also consider where these triggers or sensitivities might have come from in their childhood. When an educator has a strong judgement of a student they can ask, how is this quality also in them? Or whether they allow themselves to express something a student is expressing, and therefore find themselves struggling to tolerate it? In addition to an educator’s own unconscious and unhealed shadow, each of the developmental stages has both gifts and blind spots. By recognizing some of the limitations of each stage, we can work to minimize the impact these might have on students. For example, 3.0 Expert can emphasize one right way thinking, while 3.5 Achiever can pursue goals and outcomes in ways that can overstretch others or create unachievable expectations. Individuals at 4.0 Pluralist can promote values of inclusion that exclude those that don’t yet hold those values and 4.5 Strategist can create formidable expectations for development in their passion to transform others.

A fifth principle calls for developmental humility and practicing developmental ethics. Developmental ethics preclude not preferencing or idealizing later stages. Teaching is not aimed at driving development, so much as aiming to meet someone where they are developmentally and support them on their growing edges. Developmental growth does not necessarily imply goodness, efficacy, balance, or health. Ethical practice also calls for continued personal development work to uncover blind spots or shadow that may express hidden agendas in practice.
Finally, the sixth and perhaps most important principle of all is to approach teaching and mentoring with the reverence it deserves. Developing unconditional regard for students (and fellow educators) is likely to have a greater impact on the teaching/learning and thereby developmental process, than any other practice or stance. Teaching developmentally is paradoxical in that by understanding where someone is developmentally, means not putting them in a box or ranking them in a hierarchy of values. Rather, it means having profound respect for another’s life journey, including their inherent dignity and value while endeavoring to offer a balance of support and challenge for who they are becoming. Held this way, adult development research and practice can truly act as a spectrum of compassion, supporting the liberation of self and others through the teaching, learning, and mentoring process.

Conclusion

As our world experiences social polarization and ecological breakdown, developmentally informed teaching can support increased capacities for perspective-taking, bridging differences, and increased awareness of implicit bias and blind spots. It also has the potential to catalyze widening of circles of identity, responsibility, and action in the world by evocatively supporting development rather than pressuring growth. It can help educators embrace their students, themselves, and their colleagues with developmental understanding and compassion, and create conditions for further development.

In the research exploring the impact of learning about adult development, educators described greater self-understanding and self-acceptance, increased understanding of others, improved communication and relationship dynamics, and a deeper understanding of working with differences. They also described that learning about development influenced how they approach mentoring, teaching, and supervising, curriculum and project design, their understanding of different cultural and professional contexts (Lynam, 2014).

More research is needed to further understand how to teach developmentally, what the impact of developmentally informed teaching is, how taking developmental assessments impacts teachers and students, etc. However, initial research and anecdotes from educators indicate the powerful potential of teaching and mentoring in these ways. A faculty member in higher education describes the impact of learning about adult development in a way that illustrates the principles and ethics of developmentally informed teaching and learning:

Learning that people – students, clients, oneself, etc. – orient, view, and operate in different ways, itself, isn’t too magical. What is incredibly impactful is the recognition that adult developmental frameworks (a) describe and organize these various ways in a manner that richly dignifies people for who they are now, (b) can predict, indicate, and graciously mark the growth trajectories of who people are becoming, and (c) offer educators life-affirming containers to facilitate students to more fully and freely step into their leading-edge possibilities – a massive hop past empowerment! (Almond, D., 2020, personal communication)
References


Appendix: STAGES Education Chart by Abigail Lynam and Terri O’Fallon

Patterns of Development

- Receptive/Active/Reciprocal/Interpenetrative
- Concrete/Subtle/MetaAware
- Individual/Collective
- Person Perspective (1st, 2nd, 3rd, 4th, etc.)

Learning Styles

- Receptive – Teach, Define, Lecture, Instruct
- Active – Experience, Apply
- Reciprocal – Interact and explore
- Interpenetrative – Synthesize, integrate & live it

Principles of Developmentally-aware Education

- Meet learners where they are, and support them on their growing edges
- Recognize developmental diversity in a collective of learners
- Learn to design curriculum that is developmentally inclusive and adaptive
- Understand how your own development as an educator informs and shapes how you teach and learn
- Understand the importance of recognizing when a learner is stabilizing their development or ready for transformation

Person Perspectives

- The first person perspective is an exclusive one way focus on one’s self and wants.
- The second person perspective is a focus on reciprocity between self and other. Can see one’s desires and those of others. Can stand in the shoes of another.
- The third person perspective is a focus on an observer who can focus on self and other(s). Aware of the qualities of abstract and formal operational thinking – analysis. New subtle self arises.
- The fourth person perspective is awareness on the reciprocal seeing of subtle selves: I see you see me, subtly. Aware of social contexts, internally and externally. Subtle self matures.
- The fifth person perspective is seeing the ever-changing nature of reality and the illusion of something remaining ever the same; Thus at the fifth person perspective there is an awareness of constructs – that everything is made up.
- The sixth person perspective, seeing the multiple perspectives, begins to step outside of those perspectives and to see the whole arising. The whole that is in their consciousness is all of matter, all of life and all of mind. Awareness of the unity of opposites including a grain of sand and the entire cosmos.
<table>
<thead>
<tr>
<th>Qualities</th>
<th>Learner</th>
<th>Exercises/Activities</th>
<th>Questions/Reflections</th>
</tr>
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<tbody>
<tr>
<td>Concrete, Collective Interpenetrative (approx. 14-18 yrs. &amp; adults) You are me and I am you concretely.</td>
<td>Views teacher as the ultimate authority. Expects and needs highly structured learning environment to either conform to or rebel against. Wants to know the rules. Challenged to speak up individually in class, to think outside of the collective norms or to do group work. Right and wrong answers to questions. Individual feedback can be very threatening. Is likely to not challenge the teacher directly. Follow learning traditions. Value clear hierarchy. Status, appearance, material goods, reputation and prestige are valued.</td>
<td>– Topical discussion groups (not open-ended) – Clearly structured learning activities – Right and wrong answers – Concrete skill development – planning and prioritizing – building something tangible, designing an experiment and the steps to complete it.</td>
<td></td>
</tr>
<tr>
<td>– I am the rules, I am my role</td>
<td>– Focus on belonging. Defend group from inside and outside threats.</td>
<td>–</td>
<td></td>
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<tr>
<td>– Prioritize rules and social norms.</td>
<td>– Conflict is seen as a threat to belonging.</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>– Focus on belonging. Defend group from inside and outside threats.</td>
<td>– Time frame: today and the past. Learn from the past, see consequences of actions.</td>
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<tr>
<td>– Collective emotions such as guilt and shame are motivators.</td>
<td>– Concrete skill development – planning and prioritizing – building something tangible, designing an experiment and the steps to complete it.</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>– Routine, order and following the rules creates safety.</td>
<td>–</td>
<td>–</td>
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<tr>
<td>– Shadow – fundamentalism, righteousness</td>
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2.5 Conformist

**Focus or Meaning of Education**

To maintain the past and respect tradition, by being good, disciplined and following the rules you have a guaranteed place in society.

**Transition**

Transition into the Subtle tier – 3 parameter change – catalytic. Often happens when people go away to college or leave home for the first time. Move from a concrete, collective, and integrated stage to one that is Subtle, individual, and receptive.

My group is not necessarily all there is, or all that is important - support individuals to stand out on own and find new collectives. Think critically and independently. Notice how facts might contradict group norms. Visualize subtle objects – subtle ideas, the future, abstract thinking.

**Stretch**

- Visualize a plan for the future.
- Think critically & independently
- Rational analysis of subtle ideas
- Abstract thinking
- Freewriting and brainstorming
- Assertiveness training
- Recognition for initiative-taking
<table>
<thead>
<tr>
<th>Qualities</th>
<th>Learner</th>
<th>Exercises/Activities</th>
<th>Questions/Reflections</th>
</tr>
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</table>
| **Subtle, Individual, Receptive**  
New identity (often early college years) | This is a time of significant change and transformation. Often occurs when individuals go away to college or leave home for the first time. Can be overwhelmed by flood of ideas, thoughts and feelings. There is a loss of previous group identities and group norms that defined appropriate behavior and how to fit in. Can struggle to complete assignments, wants to be valued for their own thinking and ideas but can’t yet prioritize, time management is challenging. Can be one way in their thinking, as they are only just beginning to be able to think about their thinking. Linking disparate ideas through systems thinking is very challenging. Needs the teacher to be an expert in their field. Can lose respect or struggle with more “collaborative” teaching or pluralistic ways of seeing. | Feedback only from trusted experts  
Group work – can tend to take over, may not be a good team player, micromanage others  
Abstract thinking – science of probabilities, architecture, engineering  
Brainstorming – individual ideas and perspectives  
Observation of thinking and social norms, behaviors – new ways of thinking and behaving  
Debates | |
| **Stretch**              | Focusing their attention on thinking, planning for the future.  
Reflection – thinking about thoughts and feelings  
Consider more than one side of an issue (see both sides)  
Structured and directed group work  
Prioritizing ideas.  
Time management tools  
Interpersonal skill training  
Critical thinking & decision making | |

| Transition              | One parameter change. Pressured by complexity – time, resource limits, 100% perfectionism becomes too inefficient. There is a greater sense of linear time of past and future and therefore can work with subtle cause and effect (can figure out reasons or “why”, can analyze). Beginning to prioritize ideas, to make use of and act with all the new ideas and ways of seeing – set goals and plan for the future. Concentration practices are helpful – focusing attention, prioritizing ideas, creating plans. Reflection and self-reflection. Discern when a project or assignment is complete or good enough. | | |
3.5 Achiever

**Subtle, Active, Individual**

- Identity fixes.
- Focused attention (zooming in on goals)
- One way seeing – subtle parallel play, agree to disagree. Either/or-choice. Leads to competition.
- Future-oriented
- Science is the new magic/cause effect truth
- Individualize the collective thru laws to protect individual rights (patents, brands)
- Beta brain wave matures
- Mastery and power in the subtle world of ideas
- Concern for human rights
- Thinking about thinking and feeling; planning, analysis becomes ordinary.

**Meaning of Education**

**Education**… “is the lifeblood of society, as we learn we grow and enhance our ability to achieve our dreams and desires.”

**Education**… “is incredible! I have a constant thirst to keep learning new things. I’m finally learning to view success in terms of my own self-developed goals, rather than what the teacher thinks about me or what the grade says.”

**Exercises/Activities**

- Setting, planning and achieving goals
- Giving and receiving feedback in support of goals
- Outcome-oriented educational goals
- Assessment and evaluation
- Project management with benchmarks and feedback loops
- Reflection – thinking about thinking and feeling
- Deductive Reasoning
- Create linear, goal-oriented systems
- Concentration practices. Mindfulness exercises
- Student-directed learning activities
- Debates
- Self-directed learning

**Questions/Reflections**

**Stretch:**

- Reconsider goal focus to achieve more balance, overall happiness, time for family and friends etc.
- Begin to think contextually – both/and, it depends, discussions.
- See the non-linear pathway to goals, or unexpected outcomes positive and/or negative
- Subjective and objective thinking
- Collaborative and reciprocal group work

Two parameter change – Collective and Reciprocal. Key Achiever assumption: There is a real truth out there to be discovered so I can be the master of my fate through my own initiative. Begins to discover the way the Achiever’s expectations are not accomplished. Beginning need to think “outside the box” – challenge assumptions, expectations. Burned out, seeks balance, inner fulfillment. Begin to be aware of multiple perspectives/voices/ways of seeing and being, that can be contextually dependent. Awareness of multiple inner voices that might have conflicting needs and interests.
Qualities | Learner | Exercises/Activities | Questions/Reflections
--- | --- | --- | ---
**Subtle, Collective, Reciprocal,** I see you see me, subtly
- Relativism “it depends”, pluralism
- Both/and thinking: Subjective and objective
- Attention: Open awareness, mindfulness.
- External contexts – socio-economic/cultural/ethnicity identities – affect internal interpretations
- Reality is socially constructed
- Adaptive patterns in systems (like a bird in a flock)
- Multiple interior voices – “a part of me wants this, a part of me wants that”
- Welcomes feedback for authenticity
- Egalitarian; All ways are equally valid
- Not inclined to categorize, reject hierarchies
- All thoughts and beliefs are equal, except those that profess inequality

**Learner:** Pluralist learners seek reciprocity with other students and the teacher. They value opportunities to explore contextual awareness (inner and outer) and likely want the teacher to join them in that – to step down from the hierarchy and engage in mutual learning and discussion.

**Meaning of Education**

**Education**… is intrinsically satisfying. For me, true education is less about facts (though valuable) and more about discovering the great principles of what life is about.

**Education**… enables freedom and choice in our modern society; but there are many disadvantaged groups that do not have access to education; it seems important that education be available for everyone.

**Education**… is a life-long process. It can be formal, through schooling and learning events, and it can be informal in the lessons learned each day.

**Education**, the system I work within, is being reimagined and transformed as a learner-centered and dialogical process.

- Integrating multiple perspectives and contextual thinking into all content areas
- Dialogical learning – discussion groups
- Self-reflection exercises
- Empathy, perspective-taking and shadow exercises
- Cultural awareness/ responsiveness training
- Recognize more subtle forms of – isms. Micro-aggressions.
- Student-centered and student-directed learning
- Teacher or faculty as mentor

**Stretch**

- Prioritizing contexts
- Awareness and attention exercises – zooming in and out
- Valuing and integrating technical expertise of 3.0, goal and outcome focus of 3.5, alongside their own co-creativity and adaptability.
- Multi-generational timeframe
- Explore polarities and divergent ways of thinking and perceiving the world.

One parameter change – Reciprocal to Interpenetrative. Key Pluralist assumption: Everything is relative. Dilemma: Overwhelmed or stuck in processes. Confronted by chaos/disorder (in mind). Need for lasting tangible results. Exhausted by cost of caring. Begins to see that some contexts are more useful than others and begins to categorize them. Begin to see ways of prioritizing internal and external contexts – see development over time. See the possibility for development and transformative change and how to play a role in the creation of it.
### 4.5 Strategist

<table>
<thead>
<tr>
<th>Qualities</th>
<th>Learner</th>
<th>Exercises/Activities</th>
<th>Questions/Reflections</th>
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</thead>
<tbody>
<tr>
<td>Subtle, Collective. Interpenetrative, Integrated. I see you are me, Subtly</td>
<td><strong>Learners:</strong> Relatively rare even in graduate school settings. Strategists are able to prioritize among competing commitments, opinions and beliefs. Thus, they tend to value perspectives that are developmental, people oriented, inclusive of other levels of development, dynamic, and which foster continuous learning. This is an interpenetrative stage, so they take a view outside of systems and contexts and see their intersections, and so have the capacity to construct them as opposed to being constructed by them. Love to create transformative learning experiences for others, so may want to take over as the teacher.</td>
<td>Generally self-directed as learners, they value opportunities to guide their own learning, dive deep into different content areas and to dialogue with teachers and fellow students in depth to find newly creative ways to address complex challenges</td>
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<td></td>
<td><strong>Meaning of Education</strong></td>
<td>Shadow exercises – opportunities to reflect on and work with projections and judgements</td>
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<td><strong>Education…</strong> is essential for improving ourselves and the world. I think our current education system is pretty broken. I want to see an education system that facilitates growth and teaches people how to learn and think, not regurgitate information and take tests. I want to see more embodied education.</td>
<td>Learn about nested systems and increasing complexity, experiment working across value systems and worldviews.</td>
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<td><strong>Education…</strong> is vital, the more people are aware of what is happening in the world, how our actions impact others, the environment, etc, the more likely we can continue to expand the understanding that we are all interconnected and our life is dependent on how we treat the Earth and its inhabitants.</td>
<td>Seek feedback from multiple sources, personal growth practices</td>
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<td><strong>Education…</strong> is a critical aspect of our development (in all its forms, institutional campuses and from &quot;life&quot;) and only really ends when you've made the grave mistake of assuming you &quot;understand it all&quot;.</td>
<td>Recognize judgements in the moment.</td>
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<td></td>
<td><strong>Stretch</strong></td>
<td>See constructed nature of reality – emptiness of constructs</td>
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<tr>
<td></td>
<td></td>
<td>See their own subtle ego at play – hubris of knowing and hunger for transformation of self and other</td>
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### Transition

Three parameter change – MetAware, Individual, Receptive, – this is a big change and can take years to complete. Key Strategist assumption: Through my own development, I can be the unique, authentic person I’m meant to be. Tired of endless striving and reaching to become myself. Increasing capacity to witness puts me in the moment and leads to seeing the mind’s projections/constructions in the moment.
### Qualities

<table>
<thead>
<tr>
<th>MetAware, Receptive, Individual</th>
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<tbody>
<tr>
<td><strong>Meaning of Education</strong></td>
</tr>
<tr>
<td><strong>Education</strong>…comes divinely with every moment -- be it emotional, conceptual, spiritual, extraterrestrial.... I want to receive with the humor and grace that open me beyond my current understanding.</td>
</tr>
<tr>
<td><strong>Education</strong>…is every moment when we are awake to this Life; we're only not learning when we're lost in our self-repeating loop of the thoughts we've thought a million times before.</td>
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<th>Exercises/Activities</th>
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<tr>
<td>– May want to do the teaching themselves – tire of being taught</td>
</tr>
<tr>
<td>– Beginning awareness of awareness</td>
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<tr>
<td>– See mind’s constructions of definitions and boundaries</td>
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- **Stretch**
  - See the subtle ego at play
  - See others seeing you at the MetAware stage – reciprocally causal
  - Prioritize constructs

### Questions/Reflections

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<th>Transition</th>
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<tr>
<td>One parameter change – MetAware, Individual, Active. Begin to actively engage constructs. Key Construct Aware assumption: reality is constructed by made-up definitions of words and boundaries. Dilemma: constructions are continuing to be reified by others who don’t realize it. Some constructions are more useful to the world than others. I can construct consciously with my knowledge of amorphous definitions and boundaries, for the benefit of the world, categorize and prioritize, create in my area of passion.</td>
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</table>
### Qualities

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<th>MetAware, Active, Individual</th>
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<tr>
<td>Capacities to bend, twist, redefine, construct, reconstruct, prioritize/ categorize and reify constructions, and to see unusual connections between very disparate paradigmatic fields occur. This is an active individual stage, interest in owning creative and unusual constructions in their field of passion that they have developed. Transpersonal individuals “have” their individual constructs rather than being “had by” them. They can see how they can develop these constructions consciously for their own benefit as well as for the benefit of humanity or for a planetary cause. There is one-way seeing at the MetAware level, frequently with a feeling that others can’t see them in return.</td>
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</table>

### Learner

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<tr>
<th>Meaning of Education:</th>
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<tr>
<td><strong>Education</strong>...is often thought of as a structured learning process, yet I find it to be quite the opposite also, that is being open to the nothingness and allowing the empty to fill oneself, allowing a movement from a place beyond knowledge.</td>
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| Education...grows exponentially as one opens one’s mind to ever more possibilities, understands preconceived limitations of the concept of mind and actively dismantles them to allow even more unlimited awarenesses to arise, breaking down contents into processes that then become the new contents with processes behind them until whole concepts and constructions of world and mind fall away completely. |

### Exercises/Activities

- Witnessing in the moment in waking life is a natural spiritual practice.
- Integrate emptiness and fullness, individual & collective

### Questions/Reflections

- **Stretch**
  - Late Transpersonal begins to let go of their constructions into emptiness

### Transition

| Two parameter change – MetAware, Collective, Reciprocal. - Key transpersonal assumption: As reality is constructed, I can impact the world by defining its terms, questions, and perspectives, and constructing with Awareness and Consciousness. Dilemma: My impact is also a reified construction. Tired of endless complex mind bending. Seeing that which is doing the constructing, I can let go into another more universal ‘I’ in which all preferences can coexist. Emerging desire for a simpler, more immediate contact with the Wholeness of Existence. |

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The Scenic Route: A Developmental Approach Emphasizes the Importance of Human Interiority in Transformative Approaches to Climate Change

Gail Hochachka¹

Abstract: What is effective climate change adaptation, at a time in history where the call for transformative change is on the increase? This article considers how to expand and deepen the largely techno-managerial concept of adaptation, often framed as that of reacting to and accommodating climate change, by integrating human interiority in a more balanced way. While the psychological and social dimensions of the climate change issue have been studied, they are less equally weighted alongside the climate science; some studies suggest that improving the integration of psycho-social change processes will be important for effective adaptation and may bode helpful in enacting transformative change. In this article, I explain my rationale and methods for including the lesser-known discipline of adult developmental psychology to examine how people make meaning of climate change, which may have important implications for adaptation policy and practice. Studies exist on ‘what’ people believe about climate change, but the insights from developmental psychology help to explain ‘why’ meaning is organized as it is. Explaining what understandings people hold is akin to the shortest distance between two points, but considering why meaning was construed as such is the scenic route. I argue that ‘taking the scenic route’ to consider the perspective-taking processes that produce such a spectrum of views on climate change may hold potential for a more comprehensive response to such a complex issue, not only to grasp why these meanings differ so vastly, but also to support improved collaboration and to help engage in adaptation as transformation.

Keywords: Adaptation, adult development, climate change, human dimensions, meaning-making, transformation.

Introduction

Climate change is a dominant global issue today, and policy-makers place an acute focus on how society can effectively adapt to new climatic conditions. Approaches for adaptation remain largely techno-managerial, reactive and instrumental, such as, building sea walls, promoting new forms of agricultural production, or genetically selecting new climate impact-resistant varieties. While important, such approaches can miss the structural and psycho-social dimensions of

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climate change, and have been found to be incommensurate with the full complexity of the issue (Ensor et al., 2019; O’Brien, 2016; Ziervogel et al., 2016). In recognition that effective adaptation may involve a more comprehensive change agenda, and as a way to more fully and adequately understand and respond to this complex issue, my research seeks to uncover the lesser emphasized psycho-social, or “interior,” aspects in our response to climate change – such as meaning-making, cognition, culture, and consciousness. Research into this interiority exists and is increasing, and yet it remains unevenly weighted alongside other scientific studies on climate change (Doherty and Clayton, 2011; Gifford, 2011; Overland and Sovacool, 2020). Balancing these contributions, better integrating the existing studies on the interior dimensions of climate change adaptation, and further empirical research on how interiority matters, is an important area of study (Brink and Wamsler, 2019). This is because, in so doing, it may provide a more comprehensive and commensurate approach, and thus a more effective and sustainable response.

I have been studying and doing research into the interior dimensions of climate change for three years. This research is grounded in studies with coffee production stakeholders across a global value chain, extending from growers in the isolated highlands of Guatemala, to exporters and buyers in Guatemala City, to executives in retail headquarters in the United States. In this paper I will give an overview of these studies, preliminary conclusions, and future plans.

The expressions of “interiority” that I focus on in my research include: 1) the stages of meaning-making people hold about climate change as studied in developmental psychology, 2) the interpersonal processes that we might need to collaborate more effectively across this range of meanings within layered, complex contexts, and 3) the ways in which the definition and engagement of adaptation can be broadened and deepened so as to be transformative. Here, dissimilar to incremental change, transformative change includes significant changes in form, structure, and/or meaning making (Leichenko and O’Brien, 2019; O’Brien, 2018). This present article addresses the first of those, with possible implications for the second and third.

To date, the plasticity of climate change meanings has been noted and various studies have looked into what people actually understand by the term. Many of these studies focus on beliefs and climate literacy, some have investigated indigenous views, others have carried out values-based segmentation studies (Brace and Geoghegan, 2011; Graham et al., 2014; Roser-Renouf et al., 2009). Fewer studies have looked into why and how people come to understand climate change the way they do. Within that, some have used qualitative, critical methods to understand climate knowledges as a product of people’s experiences with place (Clifford and Travis, 2018), while others have examined worldviews in relation to climate change as ideal-types (de Witt, 2015). Other studies have sought to find relationships between cultural identity and political outlook, such as in Kahan’s (2011) cultural cognition theory. This work has looked into the “identity-protective” cognition and how groups on either extremes of the hierarchical-individualist or egalitarian-communitarian may reject or dismiss information that challenges their deeply held beliefs (Maibach et al., 2011; Roser-Renouf et al., 2009; van der Linden, 2016). Critiques of that work find that it gets caught in a tautological loop (where political ideology is defined as culture and culture as political ideology) and conflates worldviews, culture and values

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2 A term used in sociology to refer to the ‘pure’ attributes that are common to most cases of a given phenomenon, as put forth by Max Weber (Aronovitch, 2012).
in an unhelpful way. Van der Linden (2016) distinguishes between worldviews as unique compared to values and culture in that they are situation-invariant “orienting mechanisms” (i.e. as lens of perception) (p. 4). I suggest that these orienting mechanisms are important to examine on their own terms, untangled from their relation to values and culture, to help disclose why meaning is organized as it is and how such lenses of perception change over time. It is in this respect that developmental psychology might be very useful.

Rather than going directly to what people understand about climate change, this article ‘takes the scenic route’ of why meaning was made as it was. Developmental psychology turns attention to the cognitive processing through which a person is construing meaning, ‘slowing down the journey’ of this inquiry to ‘meander through’ the many perspectives that have had to be coordinated to come up with someone’s present understanding of climate change. Aside from some theoretical papers or empirical studies in an associated area (such as sustainability or leadership), there are no studies I am aware of that have delved empirically into what a developmental perspective could offer the climate change field. Adult developmental theories map empirically validated phases of maturation in the complexity, depth, and nuance with which an individual makes meaning of the world, including the types of perspectives that they can take on self, others, and reality. Applied to climate change, developmental capacity is a significant factor for (1) leaders and decision-makers at local, state/province, national and even international levels; leaders of religious and community groups; leaders in business; activists; educators; and engineers – i.e. those crafting or implementing responses to the climate change threat; and (2) citizens and consumers – i.e. those whom leaders and decision-makers are trying to satisfy and influence. Overly simplistic, black-and-white, ideological, ethnocentric/nationalistic, or short-sighted views of climate change in either of these stakeholder groups will severely limit society's ability to address it. Understanding these limiting perspectives more deeply is a first step in moving beyond them; a task for which developmental psychology may bode useful. I suggest that ‘taking the scenic route’ to consider these perspective-taking processes that produce such a spectrum of views on climate change may hold potential for a more comprehensive response to such a complex issue, and may also help to engage with adaptation as (a form or process of) transformation.

Adaptation, as defined by the IPCC (2014, p. 5), is “the process of adjustment to actual or expected climate and its effects.” Ensor et al. (2019, p. 228) refer to “mainstream adaptation approaches” as those that proceed from certain assumptions that in turn constrain practices for dealing with, and surviving in, a changing climate, often precipitating an over-emphasis on reactive, incremental and techno-managerial adaptation (Ziervogel et al., 2016), i.e. “to reduce climate-related risks to things we value” (Dow et al., 2013, p. 305), but often inadequately engaging changes in social arrangements (O’Brien, 2018). Transformation, on the other hand, is defined as, “a change in the fundamental attributes of natural and human systems” (IPCC, 2014, p. 5). In my estimation, this refers to broad, profound systems-wide changes to shift our societal trajectory towards thriving with and through climate change to greater degrees of equity and sustainability, possibly even including a post-carbon emissions future and drawing down existing carbon dioxide from the atmosphere to reverse the global warming phenomenon. As such, adaptation and transformation are very different concepts, which can have markedly different objectives. Yet, in the Intergovernmental Panel on Climate Change literature, transformation is considered alongside adaptation (IPCC, 2014, p. 27). Added to this, definitions of the term
‘transformation’ are varied, some ambiguous, often left undefined or used as metaphor (Feola, 2015), and this lack of specificity and clarity may also bode difficult when it comes to application in relation to adaptation.

In this gap, scholars call for different epistemological starting points that comprehend the entangled nature of the climate change issue (Ensor et al., 2019) and holistic approaches are being sought that conceptually bridge or connect adaptation and transformation in a context of climate change (O’Brien, 2012; Pelling, 2011; Pelling et al., 2015). Examples include “integral adaptation” by O’Brien and Hochachka (2010) and O’Brien’s (2018), “Three Spheres of Transformation” heuristic, that describes the Practical, Political and Personal spheres as necessary for a comprehensive shift towards sustainability. The current, conventional definition of transformation tends to miss interiority and reduce it to the Practical sphere, which is easier to measure and quantify (O’Brien, 2018); but then the transformation being sought in turn is constrained to it being a technical problem, rather than an “adaptive challenge” or a transformative social change problem (Heifetz et al., 2009; O’Brien and Selboe, 2015). Further empirical research into specifically how transformative change occurs in the personal sphere, how personal change relates with changes in human systems, and how to better integrate all of these spheres towards an overall sustainability transformation, would be a helpful contribution to this overall inquiry.

In this article, I explain the ways in which I am studying developmental psychology, particularly using the STAGES framework, to better understand human interiority in climate change and to contribute insights into the design of an integral approach to climate adaptation carried out as a transformation to sustainability. What might a deeper understanding of why people construe meaning about climate change as they do tell us about an expanded and deepened practice of adaptation, within a more comprehensive transformative change agenda? In this review article, I focus on the potential I see in including developmental psychology in climate change research, explain my rationale using the STAGES model, my approach and methods on the topic to date, and I also share some preliminary findings along this scenic route of the many perspectives on climate change.

### Literature Review

Climate change is almost unparalleled in its complexity: it is both a biophysically immense phenomenon yet it has profound and direct personal implications; it involves every dimension of human society including powering the very computer you are reading this article on; and it is co-arising alongside and as a result of the societal development that both made this problem as well as our ability to study and solve it. To adequately curb carbon emissions that drive climate change requires us to turn inward and ask ourselves deep and profound questions about our very selves, the nature of change and the choices we are making. Yet, the focus to date has almost necessarily been scientific-materialist: including inquiring into the interlocking global environmental changes that are involved in this global warming, the extensive and varied

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3 The research project, *AdaptationCONNECTS*, which stands for *Combining Old and New kNoweldge to Enable Conscious Transformation to Sustainability*, of which my PhD research is a part, endeavors to examine precisely that question.
feedback loops, the contributing factors, and the ecosystem impacts – all of which are paramount questions to explore – and yet these, along with the political and economic analysis of the climate change phenomena (Giddens, 2011; Stern, 2007), can tend to ignore the key interior, i.e. psychological, developmental, and hermeneutic, factors. Such human dimensions are critically important; such as, mental models, risk-perceptions, strong emotions, denial, compassion fade, contested values, political will, and the glaring fact that it has been human actions underpinned by our values for a particular developmental trajectory that has created the problem in the first place. Understanding the science and removing structural and behavioral barriers for action are essential, but that could be insufficient without also addressing the psychological dimension of this issue (Gifford, 2011).

As much as it is an issue of natural science, climate change is now also characterized as a psychological and social issue (Doherty and Clayton, 2011), and with that has come scholarship exploring the varied, subjective layers at play within it. Research in this area ranges from studies on psychological barriers, or “dragons of inaction” (Gifford, 2011), values, risk perception and communication strategies (Graham et al., 2014; Hine et al., 2014; Leiserowitz, 2006; Maibach et al., 2011), lay-knowledges about climate change (Brace and Geoghegan, 2011; Hulme, 2009; Moloney et al., 2014; Pyhälä et al., 2016), indigenous framings (Rosengren, 2016; Scoville-Simonds, 2018; Vinyeta and Lynn, 2013), psychological distance (Brügger et al., 2015; Spence et al., 2012; Spence and Pidgeon, 2010), emotions (Moser, 2007) and worldviews (De Witt et al., 2016; Hedlund-de Witt, 2013), to name a few of the categories covered. However, scholars also note that this body of work is less visible in climate change discourse (Doherty and Clayton, 2011; Moser, 2007; O’Brien, 2018). While some of this research is present, it is not equally weighted in mainstream academic discourse alongside other scientific studies on climate change. Further studies are needed to move beyond the current biophysical emphasis, and to better understand the role that interiority plays in global environmental change (Esbjorn-Hargens, 2010; O’Brien and Hochachka, 2010; Wamsler, 2018).

In this article, I argue that the developmental aspects of interiority are one of the most fundamental, yet are underrepresented even within the climate change literature focusing on interiors. Climate change is considered both a “wicked problem” (Wilber and Watkins, 2015) and a “hyperobject” (Morton, 2013) due to its expansiveness in space and time, its multidimensionality, and its elusive nature when people try to directly experience or completely understand it; as a result of this, people end up making meaning of climate change in a range of ways (Hochachka, 2019). This has been referred to as the “plasticity” of climate meanings, which in turn produce persistent problems for climate change engagement that have evaded resolution (Hulme, 2009). For example, an implicitly common, albeit much-maligned frame, held by scientists and policy makers is to consider citizens’ knowledge to be wrong, rather than different, sometimes referred to as a “knowledge deficit” (Moloney et al., 2014). This corresponds with a dominant (somewhat contested) approach to raising climate awareness called the “information deficit model” (Moser and Dilling, 2011; Suldovsky, 2017) in which more of the same climate information is provided to society who, for the most part, is assumed to be climate illiterate. Other researchers point to how this ‘incorrect’ understanding about climate change can lead to essentially irrelevant solutions (Wolf and Moser, 2011). These may be true statements, from a certain perspective, but they risk dismissing important epistemologies,

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4 Which in turn is drawn upon by intergovernmental bodies like the IPCC.
understandings and meanings about climate change which may bode locally- and culturally-relevant regardless of being mis-aligned scientifically. As such, this knowledge deficit model doesn’t disclose the whole picture of how meaning is being made about climate change, and privileges that of climate science. A developmental understanding is helpful to make sense of this plasticity of meanings, to let go of the notion that lay knowledges are wrong and instead to see that these are construed by different perspective-taking capacities about a complex, multiple object, and as such ask a different set of questions about how effective engagement might be realized (Hochachka, 2019).

Along with this recognized need for further research on interiority, and within that on developmental psychology, in climate change research, the term “transformation” is increasingly being used in climate change discourse. Although adaptation strategies tend to emphasize accommodating climate change, some scholars point out that successful adaptation will in fact require deliberate, social transformation that critically questions and moves society beyond the structural underpinnings that give rise to the climate change phenomena (O’Brien, 2018, 2016). That the concept of transformation is now part of the IPCC documentation and that it is being called for more frequently in other intergovernmental literature on global environmental issues (IPBES, 2019) is an important step forward for the field. Yet the term, “transformation,” is being used diversely, in some cases vaguely and metaphorically (Feola, 2015) and as such it runs the risk of not being engaged or assessed effectively (Salomaa and Juhola, forthcoming).

The disciplines that are brought to bear in the study of transformation in sustainability cover a broad range, including sustainability science, social science, and social-ecological systems theory. O’Brien (2018) presents a three-spheres heuristic for engaging transformational change in regards to Personal and Practical aspects (i.e. reflecting on values, their alignment with action), and their interface with the Political systems in which change is sought, which is included in the IPCC (2014). But aside of what can be found in that framework, there are few holistic models that detail ways to engage transformation from a personal or psychological perspective within a larger change agenda. Meadows (1999) considered that changing “the mindset or paradigm out of which a system arises” to be among the most powerful leverage points for systems change, yet did not provide an empirical methodology to engage that. Abson et al (2017) emphasized a shift in mindsets (referred to as a “re-think”) as a key part of leveraging sustainability transformation, but without providing pragmatical detail on how such mindsets might shift nor why they seem so difficult to shift. Others have sought to understand the role of worldviews in climate change in relation to sustainability and sustainable lifestyles (Hedlund-de Witt, 2013, 2011), in regards to psycho-cultural transformation in a depth psychology frame (Berzonsky and Moser, 2017), and still others focus on the mindfulness-sustainability nexus (Wamsler and Brink, 2018). Innovation is increasing on “technologies of the self,” to mobilize agency in large-scale systems transformation projects (Manuel-Navarrete, personal communication, Transformations2019 conference). Yet to date, how transformative change occurs in consciousness itself is harder to find in the climate change literature. In other words, there is an increasingly sense that transformation is needed personally and socially – for example, in regards to our paradigms and values – but how such change actually happens is less well represented in the research.
Paradigms don’t shift easily, and getting people to ‘re-think’ can be far more complicated and contested than it may seem; these psychological change dynamics are intricate and understanding them might be well-served by a body of work that specifically has sought to grasp how they work. How do the deeper leverage points of mindsets or paradigms described by Meadows (1999) actually shift? Is there a transformative process involved in Abson et al’s (2017) “re-think”, and if so, what is it? Interesting angles to such questions could be disclosed through a greater representation of developmental psychology in climate change research, with nuances brought to bear on these existing studies to further highlight and catalyze the potential for personal transformation in a larger shift to sustainability. It is one thing to speak generally or metaphorically about psychological or social transformation or ‘paradigm-shifting,’ but adult developmental theories provide a sequence of specific stages or levels, grounded in empirical science, that can help us understand key differences across a range of worldview stages. Without a sense of these developmental stages, climate change scholarship is missing that particular lens on how people perceive, relate to and act on climate change as they mature, grow and change through life.

Developmental psychology concerns itself with precisely that, as it attempts to get to the deeper layer of where change is happening, investigating the ‘deep structures’ or causal mechanisms behind how a person makes-meaning of phenomena through the life-span. Not only is the study of interiors underrepresented, as I said above, but there is even less presence of a developmental psychology perspective in the mainstream-progressive literature on climate change engagement (Hochachka, 2019). To date, studies that have attempted to use developmental psychology in climate change or sustainability in general have presented theoretical ideas, but the empirical studies to date are few and preliminary (De Witt et al., 2016; Divecha and Brown, 2013; Lynam, 2012), and are relatively obscure in climate change knowledge networks. Yet further empirical work on how transformations occur in the personal sphere, as understood in developmental psychology, and how that in turn meshes with transformation in the practical and political spheres, would be helpful for many reasons, not least of which is in how to engage climate adaptation as a comprehensive social transformation (Leichenko and O’Brien, 2019).

To fill this gap, I draw upon the developmental psychology scholarship in one part of my climate change research, specifically using the STAGES model. Below, I briefly describe the STAGES model and my rationale for using it prior to explaining my specific application of it in my climate change study.

The STAGES Model

Developmental psychology considers transformation to have occurred if there has been a shift in the order of complexity from one stage to another, a bit like expanding to an larger doll in a nested set of Russian dolls (Hochachka, 2019). Depending on what facet of consciousness is studied – be it meaning-making (Cook-Greuter, 2013), ego-development (Loevinger, 1966), value systems (Graves, 1970), morality (Kohlberg, 1981), or cognitive complexity (Kegan, 1998)

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5 I use the terms mindset, a worldview, paradigm, and meaning-making consciousness relatively synonymously in this paper.
transformation occurs when the previous stage has been transcended and included into a higher-order of complexity (i.e. a later stage) (Wilber, 2000).

For studying shifts in such complexity, of the developmental assessments available to me, I sought to work with O’Fallon’s STAGES model. The STAGES model is an extension of the work of Cook-Greuter (2000) on post-autonomous levels of development, which in turn is an extension of Loevinger’s (1966) model of “ego development” (also called “leadership maturity”), all of which have high statistical rigor (Murray, 2017). STAGES defines 12 developmental stages across three tiers of increasing maturation and complexity, starting from the very concrete through to the more and more abstract. O’Fallon describes these tiers as the Concrete, Subtle, and Meta-aware (i.e. called ‘Metaware’ in the model), each of which consists of 4 stages.6 The progression is also defined through the increasing perspective-taking capacities that become available to individuals. Therefore, these stages progress through 6 “person perspectives,” each of which has an early (passively-oriented) and late (actively-oriented) phase. Thus, the stages are identified as 1.0, 1.5, 2.0, 2.5...6.5, where the “1.” to “6.” reflect the six person perspectives, and the “.0” and “.5” reflect the early and late phases of each. The stages in each tier have been found in O’Fallon’s empirical research to progress through a sequence of orientations: Receptive (i.e. passive), Active (i.e. agentic), Reciprocal (i.e. relational), and Interpenetrative (i.e. interconnected), which make up one of the logics applied during assessment and scoring. For a detailed description of the STAGES model, see other articles in this journal special issue, and see the Tables 1 and 2 in the Appendix and explained later.

I chose STAGES for various reasons. Other available developmental assessments include Kegan’s Subject-Object interview, Dawson’s Lectica assessment, and Cook-Greuter’s Leadership Development Profile (LDP). Most of these, like the STAGES model, require specialized training to score subject performances, and are thus both more rigorous and more costly than fixed-choice and self-rating psychological assessments. Kegan’s interview takes an hour or more with the research subject; Dawson’s Lectica involves a series of written performances addressing a problem (“dilemma”) which is then later analyzed by her team. Cook-Greuter’s and Torbert's assessments use variations on the Sentence Completion Test (SCT) instrument also used by STAGES. Although each operate slightly differently, it has been suggested that the common dimension most of these systems seek to assess is some aspect of hierarchical complexity, understood as a nested holarchy, using the metaphor of Russian dolls, or matryoshkas (Hochachka, 2019, p. 4).

The Lectica assessments, based on neo-Piagetian theories of Fischer (1980) and Commons (2007) is, like the SCT, a written assessment scored by trained experts. A significant difference in comparison to the SCT is that Lectica uses a dilemma-solving task, whereas the SCT is a “projective” task in which, like a Rorschach ink blot task or a word-association task, the subject is responding freely and (ideally) not trying to produce a best or “correct” answer, and as such allows the text analysis to take a more in-depth look into the psyche of the subject. Also, Lectica tests are thought to focus on variations of “reflective judgment,” an aspect of meaning-making that is more strictly cognitively oriented than the SCT, which measures “ego development,” involving social/emotional skill sets and personality maturity. Kegan's method of the subject-

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6 1.0 through 2.5 are in the Concrete tier, 3.0 through 4.5 in the Subtle tier, and 5.0 through 6.5 in the Metaware tier.
object interview is assessing a territory very similar to that of the SCT (i.e. the constructs of “ego development,” “perspective taking skills,” and “meaning-making maturity” are largely overlapping). However, Kegan’s interview-based method is much more labor-intensive to both administer and score, giving the SCT some advantages in the ways I sought to apply it.

Among the SCT alternatives, STAGES has several benefits over the other SCTs (i.e. LDP and, later, the Maturity Assessment Profile (MAP)) for my project. The main advantage is the assessment logic that STAGES operates by. Whereas the LDP/MAP SCT scoring is largely content and exemplar-based, relying heavily on the specific concepts and language used, STAGES is more structure-based, relying on underlying properties of the language productions. In relying on particular content from scoring manuals created over time, as does the LDP/MAP, there could be a risk of bias due to over-dependence on such content (Dawson, 2003). With STAGES, O’Fallon does draw on the robust scoring methods from Cook-Greuter, Loevinger and Torbert (the LDP), but has significantly revised the logic by which it is applied. The logic that guides a STAGES assessment is less about the content (i.e. the text that shows up at specific stages) and more about the structure of the text and its underlying developmental parameters. The STAGES model and scoring are based on these primary parameters:

1. Object of awareness (i.e. concrete, subtle or meta-aware);
2. Receptive, active, reciprocal,, interpenetrative orientation (e.g. “I may be…”; “I plan to…”; “together we might…”); and
3. Individual or collective orientation (e.g. construing meaning through the lens of “I” versus “we”).

As my research sample includes participants across a global value chain, extending from coffee producers in isolated highlands of Guatemala through to exporters and buyers in Guatemala City to executives in retail headquarters in the United States, perhaps more so than other field-researchers, I needed an assessment model that scored deeper than content, given the different cultures in my sample. STAGES in its three-criteria assessment is structured to be able to get at the hierarchical complexity of meaning-making that is operating more deeply than the content used therein.

O’Fallon’s STAGES integrates the insights of Ken Wilber’s (2000) Integral Theory, specifically the quadrants, states and shadow elements. While other models may include some consideration of these, O’Fallon has explicitly included these in a way that supports understanding of, and may clarify aspects in, the process of ego-development. Specifically, her model sheds insight into certain intriguing phenomena in the construction of meaning that are important in climate change research for understanding the entangled dimensions of change processes. For instance, why do people who are able to understand external complex systems not necessarily turn that complex view inward to their own self-understanding? Or, why do individuals at later stages tend to speak with greater wisdom, not derived from perspectival maturity per se, but rather from contemplative insight? Or, how is it that mature, complex-

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7 The AdaptationCONNECTS project, of which my dissertation is a part, includes Integral Theory in its overall design, as one of the analytical frameworks brought to bear on how we construe the research questions, on the methods used, and in the analysis of the study. This congruence was helpful in my selection of STAGES methodology.
thinkers still have instances where earlier, often emotional impulses seem to hijack their entire self-system? Finding a model such as STAGES that accounts for, and can answer such questions, is relevant for my study of how we might more fully understand complexity, collaborate across diverse epistemologies and cultures, deal with strong emotions, and effectively act on climate change.

Additionally, because I am specifically interested to study the later stages of meaning-making and what potentials they might hold for an issue like climate change, I sought a developmental model that extended sufficiently to be able to assess such later stages. The research “lineage” stemming from Loevinger (1960-70s) to Cook-Greuter (80s-90s) to O’Fallon (90s-00s) essentially went further with each researcher into how to assess meaning-making in the later, transpersonal stages. Cook-Greuter extended Loevinger's system by differentiating two stages (which she called Construct Aware and Unitive) within Loevinger's final stage. O'Fallon's research has taken this progression further, differentiating four stages within the same late-stage territory. This additional precision at the later stages is relevant to the climate change field because this issue is characterized as being wicked, hypercomplex, and hard to understand; and it also triggers emotional and identity-centric themes that are difficult for most people to manage. It is possible that climate change is 'unknowable' in an abstract and systematic manner by earlier concrete meaning-making frames, but knowable in concrete terms and impacts. Later stages, however, might offer important insight into how meaning is made of climate change when more of its complexity is able to be perceived and also how to translate that complexity into the meaning-making mode of prior stages.

Finally, the STAGES model has additional key features not found in the other SCT models. Because it does not rely on exemplars but on underlying language properties, it is easier to create modifications that are psychometrically valid. That is, STAGES ‘specialty protocols’ can be developed using alternative stems and different lengths, that are relatively easy to test for internal validity – such as the climate change specialty protocol O’Fallon and I developed and validated psychometrically, described below. Since one of the objectives of my research is to make a case for interiors in climate change, I needed to find a developmental methodology that could be modified for use in empirical research on climate change without compromising its rigor, which is what I found in the use of STAGES. In addition, because STAGES focuses on underlying structure rather than specific exemplars, it allows for the developmental analysis of arbitrary text such as reflective essays and story narratives, which are more naturally occurring vs. the more artificial sentence completion test.

**Methods**

**Modified STAGES Assessment for Photo Voice Data**

My research began to fill this gap by piloting a developmental analytical framework in climate change adaptation (Hochachka, 2019). In this, I drew on previous data from El Salvador and used a modified STAGES analysis on ‘photo-texts,’ to examine the question: Why do people make meaning of climate change differently, and how can a maturation of perspective-taking capacities help us to understand this plasticity of meanings?
I used a “modified STAGES assessment” in a pilot case study of how the development of meaning-making might affect views of climate change. I re-analyzed previous data from El Salvador, in which participants explored their own perspectives on climate change and adaptation by taking photos in response to the questions: What is climate change to me?, What are the impacts of climate change for me and my community?, and, How am I adapting? Using photos and their written photo-interpretations, I examined how different perspective-taking capacities arrived at different meanings about climate change, based on the object of awareness, complexity of thought, and scope of time.

The data consisted of 27 photos and their interpretations that were transcribed and translated by native Spanish speakers. The method of Photo Voice was selected for its ability to invite research participants into their own perspectives on the issue in order to better include the Personal sphere of transformation and then to problematize and discuss these perspectives together (the UL and LL quadrants of an integral approach to adaptation). Photo voice is a critical methodology that interrogates the epistemological power imbalances that can arise in a context of environmental change, with some uses of this methodology in the area of climate change (Harper, 2002; Hergenrather et al., 2009; Hissa, 2016). It has been found to support people in ‘making visible’ and meaningful the various socio-political realities they are embedded in, with theoretical grounding in education for critical consciousness (Migliorini and Rania, 2017; Sutton-Brown, 2014). Participants (23 rural Salvadorans; 13 men and 10 women) were from low-income families and were primarily farmers or were involved in household-level economic activities. While participants had limited education, several had been involved in informal education opportunities, such as awareness-raising and capacity-building workshops, via NGOs and the Catholic Church, and overall this region is renowned for political resistance and social change engagement, both during and after the Salvadoran civil war (1980-1992). As such, community members may have participated in previous critical consciousness-raising work (or conscientization (Freire, 1974)) on other themes.

Much of the project engaged a collective-analysis process I was involved in professionally prior to my doctoral studies, in which Salvadoran community researchers conducted photo voice in Chalatenango, El Salvador, then certain representatives traveled to the capital, to a bioregional meeting, and also to Canada, sharing and discussing the research results and the photo-texts. Some years later, within the frame of my dissertation, I revisited the data and brought a different analytical lens (Table 1) based on the STAGES model of adult development (O’Fallon, 2013) to understand the data in a new way.

Within that frame, I analyzed the photos and their interpretations (n=27, as 4 of the 23 participants had two photos) for perspective-taking capacity applying the modified STAGES assessment, which was then verified, and corrected if needed, by developmental psychology researcher, Dr. Terri O’Fallon. The STAGES assessment is usually carried out as a Sentence Completion Test (SCT) involving 36 sentence stems. I sought a modified version of this assessment more suited for community-based climate work. Using a subset of the scoring logic from the SCT scoring manual, data was assessed for perspective-taking capacity by coding the photo-interpretations according to the three following themes, and considering an array of variables within each. These are based on and relate closely with O’Fallon’s scoring logic above,
but I modified them in a manner that I thought would be pragmatically useful to climate researchers in the field. They included:

1. Object of awareness (concrete, subtle or meta-aware),
2. Complexity of thought (atomistic, mechanistic, context-dependent, or systems thinking); and
3. Scope of time (no-time; present and past; past, present and future; evolutionary).

This generated scores for perspective-taking capacities range from 2.5, 3.0, 3.5, and 4.0 – corresponding with the conformist, expert, achiever, and pluralist stages of meaning-making. This modified STAGES assessment was piloted in the Salvadoran sample and helped contribute insight into the stages of meaning-making represented in the photo-transcripts. It was not as comprehensive as the full 36-stem test would have been, but instead was used illustratively to better understand why there is such plasticity of meanings and to orient the design of further research.

Results and Discussion

The results from the “pilot project” using the modified STAGES assessment of the photo-transcripts has been published (Hochachka, 2019) and the findings were interesting enough to warrant a further collaboration with O’Fallon. Together, we designed a climate change Specialty Protocol (explained further below) which, because it employs the 36-stem metric and statistical consistency trials, will offer a more rigorous, nuanced view into the stages of meaning-making about climate change. Some of what was found in the Salvadoran pilot project will be checked and “double-fitted” by the more detailed data from the Specialty Protocol, so to refine and iterate the analytical framework, if the need be. Here, I summarize the shape these findings are taking to date, based largely on what I have already published, discuss their application, and then propose the further research implications for the Specialty Protocol data.

Complexity of Meaning-Making

In psychology, it has been noted that the cognitive line of development – i.e. awareness – tends to lead overall self-development (Wilber, 2000). This is to say that development, in large part, has to do with how complex an object one is able to be aware of; as development increases, one’s ability to observe ever more complex objects tends to increase. Climate change is among the more complex of objects that humans have tried to understand and address (see Morton, 2013 on "hyperobjects"). Theoretically, through the complexification of psychological development, more of climate change complexity will be rendered visible to one’s meaning-making.

Findings in my empirical research correspond with this, and help us understand how meaning is constructed based on iteratively more complex stages (Tables 1 and 2). These included concrete conceptions of weather, direct impacts on crops and on the senses (i.e. colder, humid, hotter, etc.) with the Conformist stage of ego-development. Subtle conceptions included a multiplicity of associated factors based on cause-and-effect, mechanistic thinking with the Expert and Achiever stages. Further subtle and situated-knowing, considering place, context, positionality, and history, derived from an interdependent and self-reflective knowing, were
demonstrated with a Pluralistic stage of meaning-making. These findings suggest that *increasing degrees of complexity of the object of climate change can be known more fully by the increasing complexity of the subject’s meaning-making.*

This could provide novel explanations to some persistent confusions in the climate change field. For example, the common conflation “weather” with “climate” change is a paramount concern for scientists and the informed public, largely because weather is understood as natural and uncontrollable whereas climate change is understood to be human-caused and is partially controllable. The concern lies in how framing climate change as weather change may in turn undermine agency and action towards mitigation and adaptation. My research suggests an explanation for this may lie in the complexification of meaning-making. That is, this may not be a preference to use the term weather over climate, but rather reflect the perspective-taking capacity of the subject. The concept and process of ‘climate change’ is conceptually more complex and abstract that that of ‘weather,’ which can be understood in a very concrete sense. As such, although the notion of climate change will be present in the background for people through what is heard in the media and social milieu (i.e. it will “subsist”), it may not “exist” until a certain meaning-making stage in which abstract, subtle, cause-and-effect logics are used to organize meaning (Hochachka, 2019, p. 5). This helps to explain why, for example, people using conformist meaning-making (or earlier) may tend to be skeptical of ‘global warming’ when it’s cold out in the present moment: they are likely organizing meaning about climate change through the tangible, concrete, here-and-now vagaries of weather, rather than construing this phenomenon of climate as a subtle, abstract object, arising across vast timelines. Rather than be frustrated by that, a more generative reaction may arise through comprehending the meaning-making structure behind it. Further, while often people carry a lay sense of climate, such as, “Florida has a humid climate” vs. “Arizona has a dry climate,” one would have to ask further questions to understand what that actually means to them: what complexity of thinking they are applying, what object of awareness they are tracking, and what range of time and space does their meaning include.

**Greater Probability for Alignment in Communications**

There are various implications of the plasticity of meanings about climate change. From other developmental psychology research, it is known that communications that assume and rely on a certain meaning-making frame can miss their mark; that is, such messages may not be comprehensible within other meaning-making lenses of the audience (Kegan, 1998). For example, “adapting to climate change” is a phrase that has become increasingly used by scientists working in the climate change arena, which in their use refers to “how human beings can best anticipate and respond to inevitable and predicted shifts in climatic conditions and their associated biophysical impacts;” (Moloney et al., 2014, p. 7). Yet it remains unclear whether that is an understanding held by lay people – do they connect the discrete things they are doing in a changing context into the abstract concept of “adapting?” and, if not, are scientifically-framed communications using such a term misaligned with their intended audiences?

My preliminary results reveal that *greater alignment is possible when stages of meaning-making are recognized not as preferences, but actual sense-making mechanisms through which people interface with reality.* In addition to understanding what is seen through a person’s
meaning-making lens, the developmental perspective helps explain how meaning is organized by that lens, and as such would help climate change communicators to more adeptly and authentically connect with local actors. Building on my example between weather versus climate change above, this finding may explain why, for example, Bostrom and Lashof found that framing climate change with more concrete metaphors, such as a, “‘thickening blanket of carbon dioxide’ that ‘traps heat’ in the atmosphere,” helped to connect with certain actors (Bostrom and Lashof, 2007, p. 31).

One strength of developmental psychology, and particularly the STAGES model, is that it orients analysis to some foundational concepts (such as, the object of awareness being concrete, subtle or meta-aware; and whether one’s orientation to an idea is passive or active) that are key distinctions in understanding how a person is organizing meaning, and what they do with that understanding. As such, it could also provide a developmentally-informed design logic to help in further aligning communications with each stage of meaning-making and ameliorating communication misses.

**Sovereignty over Translating Meanings into Actions**

Despite being intangible and difficult to conceptualize, people encounter climate change either through media or conversations, or through its impact on their lives, thus they must make sense of climate change however they can. For many, climate change is understood as an entangled amalgam of multidimensional changes in the environment, culture and practices (Ensor et al., 2019) and proxies (such as snow-pack level or rainfall patterns) are used to track its impact on local lives (Clifford and Travis, 2018). Valuable lay knowledge-resources and energy can get lost when the meaning-making that people natively hold is dismissed as irrelevant or wrong (Boillat and Berkes, 2013; Wolf and Moser, 2011). Instead, scientific or ‘proper’ definitions of climate change can end up being patched haphazardly onto people’s existing meaning-making apparatus. When that occurs, the concept of climate change can end up “cognitively isolated” with the rest of one’s knowledge on the topic, and thus hamper the commitment to follow through with adaptation strategies (Findlater et al., 2018, p. 178).

The two articles of my dissertation collection that focus on developmental psychology to inquire into how meaning is organized and why help to disclose the mechanisms behind such meanings, and in so doing, subsequent climate adaptation can be situated from within these meaning-making frames. I introduced the ideas of “sovereignty” and “translation” in my 2019 article to present the idea that, rather than being dismissed as climate illiterate, edited by a ‘proper’ definition, or patched on to one’s overall mental model, these native ways of making-meaning about climate change have value in their own right. Retaining sovereignty over one’s own meaning-making essentially helps to disrupt the uneven power dynamics that shape what is considered valid knowledge. If people are not dismissed as “climate illiterate,” and if lay understandings are given a chance, people may translate their own meanings into action and, in so doing, demonstrate greater ownership and energy to see them through. It may also be worth studying further the possibility of ‘knock-on effects’ in which more respectful framings about lay knowledges introduces a change in the overall cultural system, fostering greater openness, curiosity, and learning between different perspectives.
Research Implications

In this section, I explore why this method may be important to other academics, policymakers, and practitioners working in climate change, and share some of the further research plans I have at the crossroads of a developmental psychology and climate change.

STAGES Specialty Protocol

The pilot project was compelling enough to warrant further investigation using the STAGES model. In this further research, I am looking more deeply and closely at the ego-development stages and their views on climate change. This research examines two questions, one focused on earlier stages and the other on later stages.

The first question seeks greater detail on both the strengths and limitations of meaning-making in the earlier stages. This helps to move away from the notion of earlier stages as being problematic or primitive, and offers an alternative to the (pluralist) sentiment that ‘everyone needs to be worldcentric’ to achieve sustainability. Instead, when seen through the findings of developmental psychology, to disparage people at earlier stages for their view, or behooving people at earlier stages to grow up faster, is neither accurate, fair, nor useful – particularly in meeting the challenge of climate change. Here, I ask: what are the real strengths and limitations of earlier meaning-making stages about climate change, and how can we emphasize the former in climate change engagement?

The second question brought to bear on this data will examine whether there might be unique meaning-making capacities that occur at the later stages that are important when seeking to understand a hyperobject like climate change. Theoretically, possible positive contributions of later stages might be their ability to perceive more of the complexity of the issue of climate change (Esbjorn-Hargens, 2010; Hochachka, 2019; O’Brien and Hochachka, 2010). Empirical studies in leadership development have found that later stages are more able to access trans-rational ways of knowing and tend to engage systems-, complexity- and integral theories to complex problems (Brown, 2011). Further empirical studies of such later-stage meaning-making capacities of climate change, and what implications that in turn may have, are yet needed and could yield important insights for the field.

To get this more detailed grasp on why there is such diversity of ways meaning is made about climate change, I collaborated with Dr. Terri O’Fallon to design a ‘specialty protocol’ using a modified version of the 36 sentence stems of the Sentence Completion Test (SCT). O’Fallon has constructed other Specialty Protocols by altering 6 of the 36 stems to address a particular domain. Tests of psychometric reliability (the Cronbachs alpha measure) confirmed the internal consistency of both the new stems as a group, and the entire modified protocol – for all of the approximately five specialty protocols designed to date (see the STAGES research papers in this special issue). Replicating that process, we replaced six of the 36 sentence stems in the original SCT with stems relevant to climate change. To do so, I considered what each new stem sought to evoke as a projective test – that is, what aspect of the self-system would the new stem relate with. For example, accounting for the findings of prior psychological scholarship on climate change, I sought to create stems that would relate with the scope of view that the person is able
to take on phenomena in general, his or her perception of where agency is located (self or other), psychological distance from the issue, emotions and perceived barriers for action, and empathetic range (i.e. me, us, all of us) as related to global warming. (These are written in brackets with the sentence stems below but not included on the test itself). These were then edited where needed by O’Fallon, and included in the Speciality Protocol.

1. The environment [scope of view]…
2. Climate change is [meaning-making]…
3. Regarding climate change, I [agency, locus of control, distance]…
4. My biggest concern about climate change [perception of risk, emotions of climate change]…
5. People who deny climate change [range of compassionate embrace]…
6. Actually, climate change [barriers spectrum: ignorance, uncertainty, denial]…

The test involved an online assessment, involving completing 36 sentences, taking between 30 minutes and 1 hour to complete. I used snowball sampling both within as well as outside of my own networks, trying to get as broad a range of individuals to take it as possible. However, there were some limitations to this sampling, which warrant mention. First, it was hard to expect people to do a written online assignment for a full hour, and so there may have been a self-selection bias in which the participants who ended up completing it may have had prior interest in this model or in developmental theories. Secondly, if these were individuals in my network, or even extended network, there was a strong possibility they were already aware of or educated about climate change. Finally, most of these participants were adults, with the exception of one youth.

21 participants took the speciality protocol for this study. We ran statistical trials on the data to date to ensure we were still accurately measuring ego-development. The goal was to maintain ego-development consistency, so that the scale was reflecting general meaning-making “stages” as well as providing a view into specific stages of meaning-making about climate change. If so, the data would show the overall stage of meaning-making, as well as the stage of the specific climate change responses provided. As was the case with prior Specialty Protocols, the Cronbach's alpha statistic for internal consistency was strong for both the set of six new stems (0.82) and for the 36-item survey as a whole (0.96) (N=32).

Given this affirmation of validity, analysis will then be carried out on the data to look at the stages of the discrete responses as well as the amalgam of the six climate change stems viewed together in relation to the stage of the participant. With the larger questions above in mind, the specific goal is to analyze what specific trends and themes emerge about climate change for each developmental stage and what new understanding specifically the later stages might hold for climate change communication and engagement.

Collaboration in Contexts of High Positional and Perspectival Diversity

One aspect of my future research will study how collaboration between actors could be carried out, not only considering this spectrum of meanings, but also the many other important layers that make these situations complex (such as positionality and power dynamics, the
realities of some actors living with multiple stressors and in a context of ‘double exposure’ (Leichenko and O’Brien, 2008), and the many cultural and political differences within a social group. Considering the context of winners and losers that climate change particularly exacerbates, what might effective collaboration look like when studying a global value chain for coffee, with actors at every point along the chain, each with their own cultures, experiences, sphere of influence, and stages of meaning-making?

This is an applied question, which takes seriously the implications that a developmental perspective brings to the issue of climate change adaptation, and tests the strength of its insights empirically. I have conducted two focus groups on this in Guatemala – the first with the producers in an organic, fair trade cooperative in the highlands of Huehuetenango, and then with a range of actors across the coffee value chain, including producers, buyers, exporters, the director for specialty coffee in the Export Association of Guatemala and representatives from the national coffee association in Guatemala City. I plan to hold at least another focus group with the North American end of the value chain, with representatives from the wholesale retailers, senior managers, buyers, and consumers. One of the foundational constructs of the STAGES model (that was not included in my earlier modified analytical framework) describes a shift in meaning-making from receptive (passive), to active (agentic), to reciprocal (relational), to interpenetrative (intermerged). Applying this lens to the analysis of the data may contribute critical understanding to the variance of perspectives regarding who is responsible and who is to blame for climate change – a topic which invariably arises when a multi-sectoral international group is convened in this way.

While some field work is pending for 2020 and the data from the first focus groups has not yet been comprehensively analyzed, so far, the data suggests that including the full range of actors, their contexts and their meaning-making constructs seems to produce an expanded and deepened definition of ‘adaptation’ which includes the structural and system-change dimensions of the issue as well as acknowledges the perspectival diversity across participants.

I am interested to complete the analysis to examine to what extent this re-frame may assist the value chain in moving from adaptation to transformation. Alongside “adaptation”, the IPCC (2014, p. 27) includes the term “transformation” as an important and viable pathway that is part of our future response, yet often the notion of “transformation” ends up relying on sustainability transitions research, such as the multi-level perspective (Geels, 2011). However, the IPCC hints at a broader and deeper change agenda, and references the Three Spheres of Transformation (Practical, Political and Personal), further described by O’Brien (2018). Here, I perceive the gap between what is called for and how we might realize that call (i.e. the empirical evidence and methods for engaging transformation) is uncomfortably large, given the urgency of the need for climate change action. This area of further research will contribute to an exploration of what bridges might exist to move from the current expressions of adaptation (largely focused on techno-managerial changes) to a ‘transformative’ approach that integrates practical, systemic, and psycho-social changes across society. It will raise a discussion on how transformation can be defined and engaged in various ways, depending on where an emphasis is placed (interior versus exterior, individual or collective), and thus offers an explanation as to why systems transformation and psychosocial transformation end up being quite distinct endeavors. I intend to present ideas for how they might be engaged in an integrative way, adding to the empirical work.
on the application of the Three Spheres model, and specifically examining in depth what transformation might mean in the Personal sphere through the lens of developmental psychology.

**Conclusion**

In this article, I have argued that the findings from developmental psychology are an important yet missing knowledge-set in climate change adaptation. I have contextualized this in two ways. First, in a global situation, in which adaptation is set alongside transformation, despite the fact that the gap between them remains substantial. Second, in an academic context in which the psycho-social studies in climate change remain unevenly weighted alongside scientific research, despite the growing recognition that adaptation requires a more comprehensive change agenda. As part of my larger argument that we need to close that gap between adaptation and transformation and integrate the psycho-social dimensions, here I have specifically considered what the insights of developmental psychology could bring to these sticky issues. Findings from research so far suggest that developmental psychology may bring a unique and largely untapped knowledge-set to the climate change conversation on how people are construing meaning. It discloses sequentially more complex meaning-making stages and, as such, presents compelling implications for aligning communications more effectively and for supporting local people to embed their adaptation actions in their own meaning-making frames. This is important because, while personal, practical and political changes co-arise and mutually influence each other, the personal domain could be considered first among equals because the other two domains always entail persons with a meaning-making apparatus. Taking this scenic route of pausing to understand why and how meaning about climate change is being organized as it is, may shed light on how transformation happens in the consciousness of individuals, and thus provide important insights for how to engage in transformative change towards sustainability.

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### Table 1. Analytical Framework to describe how meaning is constructed through lifespan, including preliminary application in the area of climate change adaptation.

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<tbody>
<tr>
<td><strong>1.0 Impulsive:</strong> Concrete, individual, receptive: “if I bite my finger it hurts.”</td>
<td>Magic worldview</td>
<td>Complexity of thought: atomistic</td>
<td>“I peed in the river, and the river is now getting back at me by flooding my home” (O’Fallon, 2018, personal communication).</td>
</tr>
<tr>
<td><strong>1.5 Opportunist:</strong> Concrete, individual, active: Experience in the immediate moment what is happening to them, everything is an object but all objects are alive: their cause and effect would be perceived as magical.</td>
<td>Imperial mind</td>
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<tr>
<td><strong>2.0 Rule-oriented:</strong> Concrete, collective, reciprocal: Opens a social dimension in which there is a more reciprocal way of viewing at the world, with an associated interest to know what others are thinking and a focus on making contracts, rules, and agreements.</td>
<td>Traditional / mythic worldview</td>
<td>Object of awareness: concrete</td>
<td>With a traditional worldview (or, second-person perspective), the climate change phenomenon would likely be construed as something in the hands of fate and more a matter of faith than science. Adaptation strategies would likely depend on what others were doing or what the rules and principles ought to dictate and would be applied in a parochial sense with localized strategies for survival.</td>
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<tr>
<td><strong>2.5 Conformist:</strong> Concrete, collective, interpenetrative: Interpenetrates with principles which they will follow without question. This often includes the law of the land, so if practices related to climate change are the law they will often embrace them (e.g. recycling).</td>
<td>Socialized mind</td>
<td>Time: Immediate and momentary (earlier), view of the past (later)</td>
<td></td>
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</table>
### 3.0 Expert:
Subtle, individual, receptive:
Preliminary ability to take an objective view, such that responsibility, respect and other subtle ideas begin to arise from within the person (as such these ideas are cherished). Begins to see the future and see probabilities of what might happen.

<table>
<thead>
<tr>
<th>Complexity of thought: abstract and networked</th>
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<tbody>
<tr>
<td>Modern / universalistic worldview</td>
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### 3.5 Achiever:
Subtle, individual, active: Can be strategic in planning, prioritizing of self-interests and achievements and with an emphasis on outcomes, results, and goals relating to future time; interested to measure what happens through time (hypothesis and testing, deductive thinking).

<table>
<thead>
<tr>
<th>Complexity of thought: abstract and networked</th>
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</thead>
<tbody>
<tr>
<td>Self-authoring mind (early)</td>
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</table>

### 4.0 Pluralist:
Subtle, collective, reciprocity: It becomes apparent that the actions and interactions of humans with the environment cannot be separated from their context, and the socially-constructed nature of phenomena is recognized. Cause and effect depends on the situation and the circumstances. It is local, not universal.

<table>
<thead>
<tr>
<th>Complexity of awareness: subtle</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Object of awareness: subtle</td>
<td></td>
</tr>
<tr>
<td>Time: past and future (early), multi-generational (late)</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Complexity of awareness: subtle</th>
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<tbody>
<tr>
<td>Self-authoring mind (mature)</td>
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</table>

### 4.5 Strategist:
Subtle, collective, interpenetrative: Able to understand and sort contexts, climate change manifests contextually, but is adaptively complex and interconnected systemically, humans affect and recreate the ways that healthy systems interact with each other, and as such can reverse damage caused by human disruptions of natural complex systems.

<table>
<thead>
<tr>
<th>Complexity of awareness: subtle</th>
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<tbody>
<tr>
<td>Self-authoring mind (mature)</td>
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</table>

A modern worldview (third person perspective), would likely understand climate change adaptation scientifically and economically and seen as a technical problem to be solved or the need for adaptation to be carried out as part of economic or technological progress.

A postmodern (fourth-person perspective) would likely seek to co-create and collaboratively work towards climate change adaptation processes, as it is perceived that the future of the planet is in the hands of humanity, would view this critically and with greater emphasis on the power dynamics and systems injustices that create vulnerability and produce climate change.
5.0 **Construct-aware:**
Meta aware, individual, receptive: The constructed nature of reality is recognized on the whole, such that humans are seen not merely as actors in the system but rather their thoughts, ideas and beliefs about the system are constructing and shaping, as well as shaped by, its evolution and trajectory.

| Complexity of thought: systemic and meta-systemic |
| Integral / integrative worldview |
| Object of awareness: meta-aware |
| Time: evolutionary both forward and backward in time, (including recognition of timelessness) |

5.5 **Transpersonal:**
Meta-aware, individual, active: The understanding that “my” belief and belief systems are individually constructed and often limiting – this allows people to go beyond them to individually create/construct unusual and unique solutions with an ethic behind them.

An integral worldview would work towards adaptation in a trans-disciplinary manner; seeking to be aware of what people believe and how they construct meaning; ensuring that adaptive strategies can simultaneously meet the population where they are while providing some emergent ground for learning; would likely include researchers and practitioners as part of the process; and would let go of the idealistic desire for everyone to understand climate change the same way.
Table 2. Findings of modified STAGES analysis of photo-texts in climate change adaptation in El Salvador.

<table>
<thead>
<tr>
<th>Meaning-making (O’Fallon)</th>
<th>Empirical findings of how climate change and adaptation is construed and engaged. (Hochachka, 2019, pp. 8–9)</th>
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<tbody>
<tr>
<td><strong>2.5 Conformist:</strong></td>
<td>Climate change being described as changes in weather in concrete terms, such as recent epic floods, dry spells, intense rains, unusual storms.</td>
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<td>Photos made loose connections between objects, but these objects of awareness all remained concrete.</td>
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<td></td>
<td>Demonstrated an atomistic and immediate view of climate change, with the scope of time focusing mainly on the present, stretching only somewhat towards the past.</td>
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<td></td>
<td>Proposed simple, concrete behavioural changes which could support adaptation at a local level, even though such actions may not be grouped into the concept of ‘adaptation’ per se.</td>
</tr>
<tr>
<td><strong>3.0 Expert:</strong></td>
<td>Both expert and achiever take third-person perspectives, so the objects of awareness become more subtle or abstract, and the future comes more fully into view, therefore disclosing probabilities for logically what might happen.</td>
</tr>
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<td></td>
<td>Expert meaning-making included some subtle concepts (such as “diversity”) and considered a larger envelope of time stretching from the past and to some degree into the future, were more passive than active (i.e. receiving a training and being taught what to do to adapt), yet was still largely anchored in concrete phenomena (i.e. acreage, trees, compost).</td>
</tr>
<tr>
<td><strong>3.5 Achiever:</strong></td>
<td>Achiever meaning-making demonstrated thinking that was even more abstract and used further subtle concepts (such as, “contamination”), considered relationships and links between things and tended to forecast further into the future.</td>
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<tr>
<td></td>
<td>Demonstrated cause-and-effect logic which brought greater agency and responsibility as more consequences of actions are taken into account.</td>
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<td></td>
<td>Adaptation is carried out on several linked fronts (i.e. managing standing water, reducing garbage, and preparing for water-borne illnesses in higher temperature conditions), which are held together in a logical explanation.</td>
</tr>
<tr>
<td></td>
<td>Adaptation also considered to involve multiple systems in various domains: changing land-use practices, use of industrial agricultural products, and loss of traditional practices are all related to the problem-set.</td>
</tr>
</tbody>
</table>
4.0 Pluralist:  
- Included multigenerational and cultural impacts and even more subtle or abstract perspectives about climate change, such as ideas of history, intergenerationality, and impermanence.
- Used subtle processes to make sense of climate change adaptation that are now occurring in a broader contextual understanding.
- The ability to consider context and the multiple causes of a situation also has a further increase in agency and responsibility.
- Demonstrate linked-up meaning-making, to understand climate change as a phenomenon that adds to multiple stressors in the region, such as deforestation, soil erosion and degradation, increased use of pesticides, community health, and so forth.
- Some photo-texts demonstrate early systems thinking, considering how the resilience developed during the civil war may have contributed to being able to adapt to meet current challenges.
- Adaptation is considered on a notably larger time envelope and considers the context in which climate change is occurring: historical, ecological, economic, political, and social.
Women’s Authentic Leadership Development (WALD)

Natasha Mantler, PhD

Abstract: This qualitative study used Moustakas’ transcendental phenomenological approach to provide a comprehensive understanding of the social construction of authenticity and how this is experienced throughout the stages of adult development. In particular, the intent was to augment women's leadership development programs to prevent further entrenchment of gender and leader biases. Initially, 33 women who had already completed a developmental STAGES assessment, completed a survey about authentic leadership experiences. Using unified stratified sampling, 10 women were selected from the 33 for interviews, spread evenly across different developmental levels. Data were analyzed using the four processes of phenomenology: epoche, reduction (textural), imaginative variation (structure), and synthesis (composite). Findings indicate that women leaders experienced and understood authentic leading and leadership differently throughout developmental stages with more advanced stages being more complex with ever-widening perspectives and understandings. Women leaders with a socialized mind had a theoretical understanding of authenticity with momentary experiences of the phenomenon. The embodied experience of authentic leading arose in the self-authoring mind. Awareness of gender biases related to leadership became objective within the self-transforming mind accommodating the very insidious nature of biases. The sole women leader with a self-transcending mind (a neologism introduced in this research) understood authentic leading as unity within body, mind and soul. These phenomenological findings and their interpretation contribute to understanding women’s authentic leading characterized by the pervasive nature of gender and leader biases.

Keywords: Authenticity, gender and leader biases, women’s leadership development.

Introduction

Women are highly underrepresented in leader roles (Catalyst, 2016). Despite half a century of equal employment legislation in the United States (US), women’s opportunities for leader positions are anything but equal (Rhode & Kellerman, 2006). Although the share of women in senior positions is increasing incrementally, globally, less than one third (29%) hold senior management positions. Within the corporate world, only 5.2% of women hold Chief Executive Officer (CEO) positions (Catalyst, 2019).

Academic scholarship from a variety of disciplines (e.g., business, psychology and leadership) has exposed pervasive unconscious gender bias related to leadership (herein called leader bias),

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double-bind dilemmas, and in-group favoritism that women face within gendered organizations. The unconscious process of stereotyping (oversimplified conceptions) promotes a bias (preference) that promotes a masculine, heroic, individualist, and normative emphasis for leadership (Grint, 2011). This bias is so pervasive that male leaders are usually rated more effective than female leaders under all conditions (Rhee & Sigler, 2015).

Additionally, when male CEOs act decisively, they are seen as authentic (Liu, Cutcher, & Grant, 2015). They explained that because authentic leaders “have a deep awareness of who they are, [they are willing] to act upon their core values while transparently interacting with others. [They are also] guided by an internal moral compass with their decisions reflecting a high ethical standard” (p. 237). When female CEOs act decisively with resolve and certainty, they are seen as inauthentic (Liu et al., 2015). Inauthentic leaders would not be true to themselves (their values and principles) and would come across as false, not genuine and not legitimate. Liu et al. (2015) concluded that people judge leaders’ authenticity in relation to gender norms. The attendant social construction of authentic leading and leadership may subject women leaders to even more stereotyping than men (Eagly, 2005). Appreciating that (a) women leaders do not want to abandon the authentic leadership ideal and (b) authenticity provides women with opportunities to do leadership differently (Sinclair, 2013), research needs to focus on women (a) engaging in leader roles authentically and (b) internalizing a leader identity that feels authentic and is received authentically.

Theoretical Framework

In that spirit, this study operated at the intersection of leadership theory, authentic leadership, and constructive developmental theory. Regarding the former, most leadership theory literature describes effective leaders as being purpose driven with a clear vision and strategy, self and systems-aware, authentic and courageous with integrity, emotionally intelligent, and rationally competent. They foster teamwork while mentoring and developing others.

Authentic leadership theory in particular assumes that leaders pursue purpose with passion, practice their values and exert self-discipline, lead with the head and heart, focus on relationships, and emphasize a long-term perspective (George, 2003). Their leadership behaviour “draws upon and promotes both positive psychological capacities and a positive ethical climate to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency [leading to] self-development” (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008, p. 94).

Constructive developmental theories also underpinned this research because they provide a pathway to more holistically understand the nature of women’s authentic leadership development (WALD). In general, constructive developmental theories focus on the underlying structures of adults’ meaning-making systems, whereby the complexity of one’s thinking can potentially move sequentially through qualitatively different orders of consciousness (see examples at Cook-Greuter, 1999, 2004, 2013: Kegan, 1980, 1982, 1994; Loevinger, 1976; O’Fallon, 2013; Torbert, 1987; Torbert & Cook-Greuter, 2004).
As a caveat, these various theories have different names and category boundaries, but there is general agreement on how they correspond to each other. This research design mapped O’Fallon’s (2013) adult stages of development with Kegan’s (1994) orders of consciousness (see Table 1). Other scholars often equate Kegan’s SM, SA and ST with O’Fallon’s Diplomat, Achiever, and Strategist stages. In a unique contribution to the literature, this research design broke away from this tradition (see Table 1) by realigning several orders and stages and adding a new order of consciousness to Kegan’s approach called Self-transcending mind (STC) equating it with O’Fallon’s Universal stage of adult development. This theoretical initiative and neologism were inspired by conversations with Eric Reynolds (personal communication, April 4, 2017).

Table 1. Theoretical Framework for Women’s Authentic Leadership Development (WALD)

<table>
<thead>
<tr>
<th>Order of Consciousness (Kegan)</th>
<th>Stage of Adult Development (O’Fallon)</th>
<th>%*</th>
<th>Description</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socialized Mind (SM)</td>
<td>3.0 Expert 3.5 Achiever</td>
<td>36.5% 29.7% (66.2%)</td>
<td>Theoretical understanding of authentic leading with nominal experience in this arena</td>
<td>30%</td>
</tr>
<tr>
<td>Self-Authoring Mind (SA)</td>
<td>4.0 Individualist 4.5 Strategist</td>
<td>11.3% 4.9% (16.2%)</td>
<td>Embodied understanding of authentic leading while still experiencing gender and leader bias</td>
<td>30%</td>
</tr>
<tr>
<td>Self-Transforming Mind (ST)</td>
<td>5.0 Construct Aware 5.5 Transpersonal</td>
<td>1.5% 0.05% (1.55%)</td>
<td>Embodied and systemic understanding of authentic leading; objective understanding of gender and leader bias</td>
<td>30%</td>
</tr>
<tr>
<td>Self-Transcending Mind (STC)</td>
<td>6.0 Universal **</td>
<td>Embodied experience of authentic leading as the unity of body, mind and soul</td>
<td>10%</td>
<td></td>
</tr>
</tbody>
</table>

*Note: Estimated percentages from Cook-Greuter (1999) do not total 100% because two levels (15.6%) are not in the table

**Note: Cook-Greuter (1999) did not conceptualize Universal so she could not estimate percentage

In a culture deeply conflicted by women’s authority, most (80%) of the population operates from the socialized mind, where one’s thinking is shaped by the opinions and expectations of others, primarily forming how one behaves, thinks and feels (Berger, Hasegawa, & Kegan, 2007). People’s resultant unconscious biases, matched with the gendered nature of organizations, complicated by the complexity of the social construction of authenticity, lends itself to using developmental theory to understand women's leadership. Results can be used to propose new leadership development agendas and curricula for women. To that end, this study explored the research question: How do women develop and experience authentic leading and leadership throughout the adult stages of development?
Method

This qualitative study employed the phenomenological approach, collecting data from women who self-identified as being familiar with and having experienced authentic leading and leadership. Specifically, Moustakas’ (1994) transcendental phenomenological method was utilized. This method focuses more on the participants’ descriptions of their experiences rather than the researcher’s interpretation. Findings contribute to developing a clearer description of the essence of the experience. Essence refers to the most important qualities or nature of something that makes it what it is (Creswell, 2007).

Initially, 33 women who already completed both O’Fallon’s (2013) developmental STAGES Assessment, then completed a 7-question survey about their experience with the phenomenon, which was administered using Survey Monkey. Using unified stratified sampling, 10 women from the 33 were selected for interviews, spread evenly across different developmental levels. Study participants were aged 33-63 years with a minimum of 10 years experience in leader roles in for-profit, non-profit and governmental organizations.

The phenomenological approach strives to understand the universal essence of a phenomenon by addressing the what, how and where (context) of research participants’ experiences with it (Moustakas, 1994). To that end, the interviews began with questions addressing the what and ended with how and where questions about leading authentically. I was shielded from the participants’ developmental level as part of the research design. Interview times ranged from 30 to 90 minutes.

Data analysis of the taped and transcribed interviews involved employing four processes of phenomenology: (a) epoche (setting aside presuppositions, predispositions and prejudices to make room for new things to emerge); (b) reduction (textural - what people experience), (c) imaginative variation (structural - where and how they experience it); and (d) synthesis (composite essence) (see Moustakas, 1994, for details). The final composite provides a comprehensive and holistic synthesis of the essence of these women’s authentic leadership development experience.

Findings

The following four composite summaries provide a distinct narrative and unique description of the phenomenological essence of the experience of authentic leading at each stage of adult development for women leaders (see Table 1). A fuller description of the links between data, discussion points and conclusions is available at Mantler (2017) replete with evidence (especially direct quotes) to support the composite summaries.

A key finding was that although the themes were similar throughout the levels, perspectives of authenticity increased in complexity and understanding. And, in addition to socialized, self-authoring, and self-transforming orders of consciousness (Kegan, 1994), another order was added to incorporate a late stage recruit, named Universal in O’Fallon’s (2013) STAGES theory but self-transcending in this study. As noted, this neologism and its conceptualization emerged from conversations with Eric Reynolds (personal communication, April 7, 2017). Each finding
accommodates what constitutes an authentic leader, authentic leadership, the experience of authentic leading, and the impact of gender bias.

Socialized Authentic Leader

In this sample frame, Kegan’s (1994) Socialized Authentic Leader (i.e., O’Fallon’s, 2013, Expert and Achiever stages of development) understood authentic leadership from a theoretical understanding (i.e., abstractly but not much experience with it). These three study participants had momentary experiences of leading authentically. Their description of authentic leaders mirrored the definition of authenticity within the authentic leadership scholarship (e.g., George, 2003; Walumbwa et al., 2008). Previous research suggests authenticity is attributed to leaders performing authentically in alignment with gender norms (Liu et al., 2015). Likewise, for these particular participants, assumptions and beliefs about gender and leaders appeared to operate below conscious awareness, thereby exposing them unnecessarily to discrimination as they strived to gain acceptance as an authentic leader. At the Socialized mind order of consciousness, people need external validation and do not have a strong sense of an independent self. They take too much responsibility for how others view them and get their beliefs and thoughts from external sources instead of from inside (which happens at the self-authoring stage) (Kegan, 1994).

Self-authoring Authentic Leader

Self-authoring means people are capable of defining who they are without being defined by others, relationships or the environment. In this study, the Self-authoring Authentic Leader understood authentic leadership as an embodied perspective, wherein they began the process of self-authoring their way of being an authentic leader (i.e., they made authenticity a key part of their leadership style). For these three participants, leading authentically emerged more inwardly at the Individualist stage and expressed itself more fully at the Strategist stage. The phenomenological tradition of this study facilitated the differentiation between the theoretical understanding and embodied experience of leading authentically. At this stage of adult development, participants understood the situation objectively (i.e., a fly on the wall) and expressed their own personal authority with confidence; they lead by taking charge and setting direction. Despite having objectively witnessed stereotypes affecting other women, these participants said they had not personally experienced gender and leader biases; but at least they were aware of it. This gendered awareness enabled them to better explore their thoughts and feelings, creating their own sense of authority or voice.

Self-transforming Authentic Leader

The Self-transforming Authentic Leader understood authenticity from Heidegger’s (1992) perspective; that is, people self-author their being while concurrently assuming responsibility for themselves in relation with others and “Being-in-the-world.” For these three women, the embodied experience of authentically leading came from their whole being, being in relation with others, holding a multiple systems perspective, and cultivating respectful containers for the facilitation of systemic transformation (Kegan, 1994). These participant leaders (at O’Fallon’s, 2013, Construct-Aware and Transpersonal stages of development) authentically engaged in
leadership roles by accessing parts of their wholeness in the moment appropriate for the system. They clearly understood gender and leader biases despite these stereotypes being deeply entrenched and understated in the system. This clarity was possible because their sense of being and self was not tied to their leadership role but instead constantly created and honed through exploring their leader role through interactions with others.

**Self-transcending Authentic Leader**

As noted, a new order of consciousness called *Self-transcending* (STC) was created for this study correlating with O’Fallon’s (2013) *Universal* stage of adult development (see Table 1). In this study, one participant fell into this stage, which correlates with Cook-Greuter’s (1999) suspected population percentage at near to zero percent (see Table 1). This *Self-transcending* Authentic Leader understood authentic leading as the unity within her body, mind, and soul. Her focus was on creating and holding containers of equanimity (composure, levelheadedness) that served as instruments for transformative processes. Compared to other participants, she was more able to speak to the nuances of gender and leader biases, particularly about how much women have internalized them both individually and culturally and are thus subjected to these stereotypes. This participant acknowledged gender bias from an individual and collective perspective, emphasizing the importance of choosing consciously and strategically how to lead authentically. She fully appreciated how much women will need to be awakened to and thus how much shadow needs to be integrated to lead authentically in gendered organizations and society in general (see Mantler, 2017 [pp. 99-104, 108] for evidence of this novel finding).

**Discussion and Conclusions**

This qualitative phenomenological study revolved around the research question “How do women develop and experience authentic leading and leadership throughout the stages of development?” The study was designed to address the essence of women’s authentic leadership. Appreciating the convention that percentage should be avoided when presenting qualitative findings from a small sample frame (McGregor, 2018), comments are offered on, what might be, a novel pattern for women authentic leaders. Per Table 1, over two thirds of the general population operates at the *Socialized mind* order of consciousness with low incidence of more advanced levels (Cook-Greuter, 1999). In this study, utilizing stratified sampling, the women leaders were evenly spread among the conventional three orders of consciousness with one instance of the recently constructed highest order, the *Self-transcending* mind. Future studies need to explore how authenticity emerges in the self-authoring mind and what is there about the self-transcendence character that leads to authenticity in leadership roles informed by the systems?

As a caveat, the findings do not support the idea that authentic women leaders move through different levels of consciousness because no one person was followed over time. Perhaps future research will support the following supposition. Authentic women leaders would follow a path toward wholeness, a developmental process that would be described as the *heroine’s journey*. Women leaders’ definitions of authenticity, authentic leaders and leadership, and their experience of leading authentically would become more complex with ever-widening perspectives and understandings. They would initially be theoretical, then embodied, followed by
the integration of shadow thus creating more facility and spaciousness to facilitate systemic transformation (see Table 1). Evidence of one participant clearly positioned at the highest level bodes well for other women leaders striving for authenticity to evolve as well.

Findings do show that women leaders at different developmental levels understood authenticity differently. They were all able to complete the seven-item survey about authentic leadership and express their lived experience with it, but some were much savvier around the concept than others. The following text recaps overall findings with suggestions on how to tailor authentic leadership programs depending on the participants’ developmental stage.

For the Socialized mind, leaders derive their sense of authority and knowledge from outside sources (Kegan, 1994), which suggests that it would be beneficial for leadership curricula and worksites to create an environment where vertical development is encouraged. Second, facilitating an objective understanding of both context and personal levels of consciousness may be beneficial as well because Socialized minds depend on others for their identity and role behaviour; they derive their sense of authority and knowledge from outside sources (Kegan, 1994). Women leaders at this stage of adult development will not hold sophisticated notions of what constitutes authenticity leaving them open to inauthentic leadership despite best intentions. To progress to the Self-authoring stage or beyond, leadership programs must ensure opportunities for women leaders to move beyond theoretically understanding the constructed nature of reality, so they can uncover and experience their authentic self in relation with others. This would involve leadership curricula teaching the process of self-authoring.

Participants at the Self-authoring level understood the conventional leadership paradigm and expressed their own personal authority with confidence by taking charge, setting direction and focusing their attention on their embodiment (personification) of authenticity. However, although they objectively witnessed stereotypes affecting other women, it became clear that some study participants were still experiencing gender and leader biases themselves and may even have internalized oppression. Women leaders are seen as belonging to an outsider social group and face greater difficulty obtaining acceptance as leaders (Eagly, 2005). By association, it makes sense that striving for authenticity and being received as authentic would also be challenging. Authentic leadership programs thus need to appreciate this reality. In particular, curricula need to focus on the way gendered stereotypes and norms come into play in assessing authenticity in women’s leadership. Appropriate theories to explore this phenomenon include feminism, critical identity theory and related fields (Sinclair, 2013).

One participant operating from the Self-transforming mind acknowledged the importance of objectively understanding context and leaned toward the dominant behavior of the organizations she interacted with in a way that still felt authentic to her. This strategy reflects a keen desire to be authentic even in the face of resistance to authentic women leaders. This phenomenological evidence suggests that leadership programs need to cultivate women leaders’ contextual awareness so they can engage in leader roles more authentically and be perceived as doing so. As women leaders become contextually aware, and the prevailing general-populace consciousness evolves from the Socialized mind to higher levels, there will be many more moments of women leaders being received authentically.
At both the Self-transforming and Self-transcending levels, gender and leader bias were viewed objectively (i.e., with detachment). These participants (few in number) focused on systems and recognized the wholeness and development levels of others who were engaging within these systems. These participants said they were able to facilitate system-wide transformation. At the new Self-transcending level of consciousness, the sole woman leader engaged in roles authentically by accessing parts of her wholeness in the moment for what was right for the system. Her heroine’s journey had evolved to aligning her body, mind and soul in service as an instrument for transformation of the whole in every moment. Leadership programs need to be prepared for the reality that some women might actually evolve to this highest level and plan curricula accordingly.

Utilizing the phenomenological approach and applying constructive developmental theory to women’s experiences of authentic leading and leadership also led to the understanding that authenticity is a line of development, meaning it represents growth. Although this study did not track each participant’s progression or evolution through developmental stages, women at advanced stages did appear to have markedly more sophisticated notions of authenticity in leadership contexts. To illustrate, the Self-transcending mind perceived authenticity as holistically tied to mind, body and soul while the Socialized mind could only theorize about being authentic. The Self-transforming mind could objectively (with detachment) understand gender and leader bias while the Self-authoring mind could not. Although the latter women were aware of gender bias, it still informed their identity.

The findings also uncovered the deeply extensive and subtle nature of gender and leader bias for some of the women. The essence of the heroine’s journey requires examination and reflection of stereotypes and initiatives to move assumptions and beliefs from the subjective to the objective realm. As one participant explained, efforts to expose and critique bias will facilitate the emergence of women’s authentic leadership - the emergence of the feminine - which would then create capacity and spaciousness to facilitate more women successfully engaging in authentic leadership.

In conclusion, phenomenologically framing and interpreting women’s leadership through the intersection of authentic leadership theory and constructive developmental theories proved beneficial to generating new insights into the essence of this phenomenon. Remapping conceptual development theory (i.e., Kegan and O’Fallon) to include the neologism the Self-transcending mind is a unique conceptual contribution that merits further consideration.

References


Integrating Adult Developmental and Metacognitive Theory with Indo-Tibetan Contemplative Essence Psychology

John Churchill1 and Tom Murray2

Abstract. In a world that (according to the World Health Organization) has approximately 450 million people suffering from some form of mental disease, there is a deep need to re-envision mental health care. Indo-Tibetan contemplative psychology is a practice-based evidence lineage tradition of between two-and-a half to nine millennia dedicated to the reduction of suffering and the full flowering of human potential. Whilst mindfulness meditation is becoming increasingly popular and effective in the reduction of mental suffering in contemporary culture and psychotherapy, the full contemplative psychology, of which mindfulness is but a foundational skill, is still relatively unknown. Therefore, there is an increasing need to understand and translate the theoretical foundations of such a psychology into a language that psychologists and educated laypersons can understand. In addition, we can explore how modern science can deepen the wisdom and adoption of such traditions. Using the theoretical perspectives of adult developmental psychology and metacognition, this project reveals the psychology of the Indo-Tibetan tradition as a sophisticated developmental psychology that, when practiced, facilitates a fundamental transformation in identity, or the basis of psychological operations, from which an individual experiences the world. Such a developmental process has the potential to eradicate the fundamental suffering caused from cognitive fusion with the basic structures of experience (body, self, thought, emotion, time, dualistic perception, and the attentional-intentional system), allowing for a transition to a fundamentally open boundless experience of identity, within which arises the experience of interconnectedness and the ensuing altruistic motivation to benefit the social good. Among contemporary adult developmental theories we believe that the STAGES model is most compatible with the principles of Indo-Tibetan Contemplative Essence Psychology. We use the STAGES model to show how eastern and western methods can inter-inform each other. This study is one brick in building the bridge between East and West, a bridge that honors the psychology of the East as being a rigorous, technical, and socially relevant psychological framework that, yet, can still evolve.

Keywords: Adult ego developmental, contemplative psychology, Indo-Tibetan Mahamudra and rDzogchen, STAGES, states and stages.

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Preface

From the first author John. The development of a planetary trans-lineage wisdom tradition has been a longtime passion of mine. To participate with others, such as Tom and Terri O’Fallon, in the integration of the Buddhist wisdom tradition with modern cognitive and developmental theory is an essential facet of building our planetary human tradition, and I am deeply grateful to be able to work with such scholar-practitioners. May this work be of benefit to the alleviation of human suffering and the flowering of positive human culture.

For the last thirty years I have been a student and then a teacher of Indo-Tibetan Buddhist contemplative psychology and practice. Fifteen of those years were spent working under the direction of the psychologist and meditation teacher Dr. Daniel P. Brown for whom I give deep appreciation and thanks. Due to his generosity, I was able to learn the deep structure of Buddhist contemplative psychology and gain invaluable teaching experience. My dharma teaching also draws on knowledge of and experience with theories of adult development, which I first became familiar with through studying the work of Ken Wilber in the early 90’s. I initially followed the adult developmental theories of Robert Kegan and Susanne Cook-Greuter, which offer great insight into the human condition. When Terri O’Fallon released her new STAGES model, which follows in this tradition and adds some additional elements, I was particularly struck by how well it interfaced with the ancient wisdom traditions I had been studying and teaching. This paper is a recasting of segments my dissertation text, "Contemplative Psychology, Metacognition and Ego Development," completed in 2018, which utilized the STAGES model, in addition to other theories in cognitive psychology, to build a bridge between the eastern wisdom traditions and western scientific traditions in a way that can further the aims and depth of both.

I would like to specifically acknowledge my wife and life partner, Nicole, who has been a source of support and love during a very challenging few years. Without her selfless sacrifice and belief in my work I would not be where I am today. And also, deep thanks to all the members of the planet’s spiritual hierarchy who have given so generously and selflessly for centuries. May their aspirations be fruitful in this generation and those to come.

From the second author Tom. It has been quite and honor and privilege to work with John to transform his 200 page dissertation into an article for this special issue that is 60 pages plus a 30 page appendix. My expertise is in developmental theory, and though I have studied with and taken retreats with Dr. Daniel P. Brown, I am in no sense at all an expert in Buddhist scholarship or Indo-Tibetan practices. This paper describes some later-stage phenomena that I have not personally experienced (i.e. "ask John about that"). Both John and Terri O’Fallon have been finding natural yet often surprising direct links between the STAGES model and the style of contemplative essence practice taught by John and Dan. I have watched on the side-lines as they have both iteratively made delightful efforts to knit these disparate yet kindred fields together – John through his dissertation scholarship and Terri through her intuitive insights and persistent study of human nature (Terri has also studied with Dan Brown). John has been gracious in supporting me including my own insights in several sections, drawing from my particular areas of expertise, making the document more of a full collaboration. When two theoretical models developed separately from different corners of the historical noosphere are found to have so
much in common, it is indeed fascinating and worth delighting in and exploring with enthusiasm and diligence.

**Transliteration.** To assist the reader in referencing Tibetan terms we have used the Tibetan transliteration method refined in 1959 by Turrell Wylie. This method has subsequently become a standard transliteration scheme in Tibetan studies, especially in the Western world. Wylie does not try to give pronunciation hints and serves only to accurately reproduce written Tibetan. As such diacritical marks used to mark sounds are not in this text for either Tibetan (Tbt) or Sanskrit (Skt).

1. Introduction

Contemplative traditions have been cited as providing a storehouse of essential wisdom about the human condition – some of which was once known but has been lost or forgotten in the Western march through modernity, and some of which represents knowledge, revealed through centuries of contemplative practice, that emerged on a path the western lineage did not explore.

In particular, Buddhist-inspired mindfulness practices have achieved a prominence, being adopted in many segments of society (e.g. Batchelor, 1997; Christopher, 1999), influencing practice in psychology and psychotherapy (e.g. Kabat-Zinn, 1990; De Wit & Baird, 1991), and inspiring an exponentially increasing number of scientific studies of their efficacy (e.g. Ainsworth et al., 2013; Brewer et al., 2013; Schoenberg, et. al., 2018; Dorjee, 2013).

Yet this trend represents only a slice of what Buddhism has to offer. In its 2600 years Buddhism has undergone a number of evolutionary transformations, sometimes called the "three turnings" of Buddhism (or of the dharmic wheel, see Appendix 3). These three main developments of Buddhist psychological thought are the Hinayana, Mahayana, and Vajrayana traditions (Ray, 2002). These three approaches to contemplative psychology are best seen as three phases or paradigmatic revolutions that sequentially build upon each prior discovery (Brown, 2016). At their deepest level, these are non-sectarian systems of theory and practice aimed at understanding human nature and providing the means for human happiness and psychological flourishing. Most of the contemporary focus on mindfulness (and related practices) draws from the principles of only the first of these three turnings (i.e. Hinayana, closely related to the Theravada school), leaving much of this ancient wisdom yet to be explored and applied in the West.

This text explores teachings from the Indo-Tibetan Mahamudra and rDzogchen traditions, thought by many to represent the pinnacle understanding of Buddhist contemplative psychology, and which integrate the three turnings into a single progressive system of psychological development and practice (Guenther, 1989; Brown, 2006; Chagmé, 1997; Klonchen-pa, 1993). We call this approach the "contemplative essence psychology" of mahamudra and dzogchen (Dali Lama, 2000; Chagmé, 1997; Ponlop, 2003).

The meeting of eastern and western theories of human nature represents an unprecedented accomplishment and opportunity in the history of our species. Esoteric theories and practices related to the deepest interior essence of our human nature are being tested, interpreted, and
updated by the scientific paradigm, and disseminated through modern technologies. Meanwhile modern man on the precipice, with its familiar list of "crises" – psychological, medical, economic, environmental, etc., that combine to create a "meta-crisis" in an unprecedented milieu of malaise, anxiety, cultural polarity, social paralysis, and existential threat – just might find the critical insights for its salvation in these Eastern traditions.

Of particular interest to use here is the integration of science-based adult developmental psychology (and cognitive theories of metacognition) with contemplative essence psychology. The empirical study of mature post-formal adult development might provide the best conceptual bridge to the stages of cognition and metacognition described in Buddhist contemplative practice (Brown, 2016). Our studies have incorporated the post-formal research on cognitive development by Koplowitz (1984) and Commons and Richards (1984), both of which build upon the pioneering work of the Swiss developmental psychologist Jean Piaget (1951); and work on ego development by Suzanne Cook-Greuter (2005) and Terri O’ Fallon (2013) that builds upon Loevinger (Loevinger, 1976). It has also included the integrative work done by the theorists Washburn (2000) and Wilber (2000), and additional research into metacognitive functioning.

In this paper we will make extensive use of the STAGES model developed by Terri O’Fallon (2010, 2012, 2013, 2020). STAGES, the most recent innovation in the Loevinger lineage, has a wealth of features that match closely to concepts and principles in contemplative essence psychology. This is probably due to the fact that O’Fallon drew upon her familiarity with eastern and mystical traditions (including the writings of Sri Aurobindo and Ken Wilber, and John Kessler’s esoteric Integral Polarity Practice) in ways that none of the other developmental theorists had done.

For the moment we will assume that readers of this journal are at least partly familiar with trends in contemplative practices, integral theory, and developmental models, as we briefly foreshadow the substance of this paper by summarizing the elements that distinguish O’Fallon’s STAGES model to make it ideal for elaborating and enriching contemplative essence psychology.

− In the model the entire developmental sequence is based on non-conceptual modes of perception and awareness as they generate ever-new distinctions (categories) in the mind. This maps well to the essence tradition's focus on phenomenology and the non-conceptual "basis of operation" that defines one's "view." STAGES contains a sophisticated model of the relationship between stages of cognitive complexity, states of consciousness, and stable-stage orders of perceptions (views); that latter of which maps well to modes of operation (existential views, or basis of identity) described in contemplative essence psychology.

− STAGES specifies a repeating nested pattern of developmental unfolding that involves moving from exterior to interior objects, from individual to collective objects, and from passive to active orientations to perceiving each type of object. These patterns map well to principles in contemplative essence psychology. For example, STAGES’ treatment of the exterior/interior dimension (or internal vs. external facing) maps to the "event perspective vs. mind perspective" used in the essence tradition.
STAGES fleshes out *territory in the higher tiers* to a greater degree than other models, and in a way directly analogous to contemplative essence psychology. It explicitly mentions awareness of awareness, theapperception of timeless awareness, spacious freedom, emptiness (of different forms), and fullness.

STAGES includes a *shadow-work* model articulated according to developmental level, which coordinates well with the deconstructive and emptiness elements of the essence traditions.

This theoretical study explores Buddhist contemplative psychology as presented within the non-sectarian presentation of the Indo-Tibetan Mahamudra and rDzogchen tradition (Brown, 2006; Chagmé, 1997; Klonchen-pa, 1993) in an attempt to realize a conceptual integration of this tradition with western developmental models. It aims to help fill in this gap in the literature and to support building a better conceptual bridge that integrates Buddhist and Western understandings of psychological development. This will allow psychologists and interested meditators a deeper understanding of practice, provide a more complete theoretical understanding of the psychological transformative process that a meditator might undergo, and support therapists’ and their clients’ contemplative exploration beyond introductory mindfulness practices towards greater freedom from psychological suffering and the flowering of human potential.

2. Background

In this section we elaborate on several areas of knowledge that we will draw on in the central section "Integrating Contemplative Essence Psychology and Adult Development." This section includes: (1) motivating context including the current global state of psychological health, an analysis of our current moment in the east-meets-west cultural exchange, (2) an overview of cognitive developmental and metacognitive theories including an overview of the STAGES model; and (3) an overview of the Buddhist essence psychology of the Indo-Tibetan lineages.

2.1 Motivations

**Global prevalence of psychological disease.** It has been estimated by the World Health organization that 25% of people worldwide will suffer from a mental disorder. This means at this moment in time approximately 450 million people are suffering from a psychological disease. To make matters worse, due to stigma, fear of discrimination, and lack of access to mental health providers, it is believed that two-thirds of those with a psychological disorder will suffer in silence and never seek help (World Health Organization, 2001).

Starting near the beginning of the 20th century with Sigmund Freud and the development of psychoanalysis, the field of clinical psychology has creatively evolved in its attempt to reduce and eliminate mental and emotional suffering (Freud, 1990; Weston, 1998). Its successful evolution has expanded to include hundreds of different theoretical and therapeutic orientations grouped under such broad categories as psychodynamic, cognitive, behavioral, systemic, and humanistic psychology. Research has shown that many of these approaches are successful in treating disorders such as anxiety, depression and others (Seligman, 1995).
As biological science also evolved, major developments in psychotropic medications began to address psychological disorders at a biological level. With the introduction of Lithium in the 1950’s, followed by the developments of a series of anti-psychotics, Valium in the 1960’s, Prozac in the late 1980’s, and the popularization of Ritalin in the 1990’s there has been a continued development of drug treatments for a wide range of disorders (Ingersoll & Rak, 2015). By 2010, in the United States more than one in five adults was on at least one psychotropic medication (Medco, 2011).

Despite all the developments in psychotherapy and psychopharmacology in the United States, there has been no reduction in the prevalence of mental disease, and at present 43.8 million adults, or 18.5% of the population, experiences a mental illness in a given year (National Institute of Mental Health, 2015). According to the New Economics Foundation, the United States, despite all its wealth and the psychological services at the disposal of its population, is unable to offer sustainable wellness for its population and only ranks 108/140 in happiness (see the Happy Planet Index, http://happyplanetindex.org). Aside from improving access to treatment and training many more professionals, there is reason to wonder what else might reduce the extent of mental disease and the lack of human flourishing.

**Biases in Western Psychology.** Clinical psychology as practiced in North America has been criticized as a product of “WEIRD” (Western, educated, industrialized, rich, and democratic) societies (Christopher, Wendt, Marecek, & Goodman 2014). It has been argued that, to a large degree, modern psychological theory and practice fails to recognize the extent that they embed western cultural constructs. As a product of WEIRD, western psychology can be seen as folk psychology, situated squarely in a paradigm of scientific modernity (Brunner, 1990). Post-modern psychologists have argued that the science of psychology is not as objective as it is often believed to be (Gergen, 2001; Pickering, 2006). Its training and practices transmit a set of cultural beliefs concerning a moral vision that defines what constitutes emotional and cognitive health, and the good life (Christopher, 1996, 1999).

One avenue to begin addressing the vast unmet need for psychological intervention is to adopt an attitude of cultural humility and re-envision psychotherapy as a global human science (Tervalon & Murray-Garcia 1998). This means recognizing and studying those dismissed non-Western psychologies that offer important perspectives on the human condition (Segall, Lonner & Berry, 1998). These under-utilized resources can help in the development of useful clinical and behavioral applications to reduce suffering and support the growth of happiness.

One such psychological framework is contemplative psychology, the distillation of the psychological understanding of the world religious traditions (De Witt & Baird, 1991). Underneath the cultural packaging of mysticism, myth, religion, and ritual is a psychological science, a body of knowledge that can be (1) actualized in the laboratory of each person’s mind (Wilber, 2007), and (2) explored rigorously in modern experimental settings. The deeper structure of these contemplative practices, as is found in Buddhist and Hindu traditions, appears to follow a universal stage-by-stage progression, while the interpretations and manifestations of each stage are themselves influenced by the theological, cultural, and philosophical particularities of each tradition (Brown 1986; DiPerna, 2014).
Science and contemplative practice. Beginning with the 1902 publication of William James’s Varieties of Religious Experience, the study of contemplative psychology as a legitimate field of study in Western Psychology has unfolded slowly over the last century, the most well-known studies being those of practices from Zen Buddhism, Transcendental Meditation (TM), and Mindfulness Based Stress Reduction (MBSR) (Jung, 1939; Fromm, Suzuki, & De Martino, 1960; Desmarais, 2008; Benson et al., 1974; Kabat-Zinn 2009). At present the majority of contemplative interventions originate from the Buddhist tradition (Shonin, Van Gordon & Griffiths, 2013, 2014). This is likely due to a number of factors. Buddhism is a non-theistic tradition (Wallace, 2007). It does not necessarily rely upon a metaphysical understanding of human experience and is built upon the humanistic concern of reducing and extinguishing human suffering (Young-Eisendrath, 2008), and can be understood pragmatically without the need for metaphysics (Batchelor, 1998). As a meditation discipline it values objective truth and is more aligned with the values of science than those of pure belief (Dalai Lama, 2005). The Dalai Lama, arguably the most influential Buddhist teacher in the world, has been in dialogue with neuroscientists, psychologists, and quantum physicists for decades.

The foundation of Buddhist thought is psychological – as found for example in the Abhidharma, the phenomenological study of cognition and perception of early Buddhism (Govinda, 1961). Abhidharma was developed through the use of meditative stability to investigate the first-person experience of psychological processes (Markic, & Kordes, 2016). These models evolved over centuries though cultural processes that included rigorous debate, analysis, and cross-disciplinary engagement. The maps and models, developed by generations of meditators and contemplative scholars, have a precision similar to those developed in cognitive psychology (Lancaster, 1997), and are likewise similar in their understanding of the complex relationship between thoughts, feelings and behavior (Segal, 2003).

The tradition of Buddhist contemplative psychology has become popular in the West in the form of secular mindfulness meditation. Today, over 20 million Americans (6.5% of the population) practice some form of meditation (Elias, 2009), and in the United Kingdom 25% of the population (Mental Health Foundation, 2010). This interest in meditation is now influencing a growing research effort in academia. Early and ongoing studies in MBSR (Kabat-Zinn 2009; McMahan, 2008) paved the way for the contemporary explosion of interest. Research science has shown that the contemplative practices of concentration, mindfulness, compassion, and loving kindness have a profound impact on the brain (Hölzel, Lazar, Gard, Schuman-Olivier, Vago, &Ott, 2011). So much so, that a wholly new multi-disciplinary field of contemplative neuroscience is developing (Davidson, 2012). Buddhist derived clinical interventions (BDIs) are used to treat a range of psychological disorders including schizophrenia-spectrum disorders, personality disorders, substance abuse disorders, mood disorders, anxiety disorders, and depression (see "Clinical Implications" in section 3.1 below).

Beyond McMindfulness. As the interest in contemplative practices has developed over the last 20 years and moved into mainstream culture there is concern among pioneers in the field that consumer culture is unjustly and unwisely appropriating mindfulness. What has been termed "McMindfulness,” an oversimplified version and appropriation of contemplative practice, could just become another commodity for sale and dispensed in a weekend workshop (Hyland, 2015). Such offerings often focus on enhancing cognitive and emotional skills with an end goal of achieving more within status-quo cultural norms, furthering the modernist, individualistic,
 Cartesian worldview and ignoring the focus on human suffering, compassion, ethics, deep self-understanding, radical transformation, and "emptiness" that are central to the ancient wisdom traditions (Harrington & Dunne, 2015). Psychology directs its understanding of the normal by drawing upon knowledge of the abnormal and pathological. However, Buddhist contemplative psychology is soteriological, a path of liberation; it is directed to the supernormal human potential (Buddhahood) and draws upon the understanding of normal functioning to enhance the path towards the fruition of human potential (Lancaster, 2007).

### 2.2 Theories of Adult Development and Metacognition

As mentioned our overall intention is to integrate adult developmental theories with the Indo-Tibetan mahamudra and rdzogchen contemplative essence practices to provide insights that allow for cross fertilization of the Eastern and Western perspectives. We will start with a survey of developmental theories, focusing on constructive developmental theories, including the STAGES model.

**Metacognition**

Metacognition is a key construct in relating the contemplative essence psychology of Indo-Tibetan Buddhism to western psychology. Contemplative practices focus attention inward toward self-understanding, which allows for de-fusing or deconstructive moves toward self-liberation. Among western scholarly fields of study, the psychological study of metacognition comes the closest to the first of these moves (while the western fields of psychoanalysis and wisdom-studies might come closest to the second). In addition, recent studies in the field of "contemplative psychology" make heavy use of prior metacognition scholarship.

Our primary goal in this article is to relate contemplative essence psychology to developmental psychology. Unfortunately, there is only a weak overlap between the academic "silos" of developmental theories and metacognitive theories. Theories of metacognition tend to not take a developmental perspective and could benefit from doing so (as elaborated below), and developmental theories could benefit from the exploration of the cognitive micro-moves elaborated in metacognitive theories. We do a bit of the work of integrating these two fields here, but mainly acknowledge that there is fertile ground for others to explore in integrating them more deeply.

We can note a narrow and a broader sense of the term metacognition. The narrow one refers to a specific set of skills that develop around the time that formal operational thinking develops – i.e. when abstract and logical thinking mature into normal adult capacities. Educational theories speak to supporting strong metacognition, or thinking about thinking, both as a problem-solving skill, and as a component of self-driven ("self-regulated") learning – usually aimed at what we would call a 3rd-person perspective developmental level. But in a broader sense, metacognition can refer to a basic cognitive function that operates at all levels of cognitive processing, from early childhood (1st PP), into middle childhood (2nd PP), then "rational" thinking (3rd PP), and beyond into post-or trans-rational types of witnessing awareness (4th PP and above). It is this later sense of metacognition that we intend here. Like memory, attention, and perception,
metacognition (in this sense) is a core function that manifests in different ways across each phase of a lifelong developmental journey.

Metacognition has various meanings in the literature, including thinking about thinking, knowing about knowing, becoming aware of one's awareness, and cognition about cognition. It includes both the conceptual, reflective perspective-taking skills necessary for constructing knowledge of self, and for improving fallible knowledge; and the direct non-conceptual (closer to perceptual) processes necessary for defusing/deconstructing mind-structures, as is found in contemplative practices. Below we summarize some of the discussion extended in Appendix 2 on Metacognition.

Writings on metacognition in the west date at least as far back as Aristotle. In more recent history metacognition, as introspection or self-reflection; has been explored by William James (1890) and Sigmund Freud (1921). More contemporary theorists of metacognition have studied the role of metacognition in self-regulated learning and problem solving (Flavell, 1979; Brown, 1987), critical thinking (Paul, 2008), epistemic understanding (knowing about knowledge; Kuhn, 2000), and self-understanding (Brown, 1975). Metacognition is often described as thinking about thinking, but it can also include: thinking about feeling, thinking about perception, and thinking about knowledge; and sensing into (i.e. feeling/perceiving) the experiential nature of one's thinking, feeling, believing, or perceiving. Metacognition is usually understood as an in-the-moment process, but that process leads to stored memories, i.e. metacognitive knowledge, gleaned from that self-reflection.

Theories of metacognition inevitably decompose the process into steps, phases, and/or levels. There are myriad ways that is has been done, with enough overlap to compose a general outline, but little agreement on a specific model. These components include: the mental content being reflected upon; attentional processes; intentional processes, including goals and motivations; monitoring and evaluative processes that compare a current state to a desired state; anticipating or planning functions; executive control or regulative processes that change what the mind is doing, base on the evaluation; and strategic knowledge about how and when to apply all of the other sub-processes.

For our purposes here, we combine models described by Brown, (1987) Flavell (1979), and Jankowski and Holas (2014) to differentiate three aspects of metacognition: meta-knowing, meta-sensing, and meta-thinking. In the contemplative context these corresponding to contemplative knowledge, direct experience, and metacognitive awareness. All three forms of metacognition can operate upon any of the types of content mentioned (feelings, memory, thinking, etc.). Meta-thinking and meta-sensing are both in-the-moment processes, while meta-knowledge is information or strategic skill stored in memory. Meta-thinking involves self-reflection leading to inferences, that are usually translated in to concepts and language; while meta-sensing is more perceptual, non-conceptual, and non-reflective, and is constituted by the felt-sense of being in any moment and context.

The focus in the essence practices is on meta-sensing. In most contemplative practices the specific contents of thought and feeling are unimportant – thought and feeling are seen to arise and pass away.
In Appendix 2 we give an overview of the application of metacognition theories to clinical psychology, in particular: cognitive behavioral therapy, acceptance and commitment therapy, mindfulness based cognitive therapy, and attachment therapy. Some such theories focus on the reflective metacognition skills of interpreting past experiences, and revising tacit or explicit beliefs that have been formed through past experiences. Others focus less on the content of beliefs and cognition, and focus on awareness of present moment processes, i.e. on the recognition and acceptance of the contents of the mind (beliefs, thoughts, emotions, and sensations) rather than changing them.

All of these clinical methods aim for a form of what Hayes (et al., 2013 p.4) calls cognitive defusion: “the creation of nonliteral, non-evaluative contexts that diminish the unnecessary regulatory function of cognitive events.” Other models use terms including disembedding, de-reification, and detachment for this process. This shift in operation happens by making the prior subject of experience an object (Kegan, 1982; 1995); a shift in psychological operation from self as content (i.e. from fusion with a conceptualized narrative of self) to self as context.

Though western therapeutic models do well to heal many specific psychological wounds, distortions, and disorders (sometimes called "shadow"), they do not have the means to take the entire self as context, and to make self-as-context a stable trait. This is the goal of Buddhist contemplative psychology.

**Metacognition and Meditation**

The construct of metacognition (in its various forms) has been used by a number of theorists to explain the mechanisms of contemplative practice. These treatments of metacognition have a very different flavor vs. theories developed in the traditional metacognitive studies on problem solving, self-mastery, and self-regulated learning. There is more overlap between the contemplative and the psychotherapeutic study of metacognition. This is in part because contemplative practices (and psychotherapy) are largely about deconstructive or disembedding processes that free the self from prior conditioning to open up new fields of awareness and freedom; while problem solving etc. are more concerned with building up capacities to achieve goals.

For example, Yates (2017) notes that following the fundamental practice of attention to breathing etc., as metacognitive decentralized awareness comes online, it can lead to personal insights of phenomena described in Buddhist psychology, including insights into impermanence, no-self, and reactivity (dukkha). Below we will summarize some of the insights from this field, described in more detail in Appendix 2.

The highest (meta-meta) level of Jankowski and Holas' (2014) model includes the meta-awareness of decentration and experiential acceptance. This model differentiates controlling vs. inhibiting processes, where mid-level metacognition controls perception, thought, emotion, etc., while higher level metacognition inhibits beliefs and thought-habits that impede the process-level goals. According to Jankowski and Holas (2014), the person who achieves this higher level of meditation then starts to become aware of clarity (fundamental awareness), the most fundamental and basic form of reflexive non-conceptual cognition that makes all other types of cognition feasible and forms the core process of consciousness itself (Jankowski and Holas, 2014).
Grossenbacher and Quaglia’s (2017) model of Contemplative Cognition includes "Awareness of Transient Information", similar to our meta-sensing, which refers to the basic cognitive process of being aware of the transient objects of experience such as sensory information, affect, memory, imagery, and thought. ATI is the central feature of those meditations designed to cultivate moment-by-moment choiceless awareness of the ongoing stream of consciousness such as the choiceless awareness of Zen shikantaza (just sitting) meditation.

Grossenbacher and Quaglia’s model also includes "intended attention" and "attention to intention." The former are processes and practices designed to develop attentional stability; while the latter involves monitoring and adapting the higher-level goals (intentions) of the contemplative process. Their theory shows how these two processes inter-inform each other.

None of the models described above contains an elaborated explanation of the system of "views" described in mahamudra practice, the levels of the non-conceptual awareness or "modes of operation." Thus, the Indo-Tibetan tradition speaks more clearly to the process of transcending identification through de-reification with structures of the self, leading to a transformation in the fundamental identity of an individual whilst maintaining the optimal functioning of the self-structure.

As we close our discussion on metacognition we will mention one of the primary limitations of this field, from the perspective of our inquiry. Such models articulate the details of the sub-processes involved in cognition about cognition, whether it be in the context of learning, problem solving, or psycho-therapy – but focus on the local context, without considering how, over time, cognition builds layer upon layer upon layer (and thus can also deconstruct layer upon layer). These models of metacognition acknowledge that the meta-content of one phase of learning can become the content of a future phase of (meta-meta) learning, but they tend to stall out there. For example, many would say that "problem solving" or "critical thinking" requires metacognition, and thus thinking about one's problem solving or critical thinking would be meta-meta-cognition. We can see that terms meta-meta, meta-meta-meta, etc. quickly become untenable and confusing designators.

Developmental theories allow for greater precision in this regard. The 12-16 levels defined by theories of hierarchical complexity begin with the lowest levels of sensorimotor processing (some start even lower at logical operations executed at the information processing level of neurons – see Commons and Chen (2014)). Each level "operates upon" the prior level, where "operating upon" is a "meta" move that takes any form – e.g. to observe or monitor, to assess, to compare or differentiate, to coordinate or synthesize, to manipulate or control, etc. We will continue below with an introduction to developmental theory, keeping in mind that the literature on metacognition is useful in focusing in on the micro-structure of each developmental transition.

**Developmental Psychology**

Theories of how humans differ psychologically and cognitively can be classified as either developmental theories or trait theories. The former defines invariant sequences of increasing maturity, while the latter define characteristics that do not necessarily mature or change. Trait theories include personality and character taxonomies, for example: Myers-Briggs, Enneagram, Five Factor Model, and Attachment models, that can classify individuals differentially at any
level of maturity. We are of course interested in developmental theories here (though Indo-Tibetan schools also include their own trait taxonomies (Rockwell, 2002). Though some developmental theories, called phasic or life-span theories, divide adulthood into segments based on age, changing roles, pivotal events, cultural patterns, or life crises, we focus on those that key off of increasing complexity in cognition and/or meaning-making.

We can differentiate two subsets of developmental theories, those that focus primarily on cognitive development (also called structural theories; see Baldwin, 1913; Case, 1992; Fischer, 1980; Kohlberg, 1990; Selman, 1974) and those that focus on the development of meaning-making, or the closely related concept of ego development (so-called Constructive Developmental theories, see Loevinger, 1998; Kegan, 1982; Torbert, 2004; Cook-Greuter, 1999). The latter include considerations of cognitive complexity, but focus particularly on how this complexity capacity is applied to the personal/egoic (I, me) and interpersonal / social / psychodynamic (you, we, them) domains.

Structural theories of cognitive development were first introduced by Baldwin (1913) and Piaget (1951). Piaget outlined a pattern of growth leading from infancy to adulthood through four main phases: sensorimotor, preoperational, concrete-operational, and formal operational (Piaget, 1971). Each stage is a qualitatively distinct self-organizing systemic whole, organized by an underlying pattern of cognitive operations. In the developmental process humans integrate and reorganize each prior developmental level to form a more complex hierarchically superior level. Each qualitative shift represents a new level of hierarchical complexity or stage of developmental growth. By making the subject an object (Kegan, 1995), the individual is able to transcend and include (Wilber, 2007) the prior level of development.


Though Piaget's model ended at the formal operational stage achievable by young adults, succeeding theorists extended models into later "post-formal" capacities. One of the most articulated models of adult cognitive development, one including post-formal stages, is the Model of Hierarchal Complexity (MHC) of Michael Commons and his associates. MHC (and also Fisher's Skill theory (1994), a very similar theory published at the same time) is distinct from most of the other theories in that it proposes a domain-independent model of development – i.e. one that can be applied to any type of learning or growth (and it has been showed to apply to many of the specific skills previously studied, and to replicate earlier results, see Commons and Chen, 2014; Dawson et al., 2005).

In Commons’ stage conception of cognitive development, there are five post-formal cognitive stages beyond formal operations (Commons & Chen, 2014; Commons & Ross, 2008):
systemic cognition (ability to operate on formal operations, and construct multivariate systems coordinating multiple inputs within a given context, best exemplified by the scientific method);

metasystemic cognition (including the ability to compare, transform, and synthesize systems);

paradigmatic cognition (synthesizing multiple meta-systems to form paradigms; as needed to synthesize whole fields of knowledge that are seemingly unrelated);

cross-paradigmatic cognition (including a capacity to develop whole new field of knowledge, as was done by the likes of Charles Darwin, Albert Einstein, and Max Planck); and finally,

meta-cross-paradigmatic cognition (able to analyze the dynamics and recognize the limitations of cross-paradigmatic thought). Note again that, as a domain-independent model, these terms (actually all of the levels in the model) can be applied in the analysis of any particular skill being developed.³

Constructive Developmental Theories. The Constructive Developmental line of research progressed mostly in isolated parallel to the Structuralist line, though publications in both research communities sometimes referred to each other. In fact, the two research lines are only recently being deeply compared, contrasted, and integrated. The STAGES model described later begins to bridge the gap between these research communities (and see Murray 2017 for another preliminary attempt to integrate them). Next we focus our narrative on the Constructive Developmental theories.

Though Robert Kegan's theory of meaning-making complexity (or "orders of consciousness") has substantial overlap with it, we will focus on Loevinger's "ego development" model, and those that extended it (i.e. Cook-Greuter, Torbert, and O'Fallon). All of these models use the sentence completion test (SCT) to assess development (a method that is less time-consuming than the subject-object interview used to assess in Kegan's framework). Because these models, especially O'Fallon's STAGES model, are described in detail in other papers in this journal issue, we will give only a brief summary here. We also include additional descriptions of the ego development levels in Appendix 1 (see Murray, 2017 for description of the history and validity of the SCT).

Jane Loevinger (1918-2008) defined an ego level as an organizing synthetic function or filter that the individual uses to interpret life experiences and to generate meaning. It implies a level of character development, cognitive complexity, interpersonal style, and set of conscious preoccupations (Westenberg et al, 2013). Loevinger developed and refined the Washington University Sentence Completion Test (WUSCT), a semi-projective assessment, for measuring ego development (1998; Loevinger et al. 1970) that has been used extensively by researchers in the field. Using a novel method of analyzing 36 sentence completions that "triangulate" the ego development construct using a variety of sentence starters (stems) addressing personal

³ The question of how one defines "a skill" as separate to related skills is an important issue but beyond our scope here, but see Murray (2017).
relationships, authority, frustration, family life, work life, and society, and self-image, Loevinger and her team were able to reveal nine different stages of ego development.

Studies of the WUSCT include at least 400 studies and half a dozen meta-analyses (Cohn & Westenberg, 2004; Gilmore & Durkin, 2001; Novy & Fancis, 1992; Westenberg et al., 2013) making it “arguably the most extensively validated projective technique” (Lilienfeld, 2000, p.56.). Murray & O'Fallon (2020, this issue) summarizes prior research on the SCT for inter-rater reliability, internal consistency, test-retest reliability, face validity, construct validity, incremental validity, clinical utility, and predictive validity, all supporting Westenberg's conclusion that "findings of over 350 empirical studies generally support critical assumptions underlying the ego development construct" (p. 485).

Clinical research with the WUSCT has indicated that certain diagnoses are more connected with pathology at certain developmental stages (Noam and Houlihan, 1990) and that there is a clear decrease in symptom severity in those with higher levels of identity development (Noam and Dill 1991). Research is only beginning to support the hypothesis that adult development leads to increasing levels of happiness – this is a topic worthy of further investigation. Bill Torbert and his associates working in the field of leadership development have researched the predictive validity of the SCT most outside of clinical psychology. Torbert (2014; Torbert & Livne-Tarandach, 2009) found powerful correlations in higher action-logics (ego development as it pertains to business and organizational functioning), with only CEO’s and consultants measuring the two highest levels reliably generating organizational transformation leading to larger market share. Braks' (2020) paper in this issue gives further evidence of the relationship between ego development and leadership maturity and effectiveness.

Susanne Cook-Greuter, a student of Jane Loevinger, continued the work of ego development by expanding upon the post conventional levels that Loevinger had researched. Her research supported differentiating Loevinger's Integrated stage into the Construct Aware and Unitive stages. This differentiation was corroborated by research done in leadership by Torbert (2004) and Joiner (Joiner & Joseph, 2007). Cook-Greuter also introduced the use of a sequence of "person-perspectives" to describe the developmental sequence.

The STAGES model

Terry O'Fallon modified Cook-Greuter's model and scoring system, in part by incorporating elements of the AQAL Integral Theory developed by philosopher and transpersonal psychology theorist, Ken Wilber. O’Fallon recognized that the ego development stages explored by Loevinger and Cook-Greuter could be explained by an underlying stage-by-stage unfolding of a small set of foundational factors that underlie the deep structure of human physiology and psychology intrinsic to human growth.

The Loevinger’s WUSCT and Cook-Greuter’s SCT are both theories empirically driven by data, with a minimal theoretical influence of top-down models or bottom-up cognitive processes; and their scoring method is largely based on matching to specific examples (or exemplar categories). The STAGES model, whilst built on the empirical data-driven discoveries of the Loevinger/Cook-Greuter lineage, departs from its forbearers in that it is theory-driven, describing
an invariant 12 stage, 3-tier model of development, driven by a theoretically understood deep structure.

The STAGES model is composed of three dual cognitive orientations: Individual/Collective, Passive/Active, and Exterior/Interior, inspired by Wilber's AQAL model (O'Fallon, 2010a-b, 2012, 2013, 2020). These three dimensions move through three tiers of concrete, subtle and metaware experience (the fourth parameter) in a nested order of unfoldment. The theory suggests that human psychology unfolds through a 4-part process through each tier: passive-individual (Receptive), active-individual (Active), passive-collective (Reciprocal), active-collective (Interpenetrative). These might be referred to as the “four complexity” levels within each tier (Murray, 2017, p. 17). Figure A1 in Appendix 1 shows how each of these dimensions (or drivers) further refines the resolution of the model. The dimensions are:

- **Tiers**: O’Fallon conceptualizes three tiers of development, each apprehending an increasingly subtle category of objects, with each tier containing four stages of maturation (some versions of the model include a 4th Unitary tier). The first level, concrete, refers to a concrete level of cognitive development where the mind and senses apprehend concrete individual objects both within the exterior world and later the interior. This level of development is the realm of Piaget’s concrete operational thinking. The second tier, subtle, refers to a tier of formal operational development that apprehends subtle objects. At the next tier, the metaware tier, individuals have developed the capacity to differentiate awareness from the contents of awareness and are able to be aware of awareness itself.

- **Individuals/collectives**: Within each tier individuals are, generally speaking, aware of individual things and entities prior to collectives, groups, and systems, since the latter depend upon the former for their meaning. For instance, to have an awareness of complex family dynamics one must first understand individual psychology. Using only the 3 tiers and the Individual/Collective dimensions, one can define the 6 "person perspectives" of the model (see Figure A1).

- **Passive (Inside, 1st person)/Active (Outside, 3rd person)**. Each Person-perspective can be further differentiated into a passive and active half, yielding the 12 stages of the model. When one first learns something one begins by just being aware of it. One is receptive to its expression as one learns about it, it happens to you. With learning and practice there is the active repeated attempt to recreate the experience. Through repetition the state becomes more easily accessible. In a sense you have it rather it having you.

- **Exterior/Interior**: STAGES uses a fourth driver to specify sub-levels (half levels) within each of the 12 stages, which build up using first an exterior orientation then an interior orientation. Cognitively, exterior activity is understood prior to interior because one first applies a specific kind of cognition to the external environment before applying to oneself. Mark Forman (p.80, 2010) explains: “All the stages of identity development, therefore rely on different forms of outer-directed cognition eventually being used in the inner world of the self” Thus, an adolescent first applies formal operations to analyze and solve external challenges before applying formal operational thinking to the self. In doing so this transforms the organization of the self.
The STAGES model also includes an articulation of phenomenological "states," and the relationship between states and stages, that coordinates quite well with contemplative essence psychology, as described later (see O'Fallon's article in this issue).

Though STAGES is a relatively new model with limited empirical validation, the validation studies to date have shown very strong results. O'Fallon et al. (2020) describe a "replication study" that shows the STAGES scoring method replicates the prior Cook-Greuter/Loevinger SCT scoring method up to stage 4.5/Strategist. That paper also summarizes longitudinal data analysis including the upper levels, which shows evidence for the monotonic developmental sequencing of O'Fallon's newly defined highest stages (Metaware Tier). Murray & O'Fallon (2020, in this issue) used Item Response Theory and Rasch analysis to evaluate additional validity metrics, including: within-test item normality, item standard deviations, Cronbachs-Mesbah analysis of test lengths, factor/component analysis, item correlations, test strata/discrimination analysis, and overall test strength.

In this section an overview has been presented of the territory of adult development and particularly the lineage of constructive developmentalism initiated by Jane Loevinger, continued by Susanne Cook-Greuter, and more recently articulated by Terri O’Fallon. Through investigating adult development these researchers have uncovered stages of mature adult development, and the underlying developmental processes, that we can relate to the stages of contemplative development as articulated by the Indo-Tibetan essence tradition. While there are clearly some differences, what is of particular interest is that the Western research indicates these stages of cognitive and meta-cognitive unfoldment are perhaps not just constructed by the meditative process but are indicative of a more universal transcultural and human process. The developmental process is catalyzed by meditative development but there are other factors that support this growth such as cognitive complexity, relational intelligence, and differentiation from childhood psychological structures.

Below we summarize aspects of the model and reiterate, in a bit more detail than we did in the Introduction, why it is a very good fit for coordinating contemplative essence psychology and adult developmental theory.

- In STAGES the entire developmental sequence is based on non-conceptual modes of perception and awareness as they generate ever new distinctions (categories) in the mind. The exploration and development of what one is aware of is central to contemplative methods. Though most adult developmental models focus on the linguistic or conceptual aspects of meaning-making, STAGES grounds cognitive and metacognitive thought in their non-conceptual and concrete precursors, as is common in contemplative models. It maps patterns in the growth of mastery, and of transforming implicit knowing (subject) into explicit knowing (object) and meta-knowing (metacognition) – that repeat for each new category of distinctions. This too provides an excellent framework for representing aspects of contemplative essence psychology.

- The STAGES model is based on a progression of "Tiers" called Concrete, Subtle, and Metaware, and Unified, each representing increasingly subtle forms of objects of awareness. It coordinates closely with predominant neo-Piagetian models of cognitive
development, as its progression from Concrete to Subtle matches the cognitive progression for concrete to formal operations (abstract and logical thinking). Contemplative essence psychology likewise maps a progression of awareness (metacognitive capacity) of increasingly subtle mind/body phenomena – that can be mapped directly to the four tiers in the STAGES model.

- STAGES specifies a repeating nested pattern of unfolding within each tier, which involves moving from exterior to interior objects, from individual to collective objects, and from passive to active orientations to perceiving each type of object. These patterns in the unfolding of awareness map directly to principles in contemplative essence psychology (as we explain later).

- STAGES' treatment of the exterior/interior dimension maps to the "event perspective vs. mind perspective" used in the essence tradition.

- STAGES contains a sophisticated model of the relationship between stages of cognitive complexity, states of consciousness, and stable -stage orders of perceptions (views); that latter of which maps well to modes of operation (existential views, or basis of identity) described in contemplative essence psychology.

- STAGES describes the progression within each tier as: receptive, active, reciprocal, and interpenetrative. It follows contemporary cognitive science in noting that the perception of any object begins with unanticipated fleeting glimpses (receptive states), which with practice become stable skills for observing an object at will (active), and eventually become the automatic (unconscious, effortless, and "natural") perception of the object (interpenetrative). Essence traditions prioritize the attainment of levels of effortless "view," a sequence in the development of the "basis of operation" of awareness – which is well described by the interpenetrative phase in STAGES.

- STAGES fleshes out territory in the higher tiers to a greater degree than other models, and in a way directly analogous to contemplative essence psychology. It explicitly mentions awareness of awareness, the apperception of timeless awareness, spacious freedom, emptiness (of different forms), and fullness, which maps to concepts used in contemplative practice.

- STAGES includes a shadow-work model articulated according to developmental level, which coordinates well with the deconstructive and emptiness elements of the essence traditions. I.E. it explicitly includes and coordinates the contrasting elements of complexity/skillfulness/adaptation and freedom/deconstruction/liberation inherent in the essence traditions.

Next we will explore Buddhist contemplative essence psychology. We will make a few references there to adult development, but for the most part will save our integration of the eastern and western models until the section on "Integrating Contemplative Essence Psychology and adult Development."
2.3 Buddhist Essence Psychology: mahamudra and rdzogchen

In the introduction we mentioned how the Indo-Tibetan schools represented the third turning (paradigm shift) in Buddhism (associated with the term Vajrayana), specifically the mahamudra and rdzogchen schools, constitute a system of "contemplative essence psychology." And we touched on how they differ from earlier phases of Buddhism (the Hinayana and Mahayana traditions). The shape of these three turnings of Buddhism is further articulated in Appendix 3.

Contemplative essence psychology includes the Hinayana-based theories of mindfulness and contemplative psychology that are currently popular but adds theory and practices for the experiential understandings of the constructed nature of sensation, body, thought, self, time/space, dualistic perception, and the individuality of the attentional system which reveals a progression of metacognitive identity, or basis of operation, beyond self, time, and individuality.

Below we describe Buddhist Essence Psychology, which is discussed in more detail in Appendix 4, and in even more depth in Churchill (2018).

Mahamudra

Essence mahamudra refers to the approach of direct investigation into the nature of mind and it is comparable to the rdzogchen teachings of the rNing ma and Bon traditions (Ringu, 2007). The Tibetan Bon tradition locates its genesis in the shamanic traditions originating 9,000 years ago, while the Indian Buddhist tradition locates its initiation 2,500 years ago. As such, the tradition is a wealth of knowledge, and practice, that is still alive in the form of the five Tibetan lineages of the Bon, Nyingma, Kagyu, Sakya, and Gelug schools.

In order to understand mahamudra it is necessary to understand the concept of tawa (Tbt.) or dristi (Skt.) which literally means, view, meaning the view from which one experiences phenomena. Brown (2017) explains that the view is dependent upon the basis of mental operation (spod yu), the loci of identity, level of awareness or vantage point from where the mind’s metacognition is operating. In essence practice the meditations are less about meditating on something as they are about learning to operate from a new level of awareness, a new basis of operation, and from there to take a new perspective or view on experience.

According to Ras chung, student of Mi la ras pa, there are four main bases of operation: awareness fused with thought and self-structure, awareness beyond self-structure, awareness beyond temporal processing, and awareness beyond the information processing system. Each level is sequentially freer from the subtler and subtler reifications of unconscious psychological and perceptual structures.

Indo-Tibetan psychology is based on an understanding of four levels of mind, four main basis of operation; the coarse, subtle, very subtle and awakened. These are four levels of mental experience are always present in experience, but they are not necessary conscious. Whether a level of mind is made conscious or not is dependent on the level of view, the basis of operation from which identity is operating. The basis of operation shifts during meditation and initially this
will be a brief state but as practice continues the state will become a trait, and a permanent developmental stage of identity.

Each basis of operation has the capacity to view phenomena (take the event perspective) and the capacity of self-recognition (the mind perspective). The event perspective refers to the perspective of mental objects perceived at that particular level of awareness i.e. concrete objects such as the thoughts and subtle objects such as abstract patterns. The mind perspective refers to the perspectival capacity to self-reflect and recognize the level of awareness from which the mind is operating i.e. to make awareness (the subject) the object of itself.

In Appendix 4 we describe the four-yoga model of sGam po pa’s mahamudra. In it the meditator first calms the mind (shamatha), then by gaining insight (vipashyana) into the constructed nature of the self, time, and individuality recognizes awareness to be already beyond all structures to a basis of operation, buddha nature, without any reference points (Brown, 2006). The four methods described are: One-pointed yoga (calm/staying; shamatha), Non-discriminatory yoga (insight; vipashyana), One taste yoga (union of calm staying & insight), and Non-meditation yoga (mahamudra).

rDzogchen

rDzogchen, or "great completion practice," is the coordination and culmination of contemplative practice in the indigenous Bon tradition and the oldest Buddhist tradition in Tibet, the rNing ma. In the Bon tradition the lower stages focus on shamanic practice while the rNing ma model addresses the foundational Buddhist practices of the Hinayana. Both traditions then progress through Bodhisattva teachings on emptiness and compassion, and then Tantric approaches using visualization and yogic techniques to culminate in rdzogchen.

As the most pertinent example of the rdzogchen tradition we focus on the A Khrid system from Bon rdzogchen. It provides a systemized approach that parallels and expands upon the mahamudra four-yoga model mentioned above. In their translation of the A Khrid pith instructions, Brown & Gurung (2017) reveal how the commentary of the A Khrid divides practice into three main phases: bringing the unripened mind stream to ripening, bringing the ripened mind stream to liberation, and bringing the liberated mind-stream to the completion of Buddhahood.

The first of these prepares the mind for emptiness practices through methods including contemplating impermanence, setting clear intentions, and mentor-bonding. The second phase, of tasting and developing realization, contains the core elements of the contemplative essence psychology discussed in this paper. It includes ten practices leading to the capacity to operate naturally from awakened awareness, the level of lucid, open non-dual awareness, prior to the constructions of the information processing systems of perception, attention, temporal awareness, self-construct, emotion and cognition. The third phase describes esoteric practices that, given the base capacities of the liberated mind, expand that capacity into all aspects of the conscious and unconscious self, and into all daily actions and decisions; ultimately purifying the mind of all negative qualities and perfecting all positive capacities available to the human condition.
Awakening etc.

Though contemplative and religious traditions have a wide variety of meanings for terms like awakening, enlightenment, and realization, within the Indo-Tibetan schools there is fair agreement upon and precision in describing, if not the conceptual map and category boundaries, at least the forms of experience and capacities developed by various contemplative practices. The practice maps and experience maps can be quite detailed up through many stages of contemplative realization, and, though there will eternally be disagreements on the nuances within academic scholarship, the constructs described within the contemplative essence traditions have quite specific meanings.

Prajna: insight into impermanence, reactivity, no-self, and emptiness. In the essence tradition of mahamudra and rdzogchen, concerned as they are with the nature of awareness itself, metacognition is understood through the important concept of prajna (skt: prajna). This term technically refers to the experiential cognitive recognition of impermanence (anicca), reactivity (dukkha), no self (anatta), and in the Mahayana, emptiness (skt: śūnyatā). The term is sometimes translated as wisdom, discriminating knowledge, or insight (Buswell, 2013). Jna translates as consciousness, knowledge or understanding, and the term Pra is an intensifier that translates as higher, greater, or supreme. Training in ethics, concentration practice, and Prajna comprises the fundamental three trainings (sikkha) common to all Buddhist traditions. In terms of this work on Indo-Tibetan essence practice, prajna (Tbt:s hes rad) is synonymous with contemplative metacognitive insight. This metacognitive insight, particularly into the constructed nature of experience (śūnyatā) is what leads to the recognition of primordial awakened awareness known as jnana (Aky: jnana) (Tbt: ye shes). The distinction between prajna and jnana, metacognitive insight and primordial awakened awareness is fundamental to understanding the mechanism of essence practice. Ringu Tulku (2017), a mahamudra teacher in the Kagyu Tradition describes:

The word yeshe yé is short for yé né, which means ‘right from the beginning’ or ‘primordially’. Some people translate it as ‘pristine’ or 'pure', meaning that it is untouched and unstained, and has been there all the time. It is the way it always was. So yeshe is discovered with sherab. Yeshe is understood by sherab, or approached by sherab. Ringu (2017).

In other words, primordial awakened awareness is discovered and understood by metacognitive insight. He continues:

The difference between sherab and yeshe is very subtle and slight. But I think we can say that yeshe is the most natural state of our awareness or consciousness, which is unstained, uncontrived and completely ordinary. It is there all the time, but we don’t recognize it. It is sherab that brings about the recognition, but of course they are not two separate things. Ringu (2017).

Primordial awareness is always there, but one typically doesn’t recognize it. It is metacognitive insight that brings about its recognition, but these are not actually in essence separate, as metacognitive insight is an expression of primordial awareness.
Awakening. As discussed in the previous sections, the Indo-Tibetan essence traditions have been practiced as a form of psychological development in some form for thousands of years. The goal of the contemplative essence psychology of mahamudra and rdzogchen is the development of full human potential known as a Buddha in Sanskrit or Sangs rgyas in Tibetan (Buswell 2013). In Sanskrit, Bud means awakened and Buddha literally means awakened one. The Tibetan term gives more insight into the goal, Sangs means purifying, the purifying of emotional and cognitive distortions, and Gye rgyas means flourishing, the flourishing of the 80 positive qualities of an enlightened mind.

Awakening usually refers to contemplative achievements that are actually part-way on the path to Buddhahood, and one can experience aspects of awakening without its stable attainment, and while still early on the path of full purification of the mind. The process of purifying emotional and cognitive distortions is a goal that Western psychology also aspires to. However, the depth of awakening in the Indo-Tibetan tradition goes beyond the awakening from psychodynamic issues, and from dysfunctional cognitive and behavioral patterns that functioning in contemporary culture necessitates. This fruition of human potential manifests itself through:

- the different phenomenological dimensions that are fully cognizant through waking, dreaming, and deep sleep states known as the three-fold embodiment of unbound spaciousness (dharmakaya), lucid awareness (samabhogakaya) with non-dual geometric archetypal light fields (buddha realms), and the physical emanation body of everyday reality (nirmanakaya);
- the primordial wisdoms of mirror-like clarity, equanimity, discriminatory awareness, all-accomplishing executive functioning, and all-pervading spaciousness; and
- enlightened activity in the form of skillful application to reduce individual, cultural and social suffering and lead beings towards the realization of their full potential (Thrangu, K. 2011).

Omniscience. Omniscience (Skt. sarvajñāna; Wyl.ie rnam mkhyen), a term with metaphysical implications quite uncomfortable to our modern worldview, yet which is used somewhat uncritically in some contemporary spiritual communities to describe high stages of awakening, actually had a specific technical and, arguably non-metaphysical, definition in Indo-Tibetan Buddhism. For instance, the Bodhisattva Maitreya’s work the Abhisamayalankara, which is studied by all the lineages of Tibetan Buddhism, outlines eight topics of study, the first of which is omniscience. Omniscience refers to the culmination of the knowledge, skill, and direct experience of how to reduce suffering and increase happiness through each of the Buddhist vehicles of practice. The goal of the bodhisattva includes liberating all sentient beings from their suffering and pain, and developing these ten aspects of knowledge within them (Ponlop, 2003).

Along with meditative (and metacognitive) training, Indo-Tibetan Buddhist contemplative education also emphasizes cognitive training comprising knowledge in ten fields that have been the focus of the traditional course of study since the first monastic universities of Nalanda in India and Samye, and rDzogchen monasteries in Tibet. These ten fields can be reduced to five:
logic, language, medicine and healing, the arts, and the Buddhist science of mind. Maitreya, in The Ornament of the Mahayana Sutras (one of the five treatises of Maitreya) states:

If efforts are not made in the five sciences, even great beings will not attain omniscience. Therefore, to refute and to nourish, and to attain omniscience, make effort in the five sciences. Gyatso, (2016, p.42).

Recall that before modernity, perhaps in the Middle Ages and before, it was possible for an intelligent and dedicated individual to learn the basic elements of almost every field of knowledge. Today it is impossible to be a polymath ("Renaissance" man or women) in the same sense of having at least a theoretical grasp of most of the knowledge disciplines known to one's local culture. Like the child in awe of her parent, it may have seemed to those living "on the streets" in ancient times that such learned individuals actually "knew everything." In bygone times such a rare person was also poised to espouse meta-knowledge about the state of knowledge as a whole, including "how everything is connected" and the relevance or import of any aspect of knowledge.\(^4\) This is what was meant by "omniscience."\(^5\) It was not just about experiencing the depths (or radical emptiness) of consciousness, but also about accruing the practical knowledge allowing one to apply one's wisdom to many (or all) aspects of life, including in ethical and political domains.

There exists bias in the West towards seeing contemplative development as entirely a non-conceptual or metacognitive process. However, in actuality the psychological development of essence practice takes place within the context of a larger liberal arts education.

**Buddhahood.** Buddhahood is often described as the fullest expression of wisdom and compassion. Wisdom is defined in Buddhist contemplative psychology as the capacity for deconstruction and liberation from fusion with all cognitive structures so that the light of awareness never goes out whether in waking, dreaming, or deep sleep states. Compassion refers to the development of skillful responses to the needs of other beings. Compassion therefore does not just refer to an affective state, but to the construction of cognitive capacities and skills to understand and respond to practical reality in such a way as to reduce suffering and lead other beings in the direction of their full potential. This is the same process discussed in the research on ego development; the increasing capacity for defusion allows for deconstructive shifts in the fundamental basis of operation (wisdom), from which more complex adaptions to life circumstances can be made (compassion).

In the broader tradition of the Mahayana, within which the essence tradition is the quintessence, Buddhahood refers not just to a deconstructive liberation from all experience, but

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\(^4\) Of course, academics today do this by the thousands, but, each has only a very limited grasp of the full knowledge produced in their time.

\(^5\) In addition, from a more esoteric perspective, rigorous research into psychic phenomena indicates that it may be possible to obtain "non-local" knowledge (i.e. not constrained by space and time in the normal ways). Thus, though modern sensibilities prohibit us from considering anyone as literally "knowing everything," we can still consider the possibility that an adept could open perception or consciousness in such a way that they become a conduit for knowledge (as needed by others) that they did not previously "know" in the usual sense.
also a deeper integration and reorganization of cognitive structures brought about through a profound understanding of the various stages of practice and their pedagogical application in reducing human suffering.

Therefore, a Buddha is an awakened being, having fully purified the emotional and cognitive distortions of multigenerational traumatic conditioning, and opened to the omniscient capacity to lead other beings to that realization.

Though, from our contemporary context, Buddhahood can be interpreted as a horizon, a hypothetical state pointed to by a path, the various aspects of awakening and the outlined steps toward Buddhahood can be confirmed experientially and incrementally through dedicated practice.

3. Integrating Contemplative Essence Psychology and Adult Development

This section focuses on the mapping of the contemplative essence psychology of mahamudra and rdzogchen in terms of mature adult development and is informed by the literature on metacognition. We have three goals. First, to show that contemplative essence psychology contains many of the conceptual tools and pragmatic understandings of a well articulated psychology of adult development. Second, we will explore how contemplative essence psychology can inform modern developmental models, and can deepen the goals of modern psychology to support mental health, and psychological growth and transformation. Third, we will discuss how modern developmental models can inform contemplative essence psychology to make its principles more available to the modern mind.

In the modern western understanding of the structural stages of development, such as those developed by Freud, Piaget, Fisher, Commons, Loevinger, Cooke-Greuter, O’Fallon etc., has developed over the last 100 years due to the sophisticated maps developed from third person scientific research into the longitudinal growth of human beings through the life span. Yet the maps and practices of the mahamudra and rdzogchen contemplative traditions offer Western psychology a perspective and path of human potential evolution and flourishing previously unexplored in Western psychology, and that is deeply needed in the contemporary world.

This section begins by exploring the history of the east/west convergence, including methodological differences, and contemporary clinical and research advances. We then propose principles of human psychological growth that integrate the developmental and contemplative fields, starting with underlying mechanisms that pertain along the full arc of maturation, and then focusing in on the specifics of each stage or level in the journey.

The section also offers a glimpse into an integrative process that could engage many generations of future dharma practitioners and psychologists in the process of reducing human suffering and actualizing potential.
3.1 Contemplative vs. developmental psychology: Historical and methodological comparisons

East vs. West: Phenomenology vs. Structuralism and Theory vs. Application

While much of our discussion will focus on the overlap between eastern and western approaches, the distinction between phenomenological and structuralist approaches to knowledge helps to contrast the two and explain their complementarity. The modern west seems to have learned so much about the human mind – its pathologies and modes of suffering, its capacities and further reaches, and the relationship between the emotional and cognitive modes of decision making – and yet it has kept this wealth of knowledge at an "objective" distance from embodied application in the lived lives of citizens. We seem to be as, or more, unhappy and neurotic vs. any historical period or civilization. In contrast, the findings of eastern contemplative traditions are not "up to snuff" in terms of modern scientific proof, and yet have always been aimed directly at improving the lives of real practitioners and cultures.

Wilber (2006) clarified the difference perspectives of these two methods of mapping psychological experience, through a distinction between first-person phenomenology, associated with the contemplative tradition, and third-person structuralism, found in Western forms of inquiry. Indo-Tibetan contemplative psychology is an ancient first person subjective, phenomenological tradition developed through deep introspection and interior research over many generations. The only way at this time to fully verify the claims of the tradition is to engage in the meditative journey oneself, to carry out the phenomenological metacognitive exercises prescribed and to compare the results to those collated and systematized by the tradition.

Compared to contemplative psychology, the field of adult development research is in its infancy. The work on cognitive structural development by Piaget, Commons, Fisher and others, and the work on constructive ego development by Loevinger, Cooke-Greuter, and O’Fallon are third-person structural disciplines. These maps have developed from the objective scientific structural analysis of studying levels of cognition and ego complexity in relatively large population samples. This research has led to the development of pedagogical approaches to supporting psychological development and education, but the development of these methods has come from the outside in, not the inside out. Perhaps because of this, or simply because of its relative recentness, it yet stumbles to create authentic applications as large-scale as its data sampling.

While science (adult development research, but also brain research, socio-political studies, etc.) can clearly add to the contemplative essence psychology by validating and extending its principles, it is less acknowledged that the eastern schools offer a wealth of information about the experience of adult development, especially at higher levels, as well as a treasure trove of nuanced practical instructions about pitfalls, dead-ends, common traps, fast-tracks, and diagnostic principles for practice guidance, that could help the findings of adult development become more widely implemented and more deeply understood.

Within contemplative methods, the mahamudra and rdzogchen stages of practice lead to the maturation of the very subtle and awakened bases of operations through deepening degrees of
realization rarely considered in western psychology. They are also accompanied by greater phenomenological nuance with respect to this development than does the Western research into adult development since the former in fact articulates the precise and actual means to bring about the transformation. The lineage libraries of the Tibetan monasteries consist of many meditation root texts, practice manuals, and commentaries developed over at least 2,000 years. Each of the five Tibetan schools has specific perspectives on the theory and practice of contemplative development, and continues to train contemplatives in these inner sciences to this day. This cultural wealth amounts to massive amounts of interior phenomenological research that has yet to be translated and/or generally disseminated.

**East vs. West: Methodological Considerations**

In integrating the Eastern and Western "sciences" of the mind, we should be explicit about their methodological differences. For example, though both make use of rigorous intellectual/logical analysis within peer communities employing debate; Tibetan psychology does not have an extensive research on the early stages of development (with regard to cognition); while western psychology does not have extensive research on the late stages of development (with regard to meta-cognition). Above we also mentioned the "WEIRD" biases of Western psychology due to the lack of diversity of subjects in most studies.

In comparison to pre-modern methods of psychological inquiry, the Western "scientific" study of psychology has several characteristics that underpin its strengths, yet also underpin its limitations: (1) its focus has been (with important recent exceptions) upon pathologies (the "disease model") rather than normative or exemplary human functioning; (2) as mentioned, it has taken a keen interest in the study of children (which is absent in pre-contemporary psychological, philosophical, and religious inquiry); (3) the scientific method itself, which is suspicious of the biases inherent in subjective insight, experiential knowing, and intuition; and bases rigor upon measurement and replicability; (4) its universalist, non-metaphysical and atheist bent, which forbids justification based on explicit dogmas (though it is still usually blind to tacit cultural biases); and (5) it can use random sampling and longitudinal measurements to discover generic developmental and cultural patterns not discoverable by less rigorous methods.

Eastern knowledge creation methods have their own comparative strengths: (1) they take seriously the revelatory powers of contemplation and intuition, giving phenomenological inquiry a high status, particularly in the human sciences of psychology, ethics, wisdom, and politics; (2) they afford more authority to the judgment of (communally validated) adepts in the fields of consciousness and wisdom; (3) they are explicitly aimed at pro-social and emancipatory aims (thus their close affiliation with religious traditions), and thus at the practical needs of people to find meaning, reduce suffering, and maintain positive psychological states – in contrast to Western science which is often either at an "objective" (and thus disembodied) distance from such matters, or is heavily influenced by market and political incentive structures; and (4) the belief systems and injunctions they produce have been tested in grounded contexts and adapted for centuries, which, though it does not guarantee the same degree of "truth" rigor afforded by the scientific method, but guarantees a much deeper relevance, practicality, and resilience than the vast majority of scientific investigations can afford (unless they have been "put to the test" for a very long time in multiple life contexts).
Subjective insight into the nature of one's own mind and cognition can be very difficult to articulate verbally/conceptually. In fact the rich detail and nuance of any deep experience is similarly ineffable, and language can only serve as a tentative pointer for others who have had the experience being described, or who are searching for that experience. The performance of a skill, such as leading a large group or maintaining equanimity in the face of frustrating circumstances, can have little correlation with one's ability to describe or theorize about the skill – the classic distinction between procedural vs. declarative knowledge (e.g. Anderson, 1983). Western science prioritizes declarative knowledge that can be used to describe, explain, or technologically invent something; while Eastern frameworks prioritize procedural knowledge that can be experienced and used in human decision making and action.

Traditionally, the esoteric wisdom of adepts becomes encoded into philosophical texts, poetic metaphors, allegorical stories, and practice injunctions carried forward by a culture. Those raised within such cultures can be doing and experiencing things that encode deep wisdom about the human condition, even though the individuals involved have no reflective understanding or what, why, or how they are doing (though some in those cultures may have high reflective or scholarly knowledge in that domain). The western observer, focusing on the lack of sophistication of the commonplace practitioner, can easily dismiss such knowledge as frivolous. This misses the important facts that (1) knowledge/wisdom can be rigorously lived without be explicitly "known," and (2) knowledge/wisdom can be carried tacitly at the level of culture in a way that is relatively independent of the explicit knowledge of participants.

Cultural rituals, worldviews, texts, and artifacts can harbor deep forms of knowledge, honed over centuries or millennia of use and tuning, that can remain hidden within individuals and invisible even to whole populations – as unreflectively embodied wisdom that later cultures or individuals can mine to recover (or regenerate) as explicit principles. As the sources and iterative tuning steps of this knowledge is usually lost, the "proof" of their validity is in lived experience, and not in scientific demonstrations or arguments. Yet the long history of adaptive use and cultural replication within Eastern traditions offers forms of validity that complement, not just contrast, the experimental methods of the West. Though it is not the modern way to simply believe or adopt them based on the legitimacy of authority figures, we can yet respect and engage them as presumably encapsulating valuable encoded knowledge about the human condition and its flourishing, beyond our Western world view and current science, that can be decoded and used.

East and West: Early Convergences

Before the recent advent and popularity of mindfulness practices in the west, the deeper regions of theory and practice of Asian contemplative psychology was known by a relatively small group of psychologists and theorists who struggled to reconcile Eastern and Western conceptions of development (Alexander et. al. 1990; Washburn, 2000; Dale, 2013; Wilber, 2007/2017; Brown, 1986; Engler, 1984).

Early longitudinal research by Alexander (1982) into Transcendental Meditation (TM) indicated that TM meditation facilitated ego development, as measured by Loevinger’s (1976) test of ego development. The TM subjects, who were prison inmates, progressed over a 4-year period from Loevinger’s conformist stage to the Expert (self-aware) stage. In a second one-year
longitudinal study those inmates who were already meditating developed to Achiever (conscientious) stage, which corresponded to a dominance of mature abstract formal operations. However, Alexander’s research into meditation, which included prolific efforts, with some 30 publications, only examined TM meditation, and unfortunately, due to the fringe perception of TM in academia, his results were not taken seriously outside the TM community, and no further researchers explored the relationship.

**Mahamudra and Brain Research**

As seen in recent research (Schoenberg et al., 2018) an increasing number of Western practitioners are developing through the traditional stages of contemplative realization. As such, the next step in the research is to investigate those few individuals who are stabilizing awakened awareness and purifying the unconscious mind through the practice of automatic dharmakaya release (rang shar rangrol).

Most of the brain-imaging research related to contemplative practice has been done within the mindfulness paradigm. However, Brown and associates recently completed an important study including the more advanced states covered in mahamudra. Drs. Brown, Brewer, Schoenberg, and Churchill recently completed a study with 30 intermediate level meditators that elucidated these stages of mahamudra meditation as having clear and distinct neurological signatures common to meditators at each stage of meditation (Schoenberg, et. al., 2018).

The study gave the first neurophysiological correlates of discrete mental states during Indo-Tibetan essence-of-mind practice using electroencephalography (EEG). The contribution of this study was its focus on the process of awakening as discussed in this paper, and represents an advance over prior studies focusing on mindfulness practices. The two higher stages of mahamudra meditation, one-taste yoga and non-meditation yoga, were differentiated into four specific meditative stages with each yoga comprising two meditative states.

The EEG findings indicated two major patterns. The first was that the current density upon entering the meditation state weakened in comparison to baseline control conditions observed in all frequencies and regions of interest. It is hypothesized that this was because the foundation of essence of mind meditation practice is to shift out of the cognitive/brain effort-effortless axis into recognizing aspects of mental experience that are always already present.

The second main finding was that while the default mode network activity in the medial ventral pre-frontal cortex and posterior cingulate cortex did not significantly increase across meditative states there was a unification of enhanced beta and gamma band density magnitude increasing from meditation state1 (ocean and waves) through to meditation state 4 (stabilized non-meditation awakened awareness) that spanned the anterior cingulate cortex (ACC), precuneus, and parietal lobes. This separation of the default-mode network and the executive functioning system reveals an active executive functioning and yet non-self-referential pattern of activity i.e. the executive functioning of the brain was operational while the basis of operation shifted beyond the self-structure to timeless awareness and then awakened awareness.

The results also indicate that as progression of the effortlessness became stronger there was enhanced ACC (executive functioning/self-regulation), parietal and insular activation suggesting
the activation of brain networks associate with saliency, conflict monitoring, emotional control and shifts in perspective-taking that are inferred as supporting the very subtle meditative states of spacious awareness, non-duality, emptiness of phenomena, lucidity and referenceless.

Numerous EEG studies have revealed that EEG bands in the higher frequencies (beta, gamma) have been associated with the experiences of selflessness, non-judgmental awareness, and compassionate loving kindness (Schoenberg et.al, 2018). Our research showed that the anterior cingulate cortex (ACC), the central brain structure involved in executive functioning (working memory, theory of mind tasks, encoding reward prediction and prediction error, emotional regulation, cognitive processing), homeostatic physical states (hunger, thirst, awareness of breath etc.), and the encoding of stimuli valence through sensory modalities was active in the gamma bandwidth. This suggests enhanced activity of executive control capacities as they increasingly engage in maintaining the view as the practitioners shifted to deeper level of natural effortless meditation.

Increases in Gamma frequencies were also recorded in the parietal pathways of which the ventral stream relates to perspective shifting, such as from a first-person subjective perspective to that of a third person observer. Simultaneous to the continued activation of the parietal pathways, the self-referencing activity associated with the posterior cingulate cortex (PCC), part of the default mode network, remained deactivated throughout the stages of meditation. This was interpreted as relating to the phenomenological shifting from identification with the self (PCC) and to that of a referenceless basis of operation (parietal).

Beta frequency in the insular cortex associated with the metacognitive awareness and the modulation of interoceptive and emotional stimuli were also recorded. The researchers hypothesized that this was a possible neural marker for the non-preference or equanimity towards internal stimuli, which is a central marker of stage four, awakened awareness.

Further research is warranted, but one might hypothesize from the results that just as these states give specific neurological signatures so will the trait acquisition of these states as a permanent basis of psychological operation show specific neurological signatures. As practitioners engage in repeated meditative state practice, and the integration of the state into their lives, their basis of operation begins to permanently shift, and this is paralleled by a transformation in the neurological activity of the brain that can be measured. It is hoped that such research will support the legitimization of Indo-Tibetan contemplative psychology as a powerful means of reducing suffering and supporting the flourishing of positive mental states and altruistic engagement.

Clinical Implications

The adult developmental psychology of the Buddhist essence traditions has relevance to our understanding of psychopathology. It can be surmised that a path of contemplative practice that facilitates developmental would certainly make it easier to clear past developmental fixations. Forman (2010) in his text on integral psychotherapy noted that there has been little research on stages of adult development and psychopathology except that done by Gil Noam. In Noam and Dill’s study of 89 adults in an outpatient facility (1991) it was discovered that whilst psychiatric symptoms exist at every stage of self-development there “was a clear decrease in symptom
severity in those individuals with higher levels of identity [ego] development” (Forman, 2010, p. 95). This finding was also later corroborated with adolescents (Noam & Houlihan, 1990). Forman quotes the authors conclusions: “Correlations between identity development and symptom severity scores were uniformly negative indicating decreasing distress from psychiatric symptoms with increasing ego maturity, across all symptoms dimensions” (Noam & Dill, 1991, p. 214).

Further research into advanced practitioners of Buddhist Essence meditation, and psychopathology would be an important contribution since Noam’s research only tested subjects up to 4.0/Pluralist and none who had shifted a basis of operation to the metaware tier of ego development. The implications of snags rgyas, the flourishing of positive mental states in an enlightened mind, are profound for our understanding of mental health. The contemplative tradition teaches a means of treating the mind toward eradicating all negativity, so the mind becomes stainlessly clean (Tbt: dri med) and open. Within that openness the tradition's "80 positive qualities of mind" can flourish.

A study undertaken by Daniel Brown Ph.D. and Jack Engler Ph.D. (1986) revealed this potential in the Rorschach of a Theravadin meditation master. Rorschach data were taken from tests with meditators across the stages of contemplative development. Whilst intermediate meditators still showed signs of psychopathology and even personality disorders, the one Rorschach of the master showed that his intrapsychic structure had undergone a radical reorganization with no evidence of any sexual or aggressive drive conflicts, or any instinctual drive for that matter, pointing to the fact that there are no permanently opposed endopsychic structures at the core of the personality structure. This understanding of the possibility of the positive mind is essential to our understanding of mental health and the direction that investigation should pursue.

Further research into the phenomenology of the higher tiers of adult contemplative development will also reveal the subtler forms of pathology associated with these realizations. Essentially the crux of pathologies related to the different basis of operations, existential modes, is linked in the language of Indo-Tibetan contemplative psychology to the under or over application of emptiness. “Problems at any of those sub-phases will generate pathologies (for example, failure to adequately dis-identify or transcend creates a fixation or addiction; failure to adequately integrate or include creates an avoidance or allergy” (Wilber, 2017, p. 413). It will be increasingly important that these possible pathologies are understood so that psychologists trained in contemplative practice will be able to differentially diagnose and treat such pathologies.

### 3.2 Underlying Mechanisms in Contemplative and Developmental Growth

This is the first of two sections in which we will compare and coordinate contemplative and developmental models. In this section we focus on themes that address development as a whole, regardless of level. In the next section we focus on phenomena that arise at different levels. In other words, in this section we discuss the fundamental principles or underlying causal mechanisms of development and contemplative achievement, operating throughout all levels and explaining the transitions between levels. This includes patterns that repeat or reiterate several
times across the spectrum of growth. In the next section we describe both capacities and practices as they differ across the spectrum of levels. Remember that adult cognitive development and contemplative development are overlapping but distinct processes. The "levels" described by developmental vs. contemplative theories are related but different, as we will discuss.

State, Stage, and View

Wilber-Combs Matrix. Ken Wilber, an important innovator in the transpersonal psychology movement, was also an innovator in the field of adult development. He synthesized over 100 psychological theories of development, revealing general trends and principles (Wilber, 2000). Through this body of work he saw that the concepts of state and stage were not sufficiently differentiated in transpersonal psychology models and eastern spiritual frameworks. Wilber (2007) clarified the difference between states of consciousness and stages of development, and thereby helped a generation of spiritual seekers and contemplative practitioners to understand that achieving an esoteric or "spiritual" state experience, even stable access to such an experience, does not necessarily translate into stable psychological maturity. Wilber (and Alan Combs) proposed a matrix separating the stages of ego/self development from stages of state identity (i.e. stable access to fundamental states). Along a horizontal axis they plotted levels of experiential state-identity: Gross, Subtle, Causal, and Nondual (i.e. the modes of existential awareness, or bases of psychological operations). Along a vertical axis they plotted the levels of (ego-) self-development as described in this text.

The point being that the two dimensions are independent – one can achieve any of the state experiences in any of the developmental levels – but one's interpretation of that experience will depend on the complexity capacity and psychological sophistication appropriate to their developmental level. For instance, a pastoral nomad in medieval Europe (Magic), a Christian fundamentalist in 18th century France (Mythic), and a Wall Street executive (Rational), could be given the same instruction, and in practicing the same way, experience the same state of formless awareness, and perhaps even mature it into a basis of operation or experiential mode. Despite sharing the same state/trait experience, the individuals would likely interpret their experience in completely different ways.

Though Wilber focuses on the primordial states mentioned in eastern traditions, i.e. waking, dreaming, deep sleep, etc., we will use a more extensive meaning of "state." Simply put: a state is an experience. It is what is happening in the moment, and from a neurological perspective is about what is firing in the brain (in any moment). In contrast, stages are learned capacities, which from a neurological perspective, are stored in memory and are about the wiring of the brain (which changes gradually through learning, etc.). Put another way, stage are about structure and state are about activity (activation). The state experiences we are most interested in for contemplative essence psychology are those that can mature into stable "bases of operation" and which form important foundations for ego development.

Views (1) – state-stages. An important question is, what is the relationship between states and stages, and in particular, how does the experiencing of esoteric contemplative states (or "spiritual" states, flow states, etc.) effect one's stable traits? To a first approximation, the Wilber-Combs matrix argument is that there is no necessary relation – the state and stage axes are perpendicular, i.e. independent. But, clearly, contemplative practice does help people grow
psychologically. Wilber does not say that meditation does not facilitate self-development, in fact he alludes to Alexander’s research sharing that meditation can engage structural self-development as well as state-development: “In fact, meditation, can help move you an average of 2 vertical stages in four years” (Wilber, 2006, p. 137).

What we can say is that dedicated practices leading to state experiences can lead to stable intentional/skillful access to those experiences. And as any skill becomes mastered and used repeatedly, it eventually becomes internalized and normalized within the unconscious, so that it becomes automatic. Wilber and others have differentiated the trait changes (the modes of advancing or growing) associated with development from those associated with contemplative practice, calling the former states and the later state-stages. The Indo-Tibetan calls these views. One's access to a view matures from unstable access during meditation, to stable skillful access in meditation, to stable skillful access in everyday life, to becoming an automatic "basis or mode of operation" within normal cognitive processing.

Though to a first approximation (Wilber-Combs model) states and stages are independent, actually it is more accurate to say that certain stable state-stages are necessary but not sufficient for acquiring certain stages (see O'Fallon in this issue and Darrall-Rew & DiPerna, 2016). A number of writers (including Wilber, 2017; O’Fallon, 2016; DiPerna, 2014) have clarified that the state-based process of waking up is not necessarily the same as the stage-based process of growing up. All these theorists agree that access to, and the stabilization of, the higher stages of structural cognitive development are dependent upon the access to, and stabilization of, deepening degrees of metacognitive modes of operations.

We continue our conversation of view below at "Views (2) – as bases of operation." Next we explore the question: what processes are involved in creating these state-stages or views?

Unlearning, Disembedding, and Liberation

**Unlearning: constructive vs. deconstructive growth.** There is a prevailing opinion, implicit or explicit, that the later states of growth in psychological maturity and complexity necessarily track with later levels of spiritual or contemplative realization. However, suspicions that the two are actually distinct have been deep in recent times, with the many disappointing, and to some shocking, stories of "awake" or "enlightened" spiritual teachers who have committed moral breaches or other severe errors of judgment (Arterburn & Felton, 2001; Bell, 2002). Deep spiritual states don't necessarily lead to practical wisdom. The Wilber-Combs principle that states and stages are independent explains this in part – but there is more we can say about it.

The difference between spiritual growth and cognitive growth is clarified in noting that cognitive development is mostly a process of additive growth, while most contemplative practices aim, in part, to deconstruct cognitive conditioning (McKee & Barber, 1999; Murray, 2018). Let us consider the importance of deconstructive learning, or unlearning.

As noted by developmental theorists (see section 2.2), the maturation of human cognition involves the accumulation of concepts, skills, and perspectives over time – through processes of differentiation (perceiving ever more nuanced differences and details) and integration (conceiving of ever larger gestalt wholes and general concepts). These build up hierarchically,
layer upon layer, from sensorimotor operations to concrete thinking and then "formal operational" abstract thought and beyond. Each piece of learning can be thought of as both a new tool that creates fresh capacity and opportunity, and a new binding or set of associations and assumptions that constrains the possibilities of future thought and action. For example, learning how to ride a bicycle or do multi-column multiplication creates new capacities; but also, as these skills are practiced and embed themselves into lived experience, learning them tends to make it less likely that one will learn and experience alternative ways. Beliefs about the self and skills associated with one's sense of self are particularly resistant to change and adaptation. Experiencing alternate approaches often requires unlearning and disembedding from learned patterns and assumptions (see Murray, 2019, on "unknowing"). One must often free oneself from the old to make space to constructing the new. There are obvious examples where unlearning is called for, for instance, when one comes to believe that one is not good at math, or that people on the other side of town are not to be trusted – but the applications of unlearning are broader than is usually recognized.

Hierarchical complexity models of development in the Neo-Piagetian schools (including Commons, Fisher, and colleagues) deal primarily with additive growth. While ego development (Loevinger, Cooke-Greuter, O’Fallon, and colleagues) differs in that it includes both additive learning and deconstructive unlearning. In ego development each unfolding stage of cognition (sensorimotor, preoperational, concrete operational etc.) leads to a metacognitive application of that level of intelligence towards the internal world of the psyche. This allows one to see the limitations of prior learning and either contextualize the prior learning by transcending into a wider perspective, and/or correcting or dismantling the prior learning. Both moves lead to new modes of freedom and choice.

**Disembedding – self from content to context.** As we have indicated, in many contexts in order to learn something new one must unlearn an existing structure. More precisely, what is usually needed is to distance or disembed oneself from the prior structure to clear away sufficient clutter and open up cognitive and behavioral space so that one can experiment with new objects and configurations of thought. This inhibits interference from habitual patterns that would crowd out the growth of new patterns. After the new learning is well established, one can then choose to revisit and integrate the old way with the new way, expanding the options available to respond to diverse contexts. In sum, unlearning is disembedding from, not erasing, prior cognitive conditioning.

In fact, the life-long process of ego (and meaning-making) development involves perpetually recurring phases of learning and unlearning. For example, to advance into formal operational thinking must critique, deconstruct, and/or disembed from conventional thinking and assumptions; while moving from formal operational to post-formal operational likewise involves dissembling from many of the assumptions of formal operational thought. Learning and unlearning occur at, and define, each major junction of development.

Creating this cognitive distance amounts to taking a broader perspective on prior conditioning, as in Kegan's process of reflectively turning subject into object – we come to see and evaluate a part of ourselves that was previously hidden. The ACT model (Hayes, et al., 2013) describes this as a shift in psychological operation from self as content (i.e. from fusion with a conceptualized narrative of self) to self as context, in which one operates psychologically as the observing self.
The pre-differentiated phase of cognitive processing is described as cognitive fusion or embedding. The term defusion (or cognitive defusion, Hayes, 2011), is another term for this process of constructing a part of the self that observes (reflects on) another part of the self. It is also known as disembedding, de-reification (Dorjee, 2013), reperceiving (Shapiro & Carlson, 2009), decentering (Safran et al., 1993), deautomatation (Deikman, 1982), and detachment (Bohart, 1983).

Thus, as an infant grows into childhood there is both a growth in the increasing complexity of cognition and affect, and simultaneously a greater degree of being able to defuse from the objects of experience at ever deeper or more entrenched layers of the psyche. Ideally, over a lifetime this leads to greater freedom and simplicity. Unlearning can also be thought of as a letting go of, a liberation from, a seeing-through, or a deconstruction of some aspect of the self or meaning-making apparatus, and in so doing opening to a wider view of reality (and self) that is not constrained by that conditioning. "Insights" develop through or leading into this wider space. Insights can include deconstructive revelations that "[such] is actually not (necessarily) true," and constructive knowledge that "therefore [such] is (possibly) true."

Phases of development are represented in the STAGES model through its articulation of the receptive (passive), active, reciprocal, and interpenatrative phases of each tier. Each phase involves a different type of metacognitive process. The receptive phase occurs when one has disembedded from the prior world-view, creating enough distance to open to new types of objects in awareness (related to Kegan's subject-to-object process). At first the learning task is simply to recognize these objects (raw awareness). Further development (active) leads to the ability to compare, contrast, and order them (and to a fascicle ability to experience arisings without being merged with them – detachment). Further development (reciprocal and interpenatrative) leads to the integration of the new knowledge with what was distanced in the prior worldview (assuming development progresses in a robust way). This process of progressively deepening insight shifts the individual from temporary states of functioning to possession of enduring psychological traits (i.e. from states to stages). This contemplative mechanism of being aware without mental engagement in the contents of awareness is central to the process sequence of: (starting with passive fusion), passive raw awareness, active and reciprocal differentiation, and interpenetrative integration drives psychological growth through all stages of ego development (Wilber, 2000; O’Fallon, 2013).

Levels of emptiness. Contemplative essence practices aimed at this goal are also called "emptiness practices" – i.e. the contemplative metacognitive practice of examining direct experience to recognize its constructed nature, as it matures through the stages of contemplative practice. First the student learns the theory (i.e. conceptual map), that everything one experiences is constructed by the mind, and decomposable into parts ad infinitum. This idea is examined conceptually as it relates to the objective and subjective worlds of experience. This cognitive understanding is then matured through a series of progressive metacognitive practices examining specific psychological structures. The examination proceeds in phases with the decentering of the: body, self, emotions, thoughts, time, duality, core beliefs, and attentional system.

Emptiness practices makes visible to awareness tacit assumptions that construct one's sense of self and understanding of world. To make these constructions objects of awareness is to motivate the deconstructive move of perceiving reality absent of them. The result is not necessarily as
much a "truth" as a perspective one learns to take. That is to say, one does not so much discover that body, self, time, concepts, etc. "do not exist," but rather that the ways they appear to us are constructions of the mind. Thus "emptiness" in these traditions does not take the nihilistic meaning of knowing (for sure) that something does not exist, but rather indicates the freeing capacity to choose to perceive the world absent of certain assumptions or modes of conditioning.

Unlearning can happen at many levels. Learned knowledge, beliefs, and practical skills can be unlearned or re-framed when reflective metacognition shows them to be inadequate. Psychotherapy is usually a process of bringing to awareness, then evaluating, and then disembedding from, beliefs and learned habits that negatively impact our relationships or everyday happiness. The unlearning that is of interest to us here involves the even deeper cognitive structures that define one's sense of identity and manufacture the contents of one's familiar experiential field. Compared to western psychology, contemplative traditions provide a more precise map of the process of unlearning the self-system and the perceptual system, that subsist at more primitive/foundational levels of the mind. The meditative processes outlined by the traditions of mahamudra and rdzogchen support deconstructive insights into the constructed nature of reality (in perception, conception, and belief).

We can expand upon the notion that deconstruction (unlearning) can target specific levels of early/foundational development. Very early the infant learns to process the unintelligible buzz of sensory input to perceive individual objects as recognizable objects. At some later point one constructs one's perceptual "understanding" of time, and of space. Later one learns that, among this activity of perceptual objects and events moving in time and space, some are mine, i.e. those that I have control over and feel as my body. Later in the development of the self/ego one learns that images that arise from memory and imagination can be distinguished from perceptual images, i.e. one learns to differentiate the duality of the interior vs. exterior worlds (imagination and really begin to separate). Eventually the infant begins to learn that objects have names, and language and conceptual categories (classes defined by durable features) begin to form. Along this path one also learns that the feelings and needs one experiences are distinct from the mother's (i.e. that others have their own interiors, needs, and experiences), unmerging self from other to build the first steps into autonomy.

Each of the early constructions noted above are essential to human functioning. Yet each also locks one into a particular mode of perception, conception, and being, and becomes the unexamined unconscious ground from which one acts. Disembedding from each of these foundational structures has its own particular results. (Results which contemplative traditions valorize, but which might also be seen as hazardous for some individuals.) Each of these types of conditioning (learning) was constructed in its own time and level within the cognitive architecture. Different techniques may be needed to disembed from each of these (though some techniques will target more than one of them). The Indo-Tibetan traditions specialize in elaborating exactly such a diverse toolbox of methods, which the contemplative essence schools have attempted to coordinate them into a coherent system.  

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6 It is also the case that individuals will differ on what method or "trick" works best for them to see through any given type of conditioning, and the traditions offer a variety of approaches to each goal.
Eastern scholars have contemplated this territory deeply, but modern cognitive science is also discovering much about the fine-grained sequences of acquiring these skills (in part through the study of infants and children, something the wisdom traditions did not do). It seems possible that specific contemplative practices and contemplative states can be mapped onto this progression of infant (and beyond) development. States and state-stages such as thought-free empty awareness, no-self, non-dual merging of interior and exterior realities, timeless presence, vast spaciousness of open awareness, etc. – can, theoretically, be mapped to specific layers of early cognitive processing being uncovered in cognitive science.

**Supports for cognitive defusion.** Into/Tibetan contemplative essence psychology and theories of contemplative metacognition prescribes a number of methods and principles for achieving/supporting the process of cognitive defusion (disembedding, etc.) at various levels of cognitive processing. Here we can draw from our tour of the literature on metacognition and contemplative practice. *Concentration* practices create focused awareness and inhibit distractions; and include attitudinal adjustments (e.g. equanimity) that support open awareness. For example, Hayes' ACT model includes “the creation of nonliteral, non-evaluative contexts that diminish the unnecessary regulatory function of cognitive events” (Hayes, et al., 2013 p.4). ACT (and MBCT) teach the client to come into direct experiential contact with the present moment (rather than being dominated by conceptualizations of the past and future) and, rather than attempting to alter the form, frequency, or intensity of cognitive experience (experiential avoidance), learn to accept it and be curious about it (Hayes et al., 1996).

We have noted that affective cognition is closely tied to the rest of cognition. For cognitive disembedding to serve its purpose in psychological healing and liberation, it must be accompanied by an attitude of acceptance (equanimity). If prior learning is rejected, distorted, or repressed without being re-integrated, this can lead to psychological dysfunction (Wilber, 2017).

In the psychotherapeutic disembedding from identification with dysfunctional experience such as maladaptive thoughts, negative beliefs, reactive emotions, and traumatic sensations, the client is able to develop perspective on their experience that allows for transformation. According to Yates (2017) mindfulness recodes the information from the object level so the dissociative processes of internal verbalization and defense mechanisms, which distract from immediate experience, do not distort it. This process of decreasing temporal dissociation reduces cognitive fusion (“the tendency to buy into the literal meaning of thoughts, feelings and bodily sensations” Herzberg et al. (2013, p.1)). This is supported by (Dahl et. al., 2015) research done on how the attentional practices of meditation stabilize the self-regulatory meta-level (Jankowski and Holas, 2011) of the metacognitive attention (Yates, 2017).

**Views (2) – as bases of operation.** Picking up our discussion of view from above ("Views (1) – state-stages"), the concept of view is central in mahamudra. *View – tawa (Tbt.) or dristi (Skt.) – literally means the view from which one experiences phenomena. We mentioned above that a view is a stable state-stage in Wilber's terminology. Though some treatments focus on one particularly significant state-stage, noting that establishing "the" correct view is an essential milestone, we will speak of views in the plural.

Above we mentioned how cognitive defusion (unlearning, subject-to-object shifts, emptiness practices) help establish a view. But what exactly is a view? In the most general sense, views are
modes/levels of *perceiving* the world, while stages are modes/levels of *conceiving* (making meaning of) the world. The developmental stages of meaning-making (and ego development) are largely about what one can see, recognize, reflect upon, and contextualize – primarily manifested through language. This constitutes an explicit conscious capacity to demonstrate understanding of something using one's conceptual apparatus. A view is more perceptual than conceptual, and does not require verbal elaboration to be achieved. Referring to our distinction between meta-knowing, meta-sensing, and meta-thinking, the view is a type of meta-sensing. We might also say that a developmental stage involves focusing in to "grasp" an object, "peer" into its details, and "link" it with other objects as a larger whole; while a view is a capacity for open awareness that steps back/out to take in the whole as a field, and forms a ground or space of potential within which objects can arise – perhaps to later be grasped (focused on). (Though practices that help establish a view will also use focusing practices.)

The different layers of cognitive processing noted above imply a differentiation (perhaps even a hierarchy) of views. Contemporary psychological models of metacognition and contemplative practice talk about views, but have yet to fully tap the knowledge within contemplative essence traditions. For example, Dorjee’s (2013) model explicitly acknowledges the need to better articulate the progression of views, which they call "modes of existential awareness," which come from the increasing degrees of de-reification achievable with contemplative practice. Our analysis here argues that views are more adequately defined by what layer(s) of perceptual/conceptual habits of mind have been deconstructed/disembedded than by a hierarchically built-up capacity. The more advanced "higher" views come from more flexible/free bases of operation at deeper layers of cognition.

Brown (2017) explains that the view is dependent upon the basis of mental operation (spod yu), the loci of identity, level of awareness or vantage point from where the mind’s metacognition is operating. In essence practice the meditations are less about meditating on something as they are about learning to operate from a new level of awareness, a new basis of operation, and from there to take a new perspective or view on experience. The process of contemplative development as outlined in the essence traditions is a metacognitive process of learning to shift the psychological basis of operations to deeper and deeper levels of awareness.

One's access to a view matures from unstable access during meditation, to stable skillful access in everyday life (when one consciously chooses it), to becoming an automatic (natural) basis or "mode of operation" within normal daily cognitive processing. As awareness becomes liberated from confused identification with the contents of consciousness it is eventually is able to recognize "primordial" aspects of its nature. With each new basis of operation, a field of new types of objects (phenomena) is available to conscious awareness. As in O'Fallon's receptive phase, at first this new field may seem empty-yet-pregnant, or vibrant-yet-elusive. But, with practice and time, new types of objects take form, and are seen to arise clearly within this newly expanded field, and can be objects of reflection, comparison, manipulation.

**Mind vs. Event Perspective (figure and ground in contemplative practice)**

Let us return to an aspect of metacognition mentioned in Tashi Namgyal's (2006) elaboration of one taste yoga: the mind perspective vs. the event perspective. Each basis of operation (state-
stage or view) has the capacity to view phenomena (or content, i.e. taking the event perspective) and has the capacity of self-recognition (through metacognition, i.e. taking the mind perspective). The event perspective refers to the perspective of mental objects perceived at that particular level of awareness i.e. concrete objects for the concrete tier and subtle objects (such as thoughts) in the subtle tier (and awareness itself for the metaware tier). The mind perspective refers to the perspectival capacity to self-reflect on subjectivity and recognize the level of awareness from which the mind is operating.

In One Taste Yoga, establishing the view involves exploring the timelessness of the spacious phenomenological field of perception, and then recognizing the nature of the awareness that perceives such a field – thus shifting from event to mind perspective. Tashi Namgyal (p. 225) lays out three stages to the actual identification of the spontaneous coemergence: “When the meditator perceives the clarity of perceptive form and its unidentifiable emptiness as being the inseparable, denuded union of appearance and emptiness or emptiness and appearance, he has gained insight into the intrinsic coemergence of appearance” (p. 233). Brown (2005) calls these mind-simultaneous, cognition-simultaneous, and appearance-simultaneous views.

The complementary abilities of focusing attention on specific details or parts, and open monitoring of the perceptual field (i.e. zooming out to see contexts and wholes, like scanning in peripheral vision) have been identified as primary or core cognitive functions (Ainsworth et al, 2013; Fujino et al, 2018; McGilchrist, 2019). Open monitoring is not necessarily open to all phenomena in the moment, but is a vigilant yet relaxed seeking for any phenomena within some bounds (called "still hunting" by Bonnitta Roy – personal communication). For example, one can open one's perceptual field to awareness of "all moving things," "all red things," "all sounds," or "all thoughts" that might arise in any moment (opening to every phenomena arising in any moment is quite difficult and perhaps impossible, but see, for example, Shinzen Young's "cross training" methods of opening to inner sight, sound, and touch separately and then in a coordinated fashion (2016a,b)).

The mind perspective adds an additional shift to this open monitoring. It moves from the outward-facing open monitoring to sensing the subjective field itself – a figure-ground switch like seeing the frame holding a picture, which is very close to, or yoked to, the inward-facing sensing of the organ of perception of that field. In the still-hunting of the deer hunter, one maintains a relaxed open gaze anticipating movements that might reveal the prey. But it takes only a slight sift of perspective to notice the open field itself, which in this concrete case means the expanse of grass and shrubs, moving slightly in the breeze, covered by open sky; and another slight shift to feel into the nature of that open space – e.g. its expansiveness, the lushness of its texture, the warmth of its color pallet...; and yet another slight sift to become aware of the looker (the hunter) and notice these qualities as qualities one is feeling coursing through one's body; as a still point of observation that is both apart from and a part of the field.

In the case of contemplative practice, the shift is to noticing that some "I," or awareness-looking-through-my-eyes, or awareness-itself (perhaps just different meaning-making metaphors for the same phenomena) is doing/being something that is experiencing the phenomena. (The event-vs-mind perspective shift can be demonstrated at the concrete level by shifting from feeling/exploring an object, say a pen in one's hand, to experiencing the hand from the inside as touching/feeling/exploring the pen.)
The application of these core processes of focused awareness vs. open monitoring (and event vs. mind perspective) reiterates through developmental tiers, first within sensory-motor perception of the *concrete* world, and later with ability to metacognitively direct thought itself in the *subtle* tier. (At the *metaware* tier the process reiterates with a deeper awareness of the mind-body system as an integrated whole, including apperception of aspects of the unconscious revealed through somatic signals, and an awareness of awareness itself.)

The STAGES model can be used to tie this aspect of mahamudra to developmental theory. STAGES posits that each developmental stage starts with an exterior (other-oriented) orientation and matures to interior (self-oriented) orientation. STAGES scorers can distinguish "early" vs. "late" phases of any of the 12 levels by assessing the exterior/interior dimension within language cues. We suggest that the exterior orientation can be mapped to the event perspective, and the interior to the mind perspective. In this treatment mahamudra informs developmental theory by adding details about the practice of mind-vs-event perspectives; while developmental/cognitive theory informs, or empirically confirms, the mahamudra model.

Psychological science indicates that self-understanding is often preceded by understanding of the external world. For example, a child learning about the concept of anger (concrete) or prejudice (subtle) will see it as a negative characteristic of others well before seriously considering "am *I* prejudiced [or angry]?” As Forman notes: “All the stages of identity development, therefore, rely on different forms of outer-directed cognition eventually being used in the inner world of the self” (2010, p. 80). Similarly, STAGES proposes that new objects of awareness are recognized outside the self first, and within the self later – i.e. that exterior awareness precedes interior awareness, and that this pattern iterates for every developmental fulcrum.

Here we should clarify what is meant by exterior vs. interior, which is actually, as Forman calls it, outer-directed vs. inner-directed, or about you/they/it vs. about me. I.E. this is not a classification of objective (or 3rd person) phenomena vs. subjective (first person) phenomena, since one can be thinking about both the behavior (external or concrete) or the cognition (subjective or subtle) of another person (vs. oneself).

The outer-vs-inner directed (exterior-vs-interior in STAGES terminology) maps directly onto the event vs. mind perspective in mahamudra, if we treat exteriors as the content of perception/cognition and the interior as the metacognitive process of becoming aware (making object) that mental content or process. Logically the content must come first – one must be able to notice objects in the field before scanning the field itself for possible instances of those objects.

In the inner-directed phase of each developmental fulcrum the individual is using the sophisticated cognition that they have developed in cognizing about the *exterior* world, and are now directing that cognition towards the *self* in the form of metacognition. This process then re-formats the self-structure according to the new higher order cognitive actions. As such, each level of cognitive complexity has an associated level of metacognitive complexity, and a new understanding of the self-structure. (This also implies that the notion "going beyond the self" is ambiguous, since what one identifies with shifts at each level, into ever more subtle and decentered phenomena.)
In contemplative essence practice a toggling is apparent between the object and subject, as well as between the event perspective and mind perspective. For instance, during the process of developing attentional capacity the practitioner begins by developing the ability to stay on an object from the event perspective. Once stability is developed the meditator learns to switch perspectives and meditate from the mind perspective on the inherent spaciousness, non-reactivity, lucidity, and knowingness of awareness. (To say it another way, one shifts from the content of experience to the meta-cognitive contextual awareness of the experience.) When the aspirant begins to study emptiness he or she would also first come to understand emptiness through its application in the analysis of everyday objects, the most common approach being Chandrakirti’s sevenfold reasoning (Pianka, 2009). Once one has the conceptual understanding that the human body, a car, etc. can be broken down into innumerable parts, none of which constitutes a body, then that same analysis can be non-conceptually applied in meditation to the self-structure leading to a recognition of a level of awareness beyond the self. This same pedagogical process of focusing first on the event repeats itself to support the recognition of the space-like nature of awareness during one-taste yoga, and the recognition of referenceless awakened awareness during non-meditation.

In the next section we will illustrate the interplay of mind vs. event perspectives sequence over several levels (3.0 to 6.5).

**Summary: Repeating Patterns**

We have noted several inter-related processes that repeat or reoccur periodically through the entire developmental sequence: (1) the movement from receptive (passive) to active to reciprocal to interpenetrative modes; (2) movements of learning, unlearning (or disembedding), and re-integration; (3) the movement from state experiences (first as glimpses and later at will), to steady automated state-stages or views (which create awareness capacities that enable particular fulcrums of development); and (4) shifting between event perspective and mind perspective (mapping to STAGES outward/exterior vs. inward/interior focus).

From the metacognitive literature we can also note (5) the interplay of attention and intention (as attention to intention, and intention on attention). Once metacognition brings the nature of this interplay into awareness, one can de-activate the processing involved in attention and intention to develop choiceless awareness (just sitting) as an automatic, natural process.

We have also noted, from the STAGES model, (6) the pattern of growing from understanding individual objects to collective objects, which can also be understood from MHC (Commons' and Fisher's theories) as increasing complexity from the awareness of objects in isolation, to perceiving relationships between objects, to seeing ever more complex systems of objects, to having those systems so fully integrated that a new whole emerges at a new level. Within the contemplative psychology of the Mahayana this shift from individual to collective relates to the shift from an individual and personal experience of awakening to the recognition of the universal interconnected and interdependent matrix of reality that is a collective. It is a shift from an apparently awakened ‘me’, to an awakened ‘we’. This shift in realization has a profound implication to ethical and moral behavior as the individual realizes that their personal spiritual unfolding actually co-arises and is inseparable from the spiritual unfolding of the larger social body and by extension all sentient beings.
All of these patterns are described in the scientific psychological literature in terms of basic functions of the mind, and they are present in the Indo-Tibetan contemplative essence tradition through practices meant to support human liberation. This tradition elaborates, in successive levels, the metacognitive refinement of psychological insight into the constructed nature of human experience; and does so with practice injunctions that support the experience and embodying of these states and stages, vs. the mere objective (disembodied, conceptual, theoretical) understanding of them.

3.3 Levels of Developmental and Contemplative Growth

In this section we shift from describing repeating or iterating patterns of developmental capacities and practices to describing capacities and practices as they differ across the spectrum of levels. Here again, the contemplative essence tradition can be seen to coordinate well with modern psychological and cognitive theories.

Tiers: Gross, Subtle, and Causal

We will start with the large-scale structure of development, sometimes described as a progression of "tiers," and we will later discuss finer grained phenomena per level (by stage). As mentioned above, standard western psychology has elaborated on the significant movement from concrete operational to formal operational thinking, where the latter includes the adult capacities of abstract and logical reasoning. These shifts can be seen as emergent leaps in the types of objects that one can be aware of (and thus coordinate and manipulate). Fischer's Skill Theory refines the idea to specify these tiers: sensorimotor operations, representations, abstractions, and principles – where the first two are concrete operations, the next two are formal operations (Fisher, 1980). Common's model adds a higher tier for paradigms, making way for "post-formal" and post-post-formal operations (Richards & Commons, 2002).

As has been described, these models map cognitive complexity alone, while ego development models include the application of complexity capacity to the interior domain of the self, or the domain of the ego-involved, and thus describe processes of unlearning and disembedding that map transformations of the whole self, opening up ever wider fields of perspective and state-stages of awareness. (Remember that this describes the ideal case, in which increasing heights of complexity coordinate with increasing depths of state-stage development – while, in less than ideal, yet common, cases height and depth can develop separately, as noted in the Wilber-Combs principle.) O'Fallon's Concrete and Subtle tiers map to the concrete and formal operations and of other models, and she adds a post (or post-post) rational tier called Metaware, in part influenced by Wilber and his descriptions of the spiritual aspects of the post-rational territory.

Wilber's and O'Fallon’s models are strongly influenced by eastern models, which describe three fundamental tiers: gross, subtle, causal. Drawing on the Indo-Tibetan tradition, we can expand this to include four levels:

- The coarse (or gross) level of mind, which has a basis of operation of awareness fused with body, thought, and self structure, and is also the foundational metacognitive mode of the concrete tier of development (STAGES Concrete tier, 1.0-2.5). O'Fallon extends the
mahamudra notion of View into the lower tiers, suggesting that developing View at this
tier involves the ability to simply focus attention on concrete objects (individual and
collective).

− The subtle level of mind, which has a basis of operation of awareness beyond the self-
structure, and is the foundational metacognitive mode of the subtle tier (STAGES Subtle
tier, 3.0-4.5). According to O'Fallon, the basic View of this tier involves the ability to
focus on the objects of thought, including subtle feeling states.

− The very subtle level of mind, which has a basis of operation awareness beyond
temporal/spatial processing, and is the foundational metacognitive mode of the metaware
tier (STAGES Metaware tier, 5.0-6.5). For O'Fallon, the view at this stage can also include
awareness of the meaning-making process happening in real time (leading to construct
awareness).

− And, the awakened level of mind, with a basis of operation beyond informational
processing of the intentional/attentional system, and which is the foundational
metacognitive mode of the unified tier (STAGES Unified Tier, 7.0-8.5).

Seen through the STAGES model, contemplative psychology provides the theory and means
for recognizing the bases of operation that are the foundational identities of the higher tiers of
development (metaware and unified) necessary for advanced adult development. From the
perspective of Indo-Tibetan essence psychology, contemplative practice focuses on the
knowledge and skills to support the recognition of new contextual existential modes of
awareness, basis of operation, and the integration of perceptual and mental content into those
basis of operations. As seen in Table 1 below, the direct relationship between the tiers of
development, levels of mind, and basis of operation allow for a potential theoretical integration of
these theories.

Table 1. Tiers of Ego Development, Levels of Mind, and Basis of Operation.

<table>
<thead>
<tr>
<th>Tier of development</th>
<th>Level of Mind</th>
<th>Contemplative Bases of Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete</td>
<td>Gross</td>
<td>awareness fused with body, thought, and self structure</td>
</tr>
<tr>
<td>Subtle</td>
<td>Subtle</td>
<td>awareness beyond the self-structure</td>
</tr>
<tr>
<td>Metaware</td>
<td>Very Subtle</td>
<td>awareness beyond temporal processing</td>
</tr>
<tr>
<td>Unified</td>
<td>Awakened</td>
<td>beyond localized informational processing of the attentional system</td>
</tr>
</tbody>
</table>

Concrete and Subtle Tiers – practices and capacities

1st and 2nd PP religion and practice. When eastern spiritual and contemplative teachings
were brought to the west in the mid-twentieth century they were somewhat distorted – modified
to suit western cultures, and perhaps also biased because of common characteristics of eastern teachers who would be drawn to teach in the west, leaving their cultures behind. What was generally lost is the importance of foundational practices within what we would here call the concrete and tier (and also but to a lesser degree, the subtle tier). Spiritual seekers and contemplative enthusiasts usually imagine they seek some state or stage beyond the norm. Though spiritual and contemplative practices almost universally reiterate traditional teachings about ethical and physical foundations, it is easy for these to become attenuated in western culture – as if "we already have that taken care of," when in fact, the opposite case could be made that it is in the ethical sphere and the early psychological "attachment" domain that the West is most lacking and/or pathological. That being said, many are indeed inspired by the ethical principles and moral narratives brought from the East; and body-based yoga practices have obviously proliferated in the west.

As in other religious traditions, most followers/practitioners of Buddhism live in simple pre-modern contexts and have infrequent opportunities to develop abstract thinking skills. Even for the minority who studied in monasteries, where intellectual rigor was taught, the opportunities for exposure to diverse perspectives was much less than that afforded by the modern world with its communications and transportation technologies.

Meditation in itself is not seen as enough to facilitate the kind of integrated growth necessary for the training an awakened mind. Foundational features that we would associate with concrete or conventional modes of thought accounted for the bulk of religious engagement for most traditional practitioners. These include: story telling; rituals; the repetition of movements, words, or sounds; simple actions of service and devotion; and numerous rules and principles defining an ethical lifestyle (prohibiting lying, stealing, killing, etc., and encouraging pro-social attitudes). At this foundational concrete level of understanding Buddhism also offers a number of tools for tuning the attitude, motivations, and background knowledge of the practitioner so as to support the central goals of skill-building, mental purification, and insight generation. Examples include: the charnel ground contemplations of inevitable sickness and death; and invocations calling for the guiding support of ancestors or etheric teachers. Within Indo-Tibetan schools, the Khrid system from Bon rdzogchen prepares the mind for emptiness practices through methods including contemplating impermanence, setting clear intentions, and mentor-bonding.

The above apply to ordinary followers and practitioners. Those in charge of the more rigorous studies of the monastery sternly enforced ethical rules and concrete behavioral injunctions, as prerequisites to more esoteric practices. Though, surely, there are exceptions, this level of concrete-tier rigor contrasts greatly with how, in the contemporary west, "almost anyone can walk off the street" and plunge deeply into a contemplative practice program. The west also tends to lack the rigor of the custom-based teacher accreditation/legitimation methods maintained in the east – allowing for many teachers with questionable foundations who "hang the shingle" advertising their gifts. (Of course there are many exceptions in the west to this low bar for student entry and lack of teacher certification rigor.)

Contemplative training has been historically undertaken within the larger context of a monastic liberal arts education that included study and intensive retreat experiences. In the subsection on "omniscience" above we noted that, along with metacognitive (meditative) training, Indo-Tibetan Buddhist education emphasizes cognitive training comprising knowledge in ten
fields (that can be summarized as: logic, language, medicine and healing, the arts, and the Buddhist science of mind).

All this is to say that, when considered from its indigenous context, Buddhist contemplative frameworks were well aware of the necessity of concrete operational (1st PP and 2nd PP) thought and associated behaviors as the prerequisite foundation upon which formal-operational domains (3rd PP) were built – even though one might think the concrete operational considerations were lacking by observing only western instantiations of eastern practice.

3rd PP skill-building – metacognition. Contemplative traditions also directly support 3rd PP capacities in two forms: metacognitive thought and abstract theoretical knowledge. Formal operational thought includes the metacognitive capacity to monitor and think about one’s own thought processes. It also includes the logical reasoning capacity for causal analysis and self-reflection, which in contemplative contexts is essential for developing an understanding of the cause and effect of the pervasive reactivity characteristic of the undeveloped mind. These combine to produce skills such as reflective thinking, critical thinking, perspective taking, self-authorship, and self-directed learning.

The fundamental practice of honing one's ability to focus on concrete objects, such as a candle flame, a mantra, or the tip of one’s nose, are concrete practices. Mindfulness practices that call for one to maintain focused attention on the interior world of thought processes and subtle body sensations correspond to subtle tier 3rd PP skills in the STAGES model. These processes can lead one to elementary insights into the emptiness of thoughts, beliefs, and egoic attachments (see the sub-section above on "Prajna: insight into impermanence, reactivity, no-self, and emptiness").

It is important to emphasize the significance of the fundamental cognitive skill of sustained attention that is developed in the tradition through the practice of calm/staying concentration meditation. The stages of meditation are a form of learning, and like all forms of learning the ability to concentrate on the topic at hand is primary to learning about the topic more deeply. The research undertaken into the stages of contemplative metacognition reveal that the Anterior Cingulate Cortex (Schoenberg et al., 2018), which is activated in states of heightened concentration, is engaged by intermediate practitioners when learning to stabilize the new existential modes of operation in one taste and non-meditation. The training of attentional capacity is therefore fundamental to moving into the stages of adult development associated with contemplative practice. Within traditional Indo-Tibetan practice instructions we can find correlates to all of the sub-processes of attention cognitive processes noted in Grossenbacher et. al., (2017), including disengaging, shifting, engaging, sustaining, monitoring, and scope modulation of attention.

First the student learns the theory that everything in reality is constructed, made of parts connected to other parts ad infinitum. This truth is examined conceptually as it relates to the objective and subjective world of experience (in other words they are given the cognitive map). This cognitive understanding is then matured through a series of progressive metacognitive practices examining specific psychological structures. As we said, the material is first understood in an outward-facing more objective or conceptual sense; and then applied to the inward-facing domain of understanding and transforming the self.
3rd PP skill-building – logical reasoning and theoretical knowledge. We noted the importance of abstract theoretical understanding about causal relationships and subtle interior processes. The theoretical knowledge needed to authentically practice the mahamudra or rDzogchen essence psychology would include at least the following:

- knowledge of causal (Hinayana), systemic (Mahayana), and (essence) metasystemic levels of analysis to understand the causes of individual and social suffering and happiness,

- basic knowledge of how individual psychology, personal health, and the outer environment effect learning and practice,

- knowledge of motivation and its development from an individual focus on peak performance to the full maturation of the heroic altruism seen in the bodhisattva,

- the knowledge of the importance of character strengths and their development, and the self-knowledge needed to recognize personal character strengths and weaknesses,

- a pragmatic understanding of contemplative Buddhist psychological models of mind (attention, eight consciousnesses, levels of awareness, mental structures, etc.),

- understanding of the theoretical map of the contemplative journey,

- knowledge of the theory and developmental stages of practices for visualization, concentration, mindfulness, insight, energy cultivation, dream and sleep yoga, and essence practice, and

- the knowledge of the interaction between the practices and the possible aberrations of the practices.

Rudimentary versions of most of these ideas can be understood by concrete thinking. It is also true that more advanced forms of understanding them can move beyond the linear cause-and-effect, and strictly hierarchical relational structures of 3rd PP thinking into co-definitional, interpenetrative, ecological, and holographic structures understood by 4th PP cognition.

4th PP capacities. Because of the previously mentioned differences in the contexts of pre-modern vs. modern cultures, there are marked differences in how each person perspective manifests itself in traditional eastern vs. modern western contexts. 3rd PP skills in traditional (here eastern) cultures were more limited to advanced study, as in the monastery, or among the well-to-do, or to highly cosmopolitan regions having a constant influx of alternative perspectives. Because the development of modern science and technology has required a sizable infrastructure including robust cross-fertilization of ideas and the efficient production and transportation of materials, and a work-force supporting all of that – all missing in traditional cultures – 3rd PP formal operational thought in traditional Buddhism took the forms of rigorous logical analysis and highly abstract concepts and models without including the "scientific method" presumed to have given rise to modernity. That 3rd PP cognition is more the norm in modern society implies that a higher percentage of people are ready for deep contemplative training (vs. say, concrete
level Buddhist religious dogma, beliefs and rituals). That being said, it may also be the case that the modern mind has a more neurotic and complexly dysfunctional psyche, with more incomplete 1st PP and 2nd PP foundations, which could either inhibit contemplative insight or, worse, produce dangerously distorted outcomes from contemplative practices applied without the proper prerequisites (as described above).

There are also differences in how 4th PP manifests in traditional vs. modern contexts. 4th PP emerges, in part, from grappling with the limits of the 3rd PP worldview. We see that 3rd PP empirical science, technology, and logical thinking have created as many problems as they have solved – both the achievements and the calamities of modernity are pronounced, whilst the calamities threaten to destroy humanity and the entire biosphere. 4th PP is associated with deconstructing the modern narrative and its materialists, triumphalist, and imperialist overtones; and revealing the hidden habits of externalization, extraction, and short-term thinking that feed modern progress. In comparison, traditional cultures had only a hint of the havoc possible when 3rd PP thinking took control. Thus their development of 4th PP capacities was not only rarer (in proportion to the number of 3rd PP thinkers that could develop further), but also less well fleshed out.

In addition, the 4th PP worldview is spurred by the cognitive dissonance that occurs when one encounters perspectives and viewpoints different than one's own. As we said, though some monasteries and cosmopolitan centers were known as places where cultures and knowledge-systems intermixed, it was nothing compared to the rapid movement and confrontation of ideas possible today. In the STAGES model 4th PP involves understanding subtle collectives, which includes the ability to reflect not only on one's thoughts and others' individual ideas, but on whole systems of ideas (as well as interior systems of sub-personalities). It is the collision of entire cultures and world-views, seen not over the slow course of human migration and generational shifts, but in the immediacy of televised (and twittered) wars, class conflicts, and intersectional identity politics – that forces us to see the limitations of, not just individual ideas, but our deepest cultural and identify-forming tacit assumptions.

Thus the 4th PP mind begins to contemplate the movement and evolution of collective thought, in the form of belief-systems: memes, worldviews, identities, paradigms, etc. Following the STAGES model of exterior (outward facing) before interior (inward facing) learning, we first see the noxious assumptions within unexamined belief systems as out there in "the system" ("the man," patriarchy, capitalism, the military industrial complex, etc.), and only later begin to know that our own thinking is always inevitably constrained by tactic cultural and psychological thought-systems. (3rd PP can see how the individual thought processes cloud mental clarity, but is not yet thinking in terms of collective thought-systems.) 4th PP thought also sees how knowledge is hermetically bound and highly contextualized – i.e. the interpretation of any text, concept, or idea can vary greatly based on the cultural and historical background it is interpreted within. In sum, truths and beliefs are revealed as social constructions.

The above partially explains why traditional religious and spiritual cultures can seem ethnocentric, patriarchal, and over-confident from the contemporary (or post-modern) perspective. Given this explanation of how 4th PP thinking in modern times will differ from 4th PP thinking in pre-modern times, we can still note how 4th PP cognition is represented in Buddhist theory and practice. 4th PP ego development occurs when one applies 4th PP cognitive
complexity capacity to the domain of ego or self-involvement (including self-understanding and relational understanding). As we said, 4th PP perceives complex systems of objects or ideas (including systems of interior parts/processes). It begins to notice not just the impact of certain types of thoughts, but the misfortunes perpetrated by thought itself, and by reason itself. 4th PP cognition is also well equipped for multi-perspective taking, as it sees the limitations inherent in all/any perspective (not just some perspectives). In addition, 4th PP can better tolerate paradox and uncertainty, a hallmark of flexible thinking. It can better see variables and relationships as interdependent, and conceptualize open boundaries between systems (Koplowitz, 1984).

We can postulate that Hinayana, the first turning of the dharmic wheel, roughly corresponds to the awakening of 3rd PP; and the Mahayana, the second turning, roughly corresponds to the awakening of 4th PP. Mahayana introduces notions of emptiness (of various forms) and non-duality, and many of its texts work specifically with paradoxes, which is another 4th PP capacity. For example “deep examination of the essence of mind through wisdom will reveal the mind in an ultimate sense to possess neither intrinsic nor extrinsic reality; it is without structure” (Namgyal, p.64). The doctrine of dependent origination concerns the massive (systemic) co-determination of all objects of awareness. Mahayana is also more concerned with the liberation of the collective than the individual (as in Hinayana).

4th PP opens consciousness to the conditioning of and limitations of the mind; but, until 5th PP is obtained, these realizations are usually conceptual and after-the-fact. The insights about the constructed nature (the emptiness of) self and ego, beliefs and ideas, and norms and preferences – are obtained through post-reflection, and perhaps after conceptually understanding another's erudition. They are more likely to be applied to understanding or critiquing others, groups, or "the system," than oneself. At 5th PP these insights become perceptual, immediate, and deeply personal, as conventional reality and the scaffolding of the self begin to radically disintegrate.

Metaware and Unitive Tiers – practices and capacities

We have noted how 3rd PP and 4th PP world-views manifest quite differently in pre-modern vs. modern (and post-modern) contexts. One might think that this trend will continue into the metaware tier (5th and 6th PP). This pattern is not as noticeable in the metaware tier as one might think. This is because the main differences between the two cultures in the subtle tier have to do with the large differences between pre-modern cultures and contemporary culture (which is a mixture of modern and post-modern worldviews). There are no post-post-modern (or metamodern, or metaware) cultures; there are few if any fully post-post-modern (or metamodern, or metaware) organizations or groups. The metaware system of thought has not be realized by enough people, and has not been worked over and through in richly intersubjective contexts enough to have evolved any stability (even local stability) at the collective level (this is mostly true of 4.5/Strategist also). Therefore there are not any appreciable metaware cultural contexts or artifacts to influence one's growth into and through the metaware tier. Therefor there is actually less difference between the metaware mind in traditional Buddhist contexts vs. contemporary contexts (though there should still be some differences). Therefor, we will not try to explicate East/traditional vs. West/contemporary differences at the metaware tier as we did with the prior two tiers.
With a foundation in causal analysis (3rd PP), Buddhist contemplative thought then evolved from a reductionistic perspective on human suffering (abhidharma, higher teaching, 3rd PP), to a systems perspective (madhyamaka/middle-way, 4th PP), and then to a later metasystemic perspective (awakening, 5th to 6th PP) (Guenther, 1989; Wilber 2014; Brown, personal communication, 2017). (We can postulate the Buddhahood corresponds to the Unitive tier of 7th and 8th PP.) Each phase of the teaching is an expression of a cognitive paradigmatic shift in understanding human suffering and happiness and its causes—a turning of the wheel. These shifts map well to our modern understanding of cognitive development.

In relationship to the exploration of contemplative psychology it is useful to explain the four stages of the Metaware tier, the aspect of the STAGES model that most pertains to Buddhist psychology. Terri O’Fallon (2013b) describes that in the metaware tier the mind can begin to perceive both the fullness of objects and the emptiness of awareness itself (which relates to the event and mind perspectives). The process through the metaware tier is the process of eventually reconciling awareness and its object in a non-dual recognition.

Each of the four stages of stabilized metaware apperception have a different focus or object of awareness but all have a sense of awareness with a ‘fullness’ and ‘emptiness’ of the objects that arise in awareness as the silent eternal, infinite field of the Witness. As one moves through these four metaware stages, the emptiness-fullness poles and the witness-kosmos poles gently collapse into each other in a process that comes to completion in the theorized fourth unitive tier (O’Fallon, 2013b, p.6).

Based on Indo-Tibetan essence teachings, the processes de-reification (or decentering) of the constructed nature of reality, generated by contemplative insight, pass roughly through these phases: body, self, emotions, thoughts, concepts, time, duality, core beliefs, and the attentional system. The first four of these are associated with contemplative insights in the subtle tier, the next four from the metaware tier, and the final one in the (much more speculative) unitive tier. Drawing on contemplative essence theory, we can describe some of this territory below in terms of no-self, timelessness, spacious freedom, the non-dual state, non-meditation, and non-localized awareness, and bodhicitta.

**No-self.** The relativistic experience of the self is, from the perspective of the essence traditions, the beginning of recognizing the emptiness of the self. Beginning at a pluralistic consciousness (4.0) that recognizes the social construction of the self, the ability to recognize mental structures that have been fused with awareness (at 4.5), matures into recognition of the creative construction of language, meaning, and perception (at 5.0 and 5.5; Cook-Greuter, 2000; O’Fallon, 2010a). Such processes support a shift in perspective that leads to an experience of self beyond conceptual construction. This shift in operation happens by making the prior subject of experience (the narrative-content self) an object.

In terms of practice sequence, as mentioned above, in order to shift the self-structure to a new identity (self/oneself) of awareness beyond self-structure, the practitioner recognizing, through insight meditation, that the self is a mental construction. The meditator then concentrates on the recognition of awareness that reveals itself as being beyond this self-structure. This continues until this awareness beyond the self is established as a new center of identity, a new basis of operation (a new "self"). Once this basis of operation becomes stable the relative activity of the
mind can be allowed to return but this time viewed from a different existential mode. The change of basis of operation does not just change the fundamental level of identity or existential mode, but also allows for the reorganization of one’s perception of the self-structure (and also of time, as noted below).

Really understanding that the self is a construction allows for the re-organization of the self-structure and its personal narrative into a structure that appreciates its relative existence. As such the process of deconstructing the self-existent reified entityness of the self offers the opportunity for reconstructing a new self – informed by the knowledge brought about by the transition to a new identity/basis of operation. In the developmental theory outlined by O’Fallon this reconstruction of the self begins at 5.5 and deepens to completion at 7.5. After the passive stage of stabilizing a new metacognitive basis of operation at the metaware tier of the very subtle level of mind 5.0 and the unified tier of the awakened level of mind 7.0, there then follows a more active phase of reintegrating the active constituents of mind such as thought and imagination.

**Emptiness of time.** This developmental process into the metaware tier leads to a recognition that culminates in the experience of the temporal organization of reality being a mental construction. This does not negate the experience of time, nor the objective (seeming) dimensions of time described in science, but only negates its experiential subsistence. In essence practice the meditation on the emptiness of temporal experience opens up the recognition of a spacious field of timeless awareness as a new basis of operation, corresponding to developmental stage 5.0. This process of orienting toward the larger whole field and then integrating the parts within the field is fundamental to the essence contemplative path. Once there is a new basis of operation, the practice of one taste meditation begins as the meditator works to maintain this newly emerged point of view simultaneous to the ongoing everyday activity of thought, affect and mental imagery arising in the mind. The emphasis is still on learning to stabilize the field of psychological operations during this mental activity and not suppressing it.

In corollary to the Into-Tibetan framework, O’Fallon’s research (2013), reveals that the mind expands its phenomenological perception of time to a large historic time frame and planetary space frame at 5th PP, and then to an understanding of evolution in the eternity of time and infinite of space, an infinite cosmic evolutionary process, at 6th PP. At that stage of integrating context and content it is understood that eternity and infinity are content, they are vast constructions of mind within which the evolutionary process continues indefinitely. Within 5th PP understanding, the mind can intuit possible futures along the trajectory of open and infinite time/space. However, this form of intuitive knowing is still based on a subtle construction of time and space. Beyond this, at 6th PP, is an understanding of the unbounded and timeless unconstructed nature of mind. At this level of stabilized contemplative development the fullness of evolution is held in the openness of unbounded awareness as part of the individual’s on-going moment-by-moment experience. Practitioners at this level of development report experiencing the unfolding of cosmic evolution simultaneous to a liberating freedom and compassion whilst engaging in the everyday activities of daily living.

Metacognitively this means that the self is experiencing and understanding itself at 5.0 to be an expression of a historic ancestral process. The individual recognizes from a timeless basis of operation that the self and the language used to describe the self has been constructed over multiple generations. This matures and deepens so that by 6.5, the end of the Metaware tier, the
individual recognizes from a timeless basis of operation that the self is an expression of a cosmic evolutionary process played out on the stages of infinite time and space. These insights are not just cosmological musings, but are how the individual interprets and makes sense of everyday challenges. Just as the Great Law of the Iroquois held that all decisions should consider the next seven generations (140 years), at the level of 6.5 there is an ethical appreciation that each decision should consider the cosmological evolutionary process and whether decisions are reducing or increasing psychological, physical, cultural, systemic, and environmental suffering for the evolutionary whole.

**Spacious freedom and the Non-dual state.** When, through the deepening of purification caused by maintaining timeless awareness as a basis of operations, the coarse and subtle level mind with its concrete and abstract concepts quiets, the mind becomes non-conceptual, and the student orients to the field of spacious experience recognizing the non-duality between the awareness and the background spaciousness of the sensory fields. This realization of the spaciousness of mind opens the path of practice known as **spacious freedom** which relates to the 5.0 level in Stages. As this level of practice matures it opens the direct experience of interconnection and interdependence that are indicative of the authentic experience of compassion as understood in the Mahayana, a compassionate spaciousness that phenomenologically is experienced as holding all beings of the past, present and future in a deep motherly embrace. This parallels the metacognitive maturity of the Metaware tier flowering at 6.5 into a deep experience of the metaware community that exists as a timeless ‘we’.

At that point the practitioner then refines the recognition into the empty constructed nature of all experience and purifies the residual, hidden, deep and subtle core beliefs of the increasingly diaphanous self-structure. This purification leads to a natural non-dual state of timeless awareness-space without any artificial activity of mind and within which all mental activity arises automatically and naturally as empty open constructions.

**Non-meditation and non-localized awareness.** This natural state is then used as a foundation upon which to set up the orienting instructions of non-meditation (correlating with entry to the Unified tier, 7.0). Here the practitioner shifts his or her identity out of identification with the attentional system’s localization of individual consciousness and information processing to the non-localized, limitless basis of operation, and the existential mode, of awakened awareness. This is the establishment of a new phenomenological field of awareness, and, in order to stabilize this new level of development, as at the previous level of practice in recognizing the awareness empty of time, the identification with all the mental activity of the previous level needs to be left behind temporarily so that a new, and in this case, referenceless identity as unbounded, pristinely lucid awakened awareness, can be established.

Due to the lack of sufficient research subjects at or beyond the 7.0 stage, O’Fallon’s model is theoretical. However, the process itself, the recognition of a whole field, and then the integration of parts into the whole, is derived based on developmental processes that continue to iterate. Mahamudra non-meditation or rdzogchen cutting-through (khregs chod) meditation allows the shift in the basis of operation of psychological operations to awakened awareness which when stabilized becomes foundation for the Unified Tier of adult development. This involves the recognition of individual-informational-attentional system, as an empty construction. Initially, the stabilization of this basis of operation takes the forefront of experience, as the relative activity of
the mind is less emphasized allowing for the familiarization with this new identity. Based on the re-occurring patterns at the first stage of each tier (1.0, 3.0, 5.0, 7.0) O’Fallon’s model suggests that at the first stage of the metaware (5.0, very subtle) and unified tiers (7.0, awakened awareness) will have this passive (receptive) mode, which then transitions to more active (and reciprocal) modes as the new basis of operation is integrated with prior capacities and everyday living.

**Unified Tier and Buddhahood.** Here we move in even more speculative territory. In terms of the Indo-Tibetan path to liberation, once one establishes the views associated with awakening or enlightenment, one continues to work toward buddhahood by establishing these views in ever more mundane and challenging life contexts, and also by further purification of the mind toward complete freedom from prior conditioning (exhaustion). These steps are well documented though numerous Indo-Tibetan texts, so it is not this part of the path that is speculative, but rather the connections between it and modern developmental theory.

Here the practitioner deepens the strength of this realization by integrating into the new phenomenological basis of operation, through dream and sleep yoga, the deep habits of the unconscious substrate mind (this can begin in much earlier stages, but is probably required for advancing into the Unified tier). By developing the ability to maintain the basis of operation during the typically unconscious processes of dream and sleep the karmic tendencies created through identification during the life span, and deepest levels of non-awareness are transformed until all dream and sleep experience is viewed as an expression of awakened awareness. Once the process of dream and sleep integration is completed the waking sensory experiences and conceptual thought are integrated into the awakened awareness. At this point of development experience is an uninterrupted non-mediation where all experience automatically arises as self-arising and self-liberating (rang shar rang grol).

According to contemplative essence psychology, the process of realizing self-arising and self-liberating (rang shar rang grol) is completed when the storehouse of karmic tendencies – all unprocessed individual, ancestral, cultural, and racial conditioning– is released and exhausted (dharmadhatu exhaustion). When the conditioning is thoroughly purified (T. Sang) the basis of operation of awakened awareness becomes operational through all states, and the mind opens (Tt. Gyé) to the positive qualities of "omniscient wisdom."

Theoretically, from the perspective of Western psychology that looks at the content of experience and not the context (basis of operation), this process is a regression in the service of transcendence (Washburn, 1988), with a stabilized awakened basis of operation there is no longer any ego defense active in the on-going experience and all the unprocessed, repressed, disavowed psychological content that has accumulated over a life time can now be released. This is the automatic experiential/psychosomatic extinction of early childhood object relations, early traumas and the conditioning of perinatal experience (Grof, 1993). As the personal unconscious is released into awareness and automatically processed, then the deeper organizing archetypal structure of the mind begins to reveal itself as an unfolding process of spontaneous visionary experience known as thod rgal (Smith, 2016). At this level of mind, the underlying archetypal energetic structure of psychological reality reveals itself as non-dual with awareness.
In rdzogchen this non-dual archetypal creative expression of the nature of awareness is known as rol pa play energy, and is differentiated from the non-dual dgangs elemental energy of thought and fantasy, and the non-dual tsal liveliness energy that expresses itself as a supposedly external material world (Capriles, 2006). The fruition of this process, i.e. Buddhahood, correspond to stage 7.5, the full understanding of the causes of human unhappiness and the realization of the path of deep human fulfillment and happiness where all conditioned reified structures have been seen through as empty constructions, all accumulations of conditioned memories (karmic traces) have been released. This leaves the mind stainless (Tbt: tri med), allowing awareness to be self-sustained through waking, dreaming, and deep sleep states, and the flourishing of the 80 positive states of a developed Buddha mind dedicated to altruistic service of all embraced sentient beings.

**Bodhicitta.** As such the process of ego development is not just a progressive overcoming of the obstructions to one’s true nature, but is the expression, distorted in earlier stages due to fundamental ignorance, of the nature of the unfolding intelligence of compassion. In a cultural environment dedicated to the education of the human heart and mind, such as one finds in the inner chambers of the monastic colleges, ashrams, caves and hermitage sites of Tibet, Nepal, or India, the growth of self leads to a corresponding growth in compassionate intelligence. The child learns to take increasingly complex cognitive perspectives, reducing narcissism and increasing the circle of concern to include family, nation, planet, and universe in a web of relationships. In the tradition of Indo-Tibetan Buddhism this is referred to as the unfolding of relative bodhicitta (T.by ang chub kyi sems), the compassionate motivation and the ensuing knowledge towards supporting the liberation of other beings. Absolute bodhicitta itself refers to the direct realization of the constructed nature of phenomena and the recognition of the nature of the mind. (Buswell 2013). When plotted on the map of adult development researched and theorized by O’Fallon, relative bodhicitta refers to the constructive development of the higher stages of ego structure, and absolute bodhicitta refers to the deconstructive realization of awakened awareness, the deepest and unconstructed existential mode (Dorje, 2016), basis of operation (Brown, 2017), or level of contemplative metacognition (Unified tier in the STAGES model).

**Revisiting States vs. Stages: Necessary but Not Sufficient**

Here we continue our discussion of states vs. stages from the earlier sections "State, Stage, and View" and "Mind vs. Event Perspective." Above we have been coordinating the views or stable state-stages of consciousness described in contemplative essence psychology with that levels described in developmental theory. This may seem at odds with the notion that states and stages are somewhat independent (the Wilber-Combs principle), but recall that, from O’Fallon, we claim that certain state-stages are necessary but not sufficient to certain developmental levels. As we have said, the Wilber-Combs principles is that one can achieve the views (and states) described by contemplative practices without necessarily having the corresponding developmental complexity or ego maturity. What O’Fallon adds is that certain meta-cognitive or contemplative states are necessary pre-requisites for higher stages of developmental complexity and ego maturity to unfold. In terms of the above discussion of the metaware tier, this means that one can have experiences, even stable state-stages (views) including egolessness, timelessness, and spacious freedom without needing to have achieved metaware cognition. But the converse is not true: i.e. certain stable state-stages (views) are necessary for the achievement of any developmental level (the particular prerequisite view differs according to the stage).
In fact, access and stabilization of higher contemplative metacognition does not require cognition complexity or ego development beyond a basic ability to follow simply follow instructions. As such, it is feasible for individuals to realize the fundamental nature of non-dual nature of awareness without much understanding of the process, a criticism often directed towards many contemporary spiritual teachers and adepts who are "self-realized" and yet are unable to build robust pedagogical environments for teaching others. In the Indo-Tibetan contemplative tradition this is similar to the concept of a Pratyekabuddha (Wyle. rang sans rgyas), a solitary realizer, or intermediate Buddha, who is realized and yet lacks the omniscience of compassionately motivated structural development to be able to adequate lead others (Rahula, 2000). As such they cannot function as realized teachers because they are unable to communicate and individualize the instruction of the cognitive and metacognitive knowledge and practices of contemplative development. This phenomena can be further be explained by giving examples of how it might manifest.

An "awakened mind" at 3rd PP ego development may show signs of overconfidence, egocentric biases, ethnocentrism, bullying, and lack of empathy. Having had state experiences of egolessness, timelessness, and spacious freedom, they may interpret them in terms of self-aggrandizement and power. They may describe these experiences mimicking the flowery language of the traditions, but not reveal any poetic, nuanced, or uniquely personal understandings of these state experience.

An awakened mind at 4th PP ego development may show signs of hyper-complex or abstract over-thinking. They may have a deep conceptual, experiential, and applied knowledge about egolessness, timelessness, and spacious freedom; but still exhibit evidence that they have unexamined shadow material, and blame others for the suffering that they co-create. They may be able to take many perspectives but still be a stickler about the meanings of words, not realizing how concepts are constructed with each context and thought. They may be preoccupied with metaphysical abstractions that seem to explain spiritual concepts, while lacking the embodied felt-sense of how subtle shadow operates within their own psyche.

In "States and STAGES: Waking up Developmentally," O'Fallon (in this issue) shares her preliminary model for how states (and views) interact with stages of development. She shares an "interpenetrate" model of how particular states or views are prerequisite to each stage; and how achieving a stage helps induce particular state experiences. O'Fallon's model is based on (1) close readings of a number of mystic-scholars, including Wilber, Aurobindo, and Diperna (who draws on Dan Brown's work); (2) empirical analysis of how words that describe state experiences appear over different developmental levels; and (3) anecdotal but substantial experience in working with individuals and scoring developmental assessments that represent the full range of adult developmental levels. The preliminary ideas we give here are compatible with O'Fallon, while not specifying as much detail; but we also aim to ground the ideas in the concepts described in this paper.

The primary novel feature of the STAGES model is that it sees the long arc of developmental levels in terms of patterns that repeat within each tier (and patterns that repeat within each level, which some other theories also have). It proposes that the same principals can be used to describe early, middle, and advanced development. As this framework encounters the contemplative traditions, it poses this question (among others): can those psychological/spiritual phenomena
that we attribute to advanced achievement be described in terms of processes that are also at work for childhood through adulthood, and then into "sage-hood" (and Buddhahood). Contemplative traditions included foundational (concrete tier) practices, but did not study childhood development; and they studied advanced states and vantage point but did not study advanced levels of cognitive complexity in the way developmentalists do. Combining these worlds provides hints into models that might give a unified theory of states and stages. O'Fallon has offered a significant if tentative step toward such a model. Below we show a condensed overview of how such work can be described in terms of the concepts we have explored in this paper. The main principles include:

1. Establishing a view (vantage point) involves appreciating some particular form of emptiness (e.g. of conventional rules and roles, thought, concepts, self, time, duality, or particularization). That is, to look deeply into a gestalt phenomena (object or process) that is tacitly assumed to be whole – it is so taken for granted that it is invisible to us ("is us"). With focused attention we discover that the gestalt has parts that the mind brings together to create the whole. In seeing the process of this construction, the phenomena is "deconstructed," and seen-through as empty. The question posed is: when is this particular realization of emptiness needed to address a pressing developmental dilemma?

2. Developmental stages are characterized by capacities (major skills like "object permanence" or "reflective thinking") defined by their level of hierarchical complexity. Skills and capacities begin as glimpses of new worlds of phenomena (e.g. classes of perceptions, durable objects, or abstractions) that need scaffolded assistance and motivational challenges to be developed into mastery. These glimpses are state experiences; and the nervous system often tags them with expansive or ecstatic "wow" feelings, which motivate the effortful process of learning (glimpses of new territory can also be disorienting). Eventually, with practice, comes mastery and automation, so that the skill becomes an unconscious tool that we rely on without thinking about it or feeling anything special.

3. Ego-development (the type of development we are most concerned about) stages grow when any mastered level of complexity-capacity is turned reflectively and applied to deconstruct some aspect of the self. (This deconstruction is only part of ego development; it also involves what one does constructively with the insights gleaned from deconstruction, as described below.)

4. Stage transitions are motivated by dilemmas. In particular, the capacity developed at any stage eventually over-functions and starts to become as much of a problem as a solution. To solve the problem it creates, the mind must develop a meta-capacity that can see the first capacity and critique it and modulate it. That is, the original mastered capacity is tacitly used to manipulate things according to explicit needs and goals, but there is nothing yet in place to explicitly (consciously) manipulate the capacity itself.

5. Each developmentally-induced dilemma is solved in the subject-to-object move that builds the meta-capacity to explicitly see and manipulate the original capacity. E.g. "thinking" moves from something one does without reflecting on it, and thus something one is, to something one sees happening and can thus monitor and control. When an aspect of the
self-system moves from "having" one to being "had by" (e.g. "I am not my thoughts") one is less identified or merged with it. It is seen as a part of the self-system but is not felt part of the self-sense (e.g. I have a body but I am not my physical body). The subject-to-object move creates a new world or field of processes/objects that were once tacitly assumed to be part of the self, and invisible. E.g. when thoughts can be "seen," a new world, a field of thoughts, opens up to learn about and eventually try to strategically control.

6. As one deepens understanding of a field and its varied contents, one can step back to see the field as a whole, and step back a bit further to notice the borders or boundaries of the field, and step back yet again to sense that which holds the field in its awareness. This is the event-to-mind perspective shift. One develops a felt sense of that larger meta-self, and becomes identified with it as the new identity or basis of operation – a new vantage point or view.

7. This vantage point begins the process anew, because it is something one identifies with – that one is – but is not yet something one "sees" and can control (as "object"). From the event perspective the new capacity is a new skill – a tool for operating on some field of objects to meet goals. From the mind perspective the new capacity amounts to a new self – one that holds that field. Also, at the beginning, this new skill/self appears in (usually exhilarating) glimpses, as an un-mastered ability (∴ so the process starts from the beginning at a new level).

The above is a very condensed overview of a longer narrative and emerging theory; and one that is not fully fleshed out yet. O'Fallon (2020) fleshes out similar themes in much greater detail. In sum: we have suggested how state experiences can lead to new stages if the right steps are taken. We have also suggested how stage transitions can require certain states – those states are necessary but not sufficient because the state must be applied in a particular way (self-reflectively) to achieve the stage transition.

We have also shown that, though each developmentally-created dilemma calls for a certain states/views, i.e. certain mode of emptiness, in order to be solved, that the state/view that can be used to solve a dilemma can be experienced prior to the developmental stage (unfolding) where they are "called for." This suggests that a deconstruction could occur before it was needed, and even perhaps before one was ready to appropriately use or integrate it.

State experiences can arise "naturally" in developmental unfolding, but can also be catalyzed by contemplative practices, hallucinogens and intoxicants, rituals or extreme events, etc. We can ask in each situation whether such a catalyst is a healthy support for a process already needing or "wanting" to happen vs. a forceful thrust into dangerous territory (a complex question depending in part on the type of "set and setting" support available). Furthering an earlier discussion, we can note several dangers of experiencing a state experience before the self-system feels an authentic need for it, or before one can integrate the insights that the state allows for. We list some of the dangers below (these items overlap with each other):

− **Narcissism:** If the state experience is not successfully applied reflectively to deconstruct an aspect of the self, the new capacity may be appropriated to narcissistic ends, as a more
powerful tool with which to manipulate others, as opposed as a means for humble self-understanding.

- **Projection**: If the state experience opens up a territory that the individual is not developmentally able to make meaning of, the new "self" that emerges from the event-to-mind shift (e.g. witnessing consciousness) can be projected out, instead of being understood as a new self; and interpreted as, e.g. God, or collective consciousness, or some other metaphysical entity.

- **Grandiosity**: Alternatively, if the personality structure is too defended, or too naive, to "release" its hold in the deconstructive move, then the new view can be introjected inward and fuel grandiosity or ego inflation as in "I AM God" (or god-like).

- **Arrested development**: Ideally, the deconstruction of an aspect of self (a capacity) does not remove it or regress one to an earlier state, it allows one to see it (transform subject-to-object) and see it as constructed/empty (de-realize/de-center it). This gives one the choice/freedom/resilience to use a capacity more wisely. However, if the capacity is deconstructed before it is functionally constructed then a state-stage can result in a regression or the naiveté of a developmental delay. For example, when one "sees" that there is "no such thing as the self" before one has a functional autonomous ego, then one can regress into a pre-egoic state because one does not have the option to bring out the tool of a strong egoic-self strategically when it is needed.

- **Dissociation**: If the deconstruction/emptiness move threatens to reveal something about the self that the self (ego) strongly resists knowing, the state capacity many not be used to reflect upon the self; or if it does, the self may split, creating type of dissociation such as unhealthy "depersonalization" or "derealization".

- **Abstraction**: If one learns about or gets a taste of a state and does not allow the associated capacity to work, in an *embodied* sense, on the tacit and unconscious realms of the mind/body, it can continue to live in a world of abstraction (or hyper-abstraction), wherein concepts such as oneness, nonduality, emptiness, fullness, selflessness, and timelessness are disembodied concepts with a tenuous relationship to direct experience.

- **Attachment**: Finally, if one becomes "addicted" or attached to the experiential "wow" factor of novel states, and a hedonistic compulsion toward state experience (vs. a dilemma or desire to learn) is the primary motivation for inducing the state, then opportunities for a) deconstructive learning; b) solving the dilemmas of co-fused aspects of self, and (c) turning state capacities toward self-understanding – can all be forgone (and problems mentioned above, such as grandiosity, hyper-abstraction, and projection are more likely).

These concerns exist in "spiritual growth" contexts, but are also valid throughout the developmental spectrum. For example: "when is it too early to teach a child to read; or give them extended access to a computer?"
In the condensed overview there is much left unsaid, e.g. How such a sequence reiterates through the specific STAGES levels, and how this iteration relates to the specific "emptinesses" of thinking, self, time, duality, and particularity, is suggested in O'Fallon (2020). We leave for another time further discussions of how this relates to: experiences of emptiness vs. fullness; how the sequence involves the dimensions of interior/exterior, self/other, individual/collective, and receptive/active/reciprocal/interpenetrative; how the sequence touches on the primordial modalities of seeing, hearing, and feeling; and where movements of integration fit in with the narrative above that describes moments of differentiation.

4. Conclusions

The Mahayana tradition evolved these practices motivated by compassionate necessity to train heroic adept leaders with the capacity to address the suffering of individuals and culture. The training in ethics, meditation and wisdom was never for the purpose of developing higher states of consciousness or development outside of the cultural necessity for those skills to serve the wider social field. Those who held the lineages of meditation often kept them alive in isolated mountain ashrams. However, this was to keep alive lineages so that when society was ready for them the technologies would be operational.

The task ahead is to create pedagogical environments that lead to the flourishing of a contemplative psychology on western ground. Such integral environments would integrate the practices of psychological healing, self-development, and self-transcendence with the training of the aspirant within a particular field of activity such as law, government, religion or education. Perhaps then we have the hope to become a civilization beyond discontent (Brown, 1986).

The purpose of this study has been to assist in the translation of Indo-Tibetan essence psychology into a form that Western psychologists, and educated lay-people can understand. It is hoped that through greater understanding as culture we will come to have a deep appreciate and respect for the profound and insightful psychological theory and praxis that this tradition has to offer and as such be willing to engage in practices seriously for the betterment of the larger social good. At a time when those with the greatest ability to wield power, i.e. the politicians who hold the highest government offices, and billionaires sitting on corporate boards exerting great influence on society, act like sociopaths, there is a dire need for a spiritual and ethical renaissance. Contemplative psychology when enacted correctly can provide that resource.

This paper has outlined the basics of Indo-Tibetan contemplative psychology, the essence psychology of mahamudra and rdzogchen, the stages of adult ego development, and the research on metacognition as means of integrating these different perspective on psychological development with the intention of placing contemplative psychology where it belongs, at the very heart of the psychological understanding of what it means to be a human being.

From the perspective of adult ego development, Indo-Tibetan essence psychology is a body of theoretical knowledge and metacognitive skills that when applied sequentially in the direct experience of the practitioner leads to the unfolding of deeper levels of identity. These levels of identity result from the purification of awareness through disidentification from the deep structures of human consciousness through the three fundamental states of waking, dreaming,
deep sleep. The fundamental praxis is the development of post-formal metacognitive skills. Through the development of attentional self-regulatory metacognition (steering the attention, increasing interest and brightening awareness), the recognition of the impermanent and constructed experience of soma and self, the illusory nature of temporal experience dualistic perception, the individual the practitioner refines his or her metacognition capacity until even the attentional system is seen as an expression of primordial awareness reveals itself.

Currently the practice of this developmental psychology is maintained within the relatively strict boundaries of traditional Tibetan lineages, which, from an exoteric perspective, package the practices in the garb of traditional religion. However, the esoteric theory and practice of Indo-Tibetan Buddhism has little in common with religion and has much to offer the modern world’s understanding of mental health. Western psychology is, comparatively, in its infancy, and the advent of positive psychology as a major field is less than two decades old. The field of Indo-Tibetan contemplative psychology offers a tradition of practice developed to mature human positivity to its fullest, and is based on hundreds, even thousands of years of practice-based evidence, which is slowly being corroborated by research in the brain sciences. The integration of mindfulness and compassion practices in psychotherapy is only the very beginning of a meeting of western and eastern psychological traditions. The implications of the meeting could in time lead to a fundamental paradigm shift in psychology and education.

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Appendices

Appendix 1: Developmental Stage Descriptions

Below we give a short description of each developmental stage. Descriptions of stages 1.0 to 4.5 combine descriptions from Loevinger, Cook-Greuter, and O'Fallon, while descriptions of Stages 5.0 to 6.5 are from O'Fallon (2010, 2011, 2012, 2013). We primarily make use of the stage names from O'Fallon's STAGES model, which is described in the section "The STAGES model."

Figure A1. STAGES Model (I/C=Individual/Collective; A/P=Active/Passive; Ext/Int=Exterior/Interior) Black numbers (2.0, 5.5, 6.5) show added vs. Cook-Greuter's model.

0.0 to 0.5 (Pre-personal and pre-language Stages). Though they are referred to in some of the cognitively-oriented Structuralist developmental theories, the early pre-personal and pre-language stages of childhood development are not explicated by the constructive developmental theories (though they are referred to in terms of prior building blocks of cognition). This is mainly because these theories of "meaning making" (and ego) development refer primarily to how people understand, describe, and reflect on their understanding – which occurs verbally. These early levels include stages called: sensorimotor (undifferentiated with no real sense of self; 0-6 months), and emotional-relational (still not yet differentiated from emotions and is unable to tell the difference between the emotions of self and others; 6 to 24 months).
The majority of adults will pass through the initial stages of pre-personal development although there are those adults with arrested levels due to profound developmental issues such as severe autism, mental retardation, and social neglect who will remain at those early levels.

1.0/Impulsive (concrete-individual-receptive; also "Magical"; onset 2-4 years of age; <5% of adult population).

The self is very elementary in functioning, and is operating from a first-person perspective. Piagetian pre-operational thinking is applied to the self and the central development is the ability to use imaginal and word symbols cognitively to represent objects in the inner and outer world. The birth of the symbolic self marks emergence of mental self. However, this mental self is not fully differentiated from emotional or physical world. This leads to magical thinking, wherein a child believes that thoughts and feelings directly interact with the world, and assumes intimate causal and undifferentiated connection between mental, emotional, and physical worlds. Due to this lack of differentiation with the world there is a strong unconscious focus on separation between self and the world with the use of the words “no”, “me,” and “mine” being common.

The self is still fused with impulses and others are only seen as source of gratification. At this level the self can struggle with the lack of capacity for suppression and exhibit acting out behaviors due to the inability to delay gratification and take responsibility for actions. At this point of development the self is also beginning to have the capacity to actively submerge uncomfortable semantic meanings, experiences, emotions and somatic sensations that can lead to psychoneurosis.

1.5/Opportunistic (concrete-individual-active; also "Self Protective"; onset age: older children; 5% adult population).

Here the self makes use of a combination of preoperational and early concrete operations to reflect upon itself in such a way that it develops a simple concrete conception of itself. At this level the self still lacks insight into itself however it has gained control over the driving impulses from the prior level of development and as such now has the ability to control itself and is often on guard to control external situations. The Impulsive has the concrete cognitive understanding necessary to know that society has rules that it needs to follow. However, the morality of this self-system is expedience: the self is only bad if caught, and even then is unlikely to express regret or remorse, just anger.

The motivation of the Impulsive self is towards its self-serving needs and desires, whether legal or criminal. The self-system is opportunistic and to that end develops a persona to manipulate others and protect its fragile sense of self. It is no longer impulsive yet doesn’t yet understand causality, and therefore lacks planning and an ability to just act with considerable courage. In relationship to others empathy is not well developed in persons at this level of development, so interactions tend to be based on the desires for control, competing for goods, space, power, and the need for self-respect. Feelings are externalized, friendships blow up easily, yet others are to blame and anger is directed against world.

2.0/2.5 (concrete-collective-active and -passive; also "Mythic-Conformist"; onset age: older children, early adolescents, 10% adult population).

For convenience we here combine two of the STAGES "second person perspective" levels, following the Loevinger model. This is the first

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7 Approximate ages of the levels are from Cook-Greuter (2007).
personal stage in that the self is using mature concrete-operations to reflect upon itself and is better able to identify with social norms and images than libidinal drives. In having differentiated from its own drives the self-system now has the opportunity to really connect for the first time to others and to sense belonging to a group, which is strengthened by following the rules and roles of the community. As a member of a group rules now become important as significant psychic structures of identity and are understood as being a priori self-existent or mythically preordained. Having aligned the self with the membership of a group, a simplistic second person perspective – “either you are in or out” – now dominates.

The self-system does its best to look, act, appear, and talk “right” to maintain membership with the group and thus reject those appearances and behavior not of the group. At this stage the self gains acceptance through following the rules and takes comfort in the sameness of others, easily internalizing norms without question and not wanting to stand out from the group. The self-sense has several basic internal states and those that are negative and do not align with the group are repressed and avoided.

3.0/Expert (subtle-individual-receptive; also "Conventional-Interpersonal" or "self-aware"; onset age: older adolescents, young and older adults, 37% adult population). At this stage the self reflects upon itself using a mixture of mature concrete cognition and early formal abstract operations. At this stage, finally, the self is able to take itself as an object, and take a third person perspective on its own experience. Capable of introspection and self-understanding persons at this stage are able to recognize in themselves ways that they stand out from the group. As such, the ability to see themselves adds more complex nuance to their self-reflection and there is an appreciation of their uniqueness. At Expert the sense of uniqueness allows the self to stand apart from the group, bringing a sense of self-consciousness and sometimes also a preoccupation with how others will judge one’s differences. These new capacities lead to the ability to appreciate difference in others, and this leads to an increased level of complexity in relationships. This is the first stage where people describe relationships in terms of the inner world of feeling and emotion.

Kegan (1995) describes how this stage fulfills the developmental expectations for adults in traditional pre-modern societies. A person now has a capacity for foresight, the ability to adjust to changing circumstances, and understand notions of adult accountability and responsibility. However, the Expert self-system has not yet caught up to the level of self-determination needed to navigate modern society and struggles with finding integrity between self and the membership group.

3.5/Achiever (subtle-individual-active; also "Rational-Self Authoring" or "Conscientious"; onset age: older adolescents, young and older adults; 30% adult population). This is the target level for our culture at the present time. At this level of development, the self-system is able to reflect upon itself using formal operational cognition. Rational-Self Authoring self-systems add linear time to their rational thought processes thinking forward and backward in time and expanding their social context to include those outside their ethno-national membership group to include others across time and culture who share their ideals and aspirations. They are willing and able to work for the betterment of all. The ability to reason, to have metacognitive thinking about thinking, and reflect upon the conditioning symbols, scripts, norms and conventions of prior levels leads to a more introspective ego, and a concern with the cultivation of a stronger clear sense of individuality free from external authority. Living life by one’s own internal
authority and chosen standards can cause guilt if not lived up to. At this stage there is a belief in the objective scientific method, in rationality, as well as in empiricism and positivism to uncover the truth about the world. This is accompanied by belief in the perfectibility of mankind.

4.0/Pluralist (subtle-collective-reciprocal; also "Relativistic-Sensitive"; 10% adult population). This cognitive level has been the leading edge of Western culture for the last 40 years and is developed by the integration of mature formal operational and systemic thinking within the self-system. This is the beginning of general systems thinking described by Koplowitz (1984) with variables that are interdependent, causality this that cyclical, and boundaries between objects that are open and flexible. This 4th person perspectival capacity is characterized by the ability to be aware of the contexts within which the contents of experience arise. This ability leads to a greater interest in self-understanding and deep questioning. The self may be experienced as a multiplicity of voices such as described in the Internal Family Systems model (Schwartz, 1997).

Here it is understood that subject/object distinctiveness is not absolute, and the idea of the participant-observer is understood as the subject/object boundary become permeable. Whilst this stage maintains a capacity for awareness of past and future, the Pluralist self-system is more interested in the present moment fed by interest in such things as eastern wisdom traditions, self-help books, and therapies emphasizing the present moment. There is a heightened differentiation of self from the group membership and a willingness to pursue personal counterculture life goals if need be. The ability to see the relativity of truth leads to a deep pluralistic sensitivity towards those perspectives marginalized by mainstream society, with a greater recognition and celebration of individual and cultural diversity.

4.5/Strategist (subtle-collective-interpenetrative; also "Integrated-Multiperspectival"; 5% adult population). This is the level of development that Kegan (1994) calls the “honors track” of the cultural curriculum, and the level that Wilber increasingly emphasized in his writing on Integral Theory. The self-system at this level has metasystemic cognitive capacity (cognitive stage 6) and is able to apply those cognitions onto the self-system. Whilst Pluralist self-systems can struggle with the cacophony of self-parts, the Strategist self-system is able to integrate the self into a whole system integrating mind and body, reason and emotion, intuition and rationality. Preoccupation orientates towards personal development and the actualization of potential. Distressing emotions are more tolerated and paradoxical elements can be integrated into a system of logic. This frees up more energy, as the self is no longer defending itself against disavowed psychological material.

At Strategist one’s life work is motivated by becoming all one can be, and, for persons in this stage, wanting to help others grow is one of their strongest motivations. Strategist self-systems are attracted to work as psychologists, coaches, consultant, and executive leadership positions. Integrated-multiperspectival selves can see life as an open-ended journey with no predetermined end, giving the full responsibility to each individual for his or her fulfillment.

5.0/Construct-Aware (Metaware, Individual, Passive, Receptive; 1% adult population). As the self moves into the metaware tier the person develops the capacity to discern the nuances of awareness itself. At the initial recognition of the 5.0 the direction of the attention is external and the witnessing ego arises with more focus on the objects arising in awareness. These individuals
have the capacity to take perspective on perspectives so much so that they begin to see what is tantamount to a hall of mirrors. They are able to take perspectives on perspectives at will. Some experience this as a capacity to envision multiple meaning loops; others become aware of their feelings looping (feeling a feeling about a feeling, or feeling a feeling). With a witnessing awareness activated the person becomes aware of projections arising in the moment. The subtle ego is recognized and conceptions that were once concrete are now recognized as constructs generated by the subtle mind and are experienced as empty and impermanent. This gives rise to the experience of groundlessness; that there is no concreteness in reality is a realization that can bring about an acute existential angst in some.

The cognitive capacity to be aware in the moment of multiple generations of stories and constructions arises, and with it the ability to experience the self, as a multi-generational impermanent process. Awareness of space increases to include the larger Cosmos. As the 5.0 individual matures his or her perspective shifts from external cognition to internal and the focus is more on awareness of awareness itself, which brings a lucid emptiness to every object that arises within it. In the awe of such a larger vision a concern about hubris and spiritual arrogance needs to be transformed by a genuine humility.

Behavioral cues of 5.0 include a difficulty in speaking coherently due to the constant witnessing of the observing awareness over the perceived limited communicative capacity of the self-system. Since there are not many individuals operating at this level of development they can feel isolated and question their own sanity.

As development proceeds at this stage, emptiness and silence of awareness moves towards undergirding the entirety of ordinary experience as individuals at this level of meta-cognitive development begin to settle into their new identity as awareness, the witnessing awareness of full and empty, concrete and subtle objects.

5.5/Transpersonal (Metaware, Individual, Active, Active; <0.5% adult population). As the capacity for witnessing awareness developed at 5.0 becomes familiar, constant, and ordinary, with awareness of awareness being brought into complex interactions and understandings of the world, the self-system discovers a greater sense of freedom. There is a continued development of one’s own awareness of awareness of objects but this capacity is still polarized with awareness of the objects themselves. So that the 5.5 system may switch into a mode of immanent integration of body and mind, heart and head, inner and outer, or conversely operate from a decentered transpersonal perspective of an observing ego. However, they are not yet able to carry out both operations simultaneously.

At 5.5 the self-system begins to recognize that certain conceptual constructs and narratives are more useful that others depending on the circumstances and the effect these operations have on others and the specific situations involved. In activity individuals at this level have the capacity and mental pliancy to synthesize multiple perspectives. These conceptions themselves might not be unique, but the complexity is multi-dimensional which often leaves 5.5 feeling unseen, misunderstood, and often lonely.

Often persons with a 5.5 self-system do not take feedback well if they sense that the other does not understanding the complexity that they are basing their perceptions on. The 5.5 can be
recognized by their fluent complex, vivid, and playful language style displaying a remarkable and yet ephemeral intelligence. They have a capacity to hold virtually anyone with a depth of compassion and concern, and an ability to speak often with a “stream of consciousness” quality. They can come across as arrogant in that they are sure of their choices, often willing to yield and yet surprisingly rigid in their personal perspective. At 5.5 the self-system is able to recognize the metaware capacities of others, but not yet cognizant that others might also be able to perceive their metacognitive capacities in return.

6.0/Universal (Metaware, Collective, Passive, Reciprocal; <0.05% adult population). At the Universal 6.0 stage the metaware collective is in the foreground of experience. This collective contains the entire manifestation of concrete, subtle, and metaware objects. The 6.0 self-system exhibits the ability to let go of the 5.5 complexities even whilst functioning within it, and has the capacity to integrate both poles of immanence and transcendence, form and emptiness into an integrated both/and perspective, able to recognize the recognition of awareness whilst involved in day-to-day activities. Their mode of operation has a deep acceptance of life without the compulsive need to change self or others.

At this stage a new sense of the collective arises, a sense of the formless ‘we’ arising within the field of awareness. This is a non-hierarchal stage where everything arises together simultaneously within awareness. The experience of time and space becomes infinite, with occasional spontaneous eruptions of “all at once” knowingness, non-duality without a center of psychological operations, and without casual operations of knowing. There is a general experience of universal interconnection and inter-being integrated into the everydayness of life. What may have once been a state experience of universality has become an ordinary experience of operation and there arises a direct understanding of the evolutionary process of the Whole. With the experience of “everything perfect as it is” the 6.0 self-system no longer has the pressured complexity often common at 5.5 and language can become more poetic, unique and vivid to communicate the paradox of simultaneous time/timelessness and specificity/infinity.

6.5/Illumined (Metaware, Collective, Active, Interpenetrative). In the polarity of active/passive development the Illumined stage is the active fruition of the metaware tier as such there is a greater degree of integrating active functioning into the non-duality of immanent form and empty transcendence. Non-dual states continue to increase as the inherent natural dynamism of growth continues with the projection of one’s metaware interior knowingness and exterior unboundedness into the world and the introjection of the world into oneself, the precursor of the non-dual tier.

In turn, recognition of deep patterns akin to those experienced at the 5.5 stage reappear. The self-system looks forward and backward throughout all developmental history and across the various fields of knowledge in consciousness, science, culture, and social systems within the larger expanse of all space and time. The Illumined is able to spontaneously recognize the deep patterning of humanity. The patterns differ from those at 5.5 in that whilst simple they are holographic and simultaneously include the whole. Illuminatives are likely to experience this process as a flow of information that comes through them, that they are simple transducers of information.
Unitive/Non-dual Tier: 7.0, 7.5, 8.0, 8.5. O’Fallon notes that all the stages through 6.5 operate under the function of the categorizing, distinction making, and perspective taking mind. A signal of moving into a hypothesized 4th Non-dual tier is the recognition of this perspective-making mind by a centerless nondual awareness (O’Fallon, 2013).
Appendix 2: Metacognition

Fundamentals of Metacognition

**Metacognitive Theories.** Simply put, metacognition is *cognition about cognition* (Flavell 1979). This has often been simplified in the literature as “thinking about thinking,” however, metacognition does not have to rely upon thought, and can be non-conceptual in the form of *metacognitive insight* (Teasdale et al., 2002). As such, the word *cognition*, “the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses” (Oxford, 2007), is more appropriate than the word *thought*. This is particularly important in the more advanced forms of metacognition that rely upon metacognitive awareness and not just metacognitive thinking. For instance, the metacognitive tracking of one’s basis of operation, the psychological location of identity, is non-conceptual and does not involve the use of thought, but rather maintaining an awareness of how information is being processed.

Writings on metacognition in Western civilization date as far back as the De Anima and Parva Naturalia by the Greek philosopher Aristotle (Colman, 2015). In America, metacognition or *introspection* as it was known, was first popularized in the writings of William James (1890) as his fundamental method of psychological inquiry. Tarricone (2011) identifies the main theorists in the modern field of metacognition theory as Flavell, Brown, Borkowski and Pressley, and Kuhn. Flavell (1977) explored the role of reflection in *self-regulation* for (individual) *learning* and *problem solving* (Brown, 1987). Flavell’s model has three fundamental components, metacognitive knowledge (including meta-memory), metacognitive experience (in-the-moment processing), and metacognitive skills (for the evaluation and regulation of cognitive processing). *Critical thinking* involves asking good questions and considering alternative possibilities which, according to Richard Paul (Paul & Elder, 2008), requires metacognition to effectively mobilize the elements of thought (purposiveness, perspective taking, outcome analysis, bias bracketing, interpretation, and information gathering), and to monitor the standards of thought (clarity, accuracy, relevance, precision, significance, completeness, fairness, and depth) (Paul & Elder, 2008).

Much of the work in metacognition has focused on *self-understanding* and *self-regulation*. Brown’s (1975) model includes knowing (comprehension), knowing how to know (inquiring and learning strategies), and knowing about knowing (*metacomprehension*). Kuhn’s (2000) metacognitive theory of metaknowing adds, among other things, a clearer differentiation between declarative (know-that) and procedural (know-how) aspects of metacognition.

Brown (2006) takes a quasi-developmental approach to divide metacognitive skills into basic, intermediate, and advanced – in a system that anticipates the more advanced forms applied in the contemplative essence practices. The *basic* skills include the development of awareness of mind of self or other, monitoring the accuracy of state of mind, awareness of one’s influence on the other’s state or behavior (and vice versa), becoming aware of one’s state of mind in such a way that it has a regulatory effect on the state, awareness of one’s own or another’s action plans and goal directedness, and meaning making. The *intermediate* metacognitive skills to be developed include the recognition of how the past and the projection of the future shapes one’s experience, appreciating the relativity of states of mind, seeing into the underlying assumptions and
expectancies related to information, optimizing action plans in the face of accurate awareness of limitations, fostering sensitivity to contextual effects on behavior, and perspective taking, the ability to consider something from another’s point of view. The advanced metacognitive skills include taking a wider, super systemic perspective, developing metacognitive awareness of past/present, self/other or child/adult orientations, awareness of the degree of organization or coherence of one’s mind, recognition of interdependence, articulation of ultimate concerns, the direct, non-representational awareness of a wider reality, and refined meditative metacognitive skills.

Borkowski and Pressley’s (2000) model adds, among other things, the importance of self-efficacy, self-esteem, and motivation in meta-cognitive processes – emphasizing the interplay of emotional with cognitive processing. According to Lai (2001), several researchers have emphasized how motivation is an integral component of metacognitive experience, providing the capacity for the enjoyment of learning, curiosity, persistence in the face of challenge, and management of affective states (Cross & Paris, 1988; Martinez, 2006; Paris & Winograd (1990)). Below we also discuss CBT therapy, which emphasizes acceptance of the contents of the mind.

The Soviet psychologist, Lev Vygotsky (1978) explained the importance of explicit verbalization during social cognitive interaction. Hearing others reflect about us, or about themselves, becomes internalized as an inner dialogue about ourselves, which is a foundation for metacognitive reflection. This intersubjective (intrapsychic) component of metacognition is a key factor in attachment theory and various approaches to psychopathology. Below we explore this more under "Attachment Therapy."

Aspects of metacognition. These are at least few hundreds of researchers and theoreticians who have considered metacognition. Historically, “metacognition is not only a monster of obscure parentage, but a many-headed monster at that” (Brown, 1987, p. 105). Yet we will attempt to sketch the overall contours of this convolutedly textured field as follows. Early work in metacognition differentiated primary (first order) from second order cognition, where primary cognition refers to the contents of thought, feeling, or perception. Second order cognition is often described as thinking about thinking, but it can also include: thinking about feeling, thinking about perception; and sensing into (i.e. feeling/perceiving) the experiential nature of one's thinking, feeling, or perception. An additional complication is that this second order "thinking" can relate to its subject (content) in many ways, including: assessing its features and contours, evaluating its quality or value according to some standard or goal, manipulating (directing, subduing, or transforming) it, and anticipating or planning how it will or should manifest in the future. To make matters even more complicated, metacognition might include thinking about one's memory, attention, intentions, skills, beliefs, personality, learning style, or meaning-making (which could include how one understands knowledge and knowing (epistemological belief system), and how one weaves narratives/stories from given information). Different theorists have

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8 According to Schraw et al. (2006) metacognitive motivation has two subcomponents: self-efficacy and epistemology. Self-efficacy relates to the confidence level a learner brings to accomplish a specific task or goal, and epistemological beliefs relate to the beliefs a learner has about the origin, nature, and epistemological paradigm of knowledge (absolutist, scientific, relativistic, etc.).
different terms for many of these sub-types, and many use restrictive meanings for "metacognition" that don't include all of these things.

There are a number of domains of psychological and cognitive research in which metacognition is fundamental, where again, the relationships between terms becomes quite fuzzy or diverse. These include: cognitive psychology (metamemory, abstraction, memory storage and retrieval), neuropsychology (executive functioning), educational psychology (self-regulated learning, inquiry), developmental psychology (theory of mind, self-awareness, meaning-making), clinical psychology (mentalization, self-understanding, identity), and problem solving (reflective thinking, critical thinking, creativity, "higher order thinking").

Though we will not attempt to create a new order or synthesis out of this tangled set of phenomena (Brown's "monster"), we can offer some distinctions that will simplify things enough to allow us to apply the field to contemplative practice.

First, we can differentiate meta-knowledge (knowing about knowing) into things one knows about oneself vs. more general principles that one believes apply to human thinking and knowing in general. In this study of contemplative psychology we focus on the former, on insight gained through self-observation (though of course more general knowledge obtains through both meditation instruction and in how one infers that others' minds work like one's own mind).

Second, some operations build upon others by definition, adding a bit of structure to the quagmire. For example, one must be able to observe something (awareness) before one can monitor it or reflect upon it verbally; and one must be able to monitor/reflect upon something in order to engage in more sophisticated tasks such as predicting, controlling, or transforming it. This begins to add the developmental lens.

Third, we can observe that some of the confusion or theoretical diversity in this field is due to the limiting nature of the concept "meta" (as in metacognition, metamemory, etc.). That fact is, the metacognition that operates upon some content can become the content for a higher level of metacognition. For example, many would say that "problem solving" or "critical thinking" require metacognition, and thus thinking about one's problem solving or critical thinking would be meta-meta-cognition. We can see that terms meta-meta, meta-meta-meta, etc. quickly become untenable and confusing designators.

Modern developmental theories allow for greater precision in this regard. The 12-16 levels defined by theories of hierarchical complexity begin with the lowest levels of sensorimotor processing (some start even lower at logical operations executed at the information processing level of neurons – see Commons & Richards, 1984). Each level "operates upon" the prior level, where "operating upon" is a "meta" move that can take any form – e.g. to observe or monitor, to assess, to compare or differentiate, to coordinate or synthesize, to manipulate or control, etc. (IBID; Fisher 1980). Advanced levels of metacognition, such as the monitoring of the psychological basis of operation, or the metacognitive insight into the constructed nature of
sensory and psychological information, can be considered post-formal (dialectic third order) cognitive operations, where different perspectives on metacognition itself can be taken.9

Therefore we will usually use "metacognition" to refer to thought or perception that operates upon some content, to differentiate the content from the meta-content in that context (even though in another context the meta-level might become the content level). When we need to be more precise we will often refer to specific developmental levels. We will also try to be clear in each context what type of "meta-move" or operation we are referring to. For example, ego development is largely driven by the "subject to object" meta-move, in which some invisible aspect of the unconscious mind that influences thought or behavior (i.e. we are subject to it) becomes seen, so that we can reflect upon it (as object). Establishing a "view" is yet another type of move, as we will discuss.

**Meta-knowing, meta-sensing, and meta-thinking.** Finally (fourth), and critically for our treatment, we can combine Brown's and Flavell's models to differentiate meta-knowing, meta-sensing, and meta-thinking. All three forms of metacognition can operate upon any of the types of content mentioned (feelings, memory, thinking, etc.). Meta-knowing (including meta-comprehension, meta-memory, and meta-skills) refers to stored knowledge about how cognition works, and stored strategies used to guide any of the metacognitive processes (e.g. procedures specifying what/when/how/why to apply, or improve each metacognitive sub-process). Meta-knowing includes procedural skills designed to monitor cognitive progress through the use of strategic metacognitive regulation, or executive control (Brown, 1987). These skills include knowledge about orientation, planning, regulation, monitoring, and evaluation strategies used to control cognitive activity in order to achieve a cognitive goal. Metacognitive skills allow a learner to oversee a learning or problems solving process in reference to internal or external standards.

Meta-thinking and meta-sensing are both in-the-moment processes (vs. meta-knowledge, which is information or procedural skill retrieved from memory). Meta-thinking involves reflective (explicit conceptual) thought (including evaluation and strategizing). Meta-sensing is non-conceptual, perceptual, and experiential. One can access (recall) stored meta-knowledge (i.e. information or procedures) like a "program" in memory, and then "execute" this procedure, i.e. actual do what it specifies, to then have an in-the-moment experience of meta-thinking or meta-sensing. Though meta-thinking is the primary focus of metacognitive scholarship, including its use in critical thinking, problem solving, and self-directed learning, meta-sensing is as, or more, important in contemplative psychology.

Meta-sensing (or "metacognitive experience") consists of direct conscious cognitive and affective states involving awareness, thoughts, intuitions, perceptions, feelings, and judgments appreciative or responsive to in-the-moment experience (Tarricone, 2011). Meta-sensing is perceptual, non-conceptual, and non-reflective, and is constituted by the felt-sense of being in any moment and context. "Felt sense" is a term used to hold both the perceptual aspect (as in Davie Bohm's (1980) "proprioceptive thought") and the feeling (affective) aspect. Such feelings

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9 This relates to Jankowski and Holas's model of mindfulness (2014), which proposes that there might be the possibility of numerous metacognitive levels, with each level being both a meta-level for the previous and an object level for the next one.
include the feeling of knowing something, feeling of familiarity, feeling of confidence, feeling of difficulty, feeling of knowledge saturation, feeling of boredom, and feeling of satisfaction.\(^{10}\) Meta-sensing provides the internal feedback mechanism about the current progress, degree of comprehension, and future expectation of success or failure associated with a given task, and thus usually are framed in terms of the goals, constraints, demands, and challenges of a task (Efklides, 2008, p. 279; Tarricone, 2011). Yet, while it provides information for meta-thinking (and meta-knowing), meta-sensing \textit{in itself} involves a more open and peripheral awareness \textit{without} specific goals (– it often operates in a context that includes parallel processes that set and monitor goals).

Meta-sensing is similar to the Awareness of Transient Information (ATI) component of Grossenbacher and Quaglia’s (2017) model of Contemplative Cognition. ATI refers to the basic cognitive process of being aware of the \textit{transient objects} of experience such as sensory information, affect, memory, imagery, and thought. ATI is the central feature of those meditations designed to cultivate moment-by-moment choiceless awareness of the ongoing stream of consciousness such as the choiceless awareness of Zen shikantaza (just sitting) meditation. We will return to meta-sensing in our discussion of View in mahamudra practice.

\section*{Metacognition and Psychotherapy}

Clinical psychology, in particular psychotherapy, is an activity that includes making revisions to interpretations of experience, and has been conceptualized by some as a form of \textit{learning} (Bandura, 1961, Mahoney, 1977, Rose, Loewenthal, & Greenwood, 2005). Metacognition is a central aspect of learning, “the process of making a new or revised interpretation of the meaning of an experience which guides subsequent understanding, appreciation and action” (Mezirow, 1990, p. 1). The understanding of psychotherapy as an educational process goes all the way back to Sigmund Freud, the pioneer of the psychodynamic approach to psychoanalytic treatment, which he justly described as a kind of “after-education” (Freud, 1977, p. 504). Carl Rogers (1969), a pioneer of the humanistic approach to psychology, likewise described psychotherapy as a form of "\textit{significant learning}" (Rogers, 1959, p. 280).

Metacognition is critical to many psychoanalytic processes, including the analysis of the transference projection, the monitoring of emotional activity in emotion-focused therapy, and the differentiation and recognition of the voices of internal systemic parts in internal family systems therapy. Below we will describe more specifically how it applies to two contemporary models, Cognitive Behavioral Therapy (and its derivatives: CBT, MBCT, and ACT) and Attachment Therapy.

\textbf{CBT, MBCT, and ACT}. Cognitive behavioral therapy (CBT) is defined by Hofmann, Asmundson and Beck (2013) as a family of interventions founded on rational emotive behavior

\(^{10}\) The evidence that there is an affective nature of metacognitive experiences has been supported by neuropsychological research showing the location of metacognitive monitoring in the anterior cingulate cortex (Fernandez-Duque et al., 2000). The anterior cingulate cortex is connected to both affective and cognitive regulatory loops. Two affective loops have been suggested involving this cortex. The first detects the discrepancy from the goal set and generates negate affect in response to discrepancy, and the second monitors the rate of discrepancy reduction as one progresses towards the goal and can generate both negative and positive affect in response to the progress towards task completion (Efklides, 2006).
therapy, cognitive therapy, stress inoculation therapy, problem-solving therapy, schema therapy, and acceptance and commitment therapy (Dobson, 2010). Meta-analyses of the efficacy of CBT have shown large effect sizes for unipolar depression, generalized anxiety disorder, panic disorder with or without agoraphobia, social phobia, posttraumatic stress disorder, and childhood depressive and anxiety disorders (Butler, Chapman, Forman, & Beck, 2006).

While it is true that metacognitive strategies have always been a part of CBT (Wells, & Purdon, 1999), metacognitive awareness in these forms of therapy is generally in the service of changing the contents of the dysfunctional cognitive behavioral patterns into more adaptive patterns (Dobson, 2013). In recent years there has been the development of a "third wave" in CBT, with an explicit shift to more advanced metacognitive or contextual approaches to treatment (Hayes, Villatte, & Hildebrandt, 2011). These approaches focus on the recognition and acceptance of the content of the mind (beliefs, thoughts, emotions, and sensations) rather than changing them. Acceptance has implicitly been a central feature of many psychotherapeutic approaches, for example Freud’s psychoanalysis, Rogerian client-centered treatment (Rogers, 1995), and Gendlin’s focusing (Gendlin, 2012). Third wave CBT approaches, such as mindfulness based cognitive therapy (MBCT), and acceptance and commitment therapy (ACT), have, however, made explicit the psychological acceptance of experience as a central mechanism of therapeutic transformation.

MBCT is defined as an intervention primarily designed to increase metacognitive awareness by changing the patient’s relationship to negative thoughts and feelings without any direct conscious attempt to change belief in the content of negative thoughts or underlying assumptions (though change in assumptions or thought patterns are often an indirect outcome) (Teasdale, et al., 2002). Teasdale emphasizes that it is the metacognitive awareness into the unfolding mental content in the direct experience of the present moment (what we termed meta-sensing) and not conceptual metacognitive knowledge (meta-knowing and meta-thinking) that is the therapeutic agent of change, and that it is a deficit of a specific kind of metacognitive monitoring into that leads to depression (Teasdale, 1999). Similarly, ACT focuses on changing the client’s relationships to thought through cognitive defusion, “the creation of nonliteral, non-evaluative contexts that diminish the unnecessary regulatory function of cognitive events” (Hayes, et al., 2013 p.4). ACT and MBCT teach the client to come into direct experiential contact with the present moment (rather than being dominated by conceptualizations of the past and future) and, rather than attempting to alter the form, frequency, or intensity of cognitive experience (experiential avoidance), learn to accept it and be curious about it (Hayes et al., 1996).

ACT goes further than MBCT in articulating that through the repetition of metacognitive disembedding from cognitive fusion and accepting the present moment, there is a shift in psychological operation from self as content (i.e. from fusion with a conceptualized narrative of self) to self as context, in which one operates psychologically as the observing self (Deikman, 1982), and comes to notice a transcendent sense of self (Hayes et al., 2013). The ACT process of metacognitive defusion parallels concepts in psychological literature referred to as reperceiving (Shapiro & Carlson, 2009), decentering (Safran & Segal, 1990), deautomatization (Deikman, 1982), and detachment (Bohart, 1983). Such processes support a shift in perspective that leads to an experience of self beyond conceptual construction. This shift in operation happens by making the prior subject of experience (the narrative-content self) an object. It is this process of making the subject the object (Kegan, 1982). However, western therapies such as ACT do not have the
means to make self-as-context a stable trait. This is the goal of Buddhist contemplative psychology (discussed later).

Attachment Therapy. The physical and psychological attachment of the child to its caregiver is fundamental to the development and stabilization of the capacity for self-regulation, self-recognition, self-monitoring, and the development of a theory of mind (i.e. an understanding of people's minds work). Without first learning about internal regulation by being (externally) regulated by the loving presence of a mother or caregiver it is difficult for a person to develop affect regulation, an unfortunate result such as is seen in borderline character injury (Fonagy et al., 2000). Without first learning about the self through having care-givers direct their interest to realizing the uniqueness of the child, it is difficult for the self to develop capacity for self-reflection, such as is seen in narcissistic character injury (Bennett, 2006). Psychological attachment is fundamental to the development and functioning of a healthy self-structure.

In Attachment Disturbances in adults, Brown (2016) surveys the history of this field. John Flavell's (1979) appearance-reality distinction was an early influence. Following Flavell, Mary Main included a "Metacognitive Monitoring scale" in her adult Attachment Interview, which she used in research that discovered that those children with insecure attachment were more cognitively fused with their thoughts, beliefs, and mental models of reality, were less able to take them as mental representations, and were thus prone to distortion (Main, 1991).

Semerari, Dimaggio, and Liotti and their associates developed a highly refined modular perspective on metacognition. By separating it into six independent sub-functions (identification, relating variables, differentiation, integration de-centration, and mastery) they were able to differentiate specific deficiencies in borderline, narcissistic, and dissociative disorders (Semerari et al., 2003). Their Metacognitive Assessment Scale (MAS) allows the therapist to identify and work on developing a patient's specific deficient metacognitive sub-function. Brown and associates' psychotherapeutic model (2016) integrate several prior schools of thought and adds a more advanced set of post-formal metacognitive skills, as explained above (in his division of metacognitive skills into basic, intermediate, and advanced).

In sum, metacognition is the central feature of the psychological therapeutic process in many schools. In the disembedding from identification with dysfunctional experience such as maladaptive thoughts, negative beliefs, reactive emotions, and traumatic sensations, the client is able to develop perspective on their experience that allows for transformation.

Metacognition and Meditation

The construct of metacognition (in its various forms) has been used by a number of theorists to explain the mechanisms of contemplative practice. These treatments of metacognition have a very different flavor vs. theories developed in the traditional context of problem solving, self-mastery, and self-regulated learning. There is more overlap between contemplative and psychotherapeutic treatments of metacognition. This is in part because contemplative practices (and psychotherapy) are largely about deconstructive or disembedding processes that free the self from prior conditioning to open up new fields of awareness and freedom, while problem solving etc. are more concerned with building up capacities to achieve goals. The sub-domain of contemplative practice called "mindfulness" actually sits in between these two goals, as it has a
skill-building outcome of sharpening focused attention (i.e. concentration) that is a first step in many contemplative models; while focused attention is also an important capacity in many intellectual domains such as problems solving and learning.

**Mindfulness.** Mindfulness was polarized by Jon Kabat-Zinn (2009) through his mindfulness-based stress reduction framework (MBSR). MBSR was developed to address chronic pain, it has come to play a central role in a number of psychotherapies and self-improvement modalities including mindfulness based cognitive therapy (MBCT), dialectical behavioral therapy (DBT), acceptance and commitment therapy (ACT), and somatic experiencing. Kabat-Zinn (2009, p. 4) defined mindfulness as “paying attention in a particular way: on purpose, in the present moment, and non-judgmentally.”

**Beyond Mindfulness.** As mentioned, in contemplative essence psychology mindfulness is only a preliminary step (along with establishing a foundation in ethics and right motivation/intention). Churchill (2018 – the dissertation upon which this paper is based) surveys a number of cognitive models of contemplative practice in detail, including: Jankowski and Holas' and model of metacognition and mindfulness, which is developmental/hierarchical (2014); Yates' (2017) two-tiered metacognitive model of mindfulness; Grossenbacher and Quaglia’s model of Contemplative Cognition (2017); and Dorjee’s (2016) contemplative science framework which includes metacognitive self-regulatory capacity (MSRC) and the associated modes of existential awareness (MEA).

These models draw on many of the elements of metacognition (and executive functioning) described above. For example, Dorjee’s (2016) model includes the term "metacognitive self-regulatory capacity" of the mind (MSRC), to describe contemplative processes. As one could predict, contemplative practice methods and the attainment of various levels of contemplative capacity involve meta-knowledge, meta-skills, and meta-sensing; and include affective elements including motivation, self-confidence, and humility. As described form metacognition in general, contemplative metacognition includes components that sense, monitor, evaluate, and manage/control/regulate various cognitive processes including thought, perception, intention, attention, goals, values, beliefs, habits, and identity (sense of self) etc.

**Metacognitive levels.** Each of these models suggests stacked hierarchical structures illustrating which processes are meta for (i.e. operate upon) others. As we indicated above, the limitations of the concept of meta means that each theory breaks up the space in a different way. One issue is that certain processes that set the context for meditative practice, such as motivations/intentions/goals, attitudes of acceptance, and meta-knowledge about how the mind works, might be said to be foundational assumptions (bottom-up influence) or control processes (top-down influence) in these quasi-linear models, when in fact most sub-processes operate in

11 A more refined definition developed by Bishop et. al. (2004) can be summarized as follows: mindfulness is the self-regulation of attention on immediate experience, maintained by sustained attention, attentional switching, and the inhibition of secondary elaborative thought processes, that allows for the increased recognition of mental events characterized by a curious, open and accepting orientation towards present experience, leading to insight into the nature of cognitive experience, the adoption of a decentered perspective on subjectivity, and the transience of sensation, emotion and thought. In short, mindfulness is form of metacognition.
tandem in a co-creational system of feedback/feed-forward relationships (this idea is an application of the Buddhist principle of dependent origination; a truth that implies that component-based models of cognitive processes will always be substantial simplifications of the reality).

**Advanced metacognition.** Another thing that distinguishes models of contemplative metacognition from other models of metacognition is that many of the former are interested in advanced skills achieved by contemplative adepts with decades of training, as opposed to models used to guide academic learning, problem solving success, or self-improvement for "anybody." Thus they are more likely to include multiple stages or levels, and are more likely to form a bridge to developmental theories (which have many levels).\(^{12}\)

For example, Yates (2017) notes that following the fundamental practice of attention to breathing etc., as metacognitive decentralized awareness comes online, it can lead to personal insights of phenomena described in Buddhist psychology, including insights into impermanence, no-self, and reactivity (dukkha). The highest (meta-meta) level of Jankowski and Holas' (2014) model includes the meta-awareness of decentration and experiential acceptance. This model differentiates controlling vs. inhibiting processes, where mid-level metacognition controls perception, thought, emotion, etc., while higher level metacognition inhibits beliefs and thought-habits that impede the process-level goals. According to Jankowski and Holas (2014), the person who achieves this higher level of meditation then starts to become aware of clarity (fundamental awareness), the most fundamental and basic form of reflexive non-conceptual cognition that makes all other types of cognition feasible and forms the central feature of consciousness itself,

**Awareness, attention, and intention.** Grossenbacher and Quaglia’s model (2017) elaborates on the developmental ratcheting relationship between awareness, attention, and intention. Awareness, or "Awareness of transient information" (ATI), refers to the basic cognitive process of being aware of the transient objects of experience such as sensory information, affect, memory, imagery, and thought. ATI is the central feature of those meditations designed to cultivate moment-by-moment choiceless awareness of the ongoing stream of consciousness such as the choiceless awareness of Zen shikantaza (just sitting) meditation. Choiceless awareness, without focused attention or specific intention, is difficult to achieve, and many contemplative models include modes of intention and attention that deconstruct or disembed layers of cognitive processing that impeded choiceless awareness.

Grossenbacher and Quaglia’s model includes "intended attention" (IA), i.e. processes and practices designed to develop attentional stability. One has an intention to focus on a particular type of cognitive phenomena, and eventually achieves stable attention upon it. IA is the central feature of those meditations designed to develop attentional stability such as Indo-Tibetan calm/staying practice. From this concentration something is learned about that object of awareness and its conditioned nature, and one's understanding and processing habits begin to shift toward freedom from that form of conditioning.

\(^{12}\) Note however that developmental theories are theories of learned traits, i.e. skills, and while a skills can build layer upon layer through many levels simply through reflective practice over time (given the right conditions), in-the-moment metacognitive processes may be more limited in the number of layers in simultaneous operation.
From this new basis, new insights may emerge (or previously obscure meditation instructions may become comprehensible) leading to a new intention to focus attention on a different object (or different layer of mental processing). Using this "attention to intention" (AI), the meditator monitors, assesses, and adapts the higher-level goals (intentions) of the contemplative process. Grossenbacher and Quaglia define AI as the “attentional modulation and/or monitoring of an intention whether through facilitation of a selected intention, inhibition of competing intentions, sustaining an already operating intention, or reengaging one that has waned” (2017, p. 15). While AI monitors and adapts the processes of intending in the present, IA attends to the more global meta-process of adjusting the AI process itself. The model shows has awareness (ATI), attention (IA), and intention (AI) reciprocally strengthen each other.

As mentioned above, contemplative practice usually involves multiple goals/intentions operating in parallel at different levels. For example, while at the local level one may have an intention of focusing on boldly sensations, at a more general level one may be mediating to cultivated strong altruistic motivation to benefit the field of all interconnected beings, a central feature in the Indo-Tibetan bodhicitta practices.

Grossenbacher and Quaglia (2017) are clearer than other theorists that the practice of meditation is not sufficient to cause the development of this metacognitive contemplative cognition. In order for mature contemplative cognition to develop the practitioner needs to consciously understand, activate, and integrate the functions of ATI, IA and AI beyond the context of formal meditation practice. This perspective is shared by the Buddhist essence traditions of mahamudra and rdzogchen where the informal, pathwalking practice of integrating meditative awareness into everyday living is fundamental to the understanding of the contemplative path.

**Views: Modes of Existential Awareness.** None of the models described above contains an elaborated explanation of the system of "views" described in mahamudra practice, the levels of the non-conceptual awareness (i.e. meta-sensing, of what arises in the mind moment-by-moment, Grossenbacher and Quaglia’s "Awareness of Transient Information"). Dorjee’s model explicitly acknowledges the need to better articulate this progression of views, which they call "modes of existential awareness" (MEA), come from the increasing degrees of de-reification achievable with contemplative practice (what Wilber calls "state stages", 2014). Again, developmental theory can be useful here, because it does not become daunted in trying to articulate multiple iterations of meta-levels, but takes the transcend-and-include process of hierarchical complexity for granted in its articulation of levels.

**In summary,** metacognition is an important construct and field of study for the investigation into mapping the contemplative essence psychology of Indo-Tibetan Buddhism in terms of mature adult cognitive and ego development. Through the process of complex adult cognition, metacognition facilitates ego development, and, as discussed above, metacognition also facilitates transformation through the stages of insight in contemplative psychology. As a construct and mental function it is engaged in both the constructive processes of structural ego growth and in the Indo-Tibetan tradition, the deconstructive processes of transcending identification through de-reification with those structures, which then allows a transformation in the fundamental identity of an individual whilst maintaining the optimal functioning of the self-structure.
Appendix 3: Three Phases of Buddhist Contemplative Psychology

The tradition of Buddhist contemplative psychology originates with the great Indian sage Siddhartha Gautama (known as Shakyamuni Buddha), born around 563 B.C.E. Through the view of the Indo-Tibetan Tradition, Buddhism has evolved through three major stages of evolution, or turnings of the wheel of the dharma. Similar to fundamental paradigm shifts seen in other forms of science (Kuhn & Hawkins, 1963), this evolutionary process, here into the causes of human existential unhappiness, is easiest understood as a progression of understanding with each stage supported by the cognitive and metacognitive findings of the prior stage. The growth of Buddhist psychology was dependent upon the development of what the cognitive psychologist Jean Piaget referred to as the psychological capacity for formal operational thinking. The formal operational stage of cognition allows for the capacity for abstract thought: the use of hypothetical and deductive reasoning to reflect upon situations that are not present in concrete reality (Piaget, 1971). This stage of cognition includes the ability to problem solve in a logical and methodical way, and metacognition: the important psychological capacity to monitor and think about one’s own thought processes. With the capacity for causal analysis and self-reflection available at this level of cognitive complexity, teachings could be developed that focused on understanding the cause and effect of the pervasive reactivity characteristic of the undeveloped mind. With a foundation in causal analysis, Buddhist contemplative thought then evolved from a reductionistic perspective on human suffering (abhidharma, higher teaching), to a systems perspective (madhyamaka/middle-way), and then to a later metasystemic perspective (buddha nature) (Guenther, 1989; Wilber 2014; D. Brown, personal communication, 2017). Each phase of the teaching is an expression of a cognitive paradigmatic shift in understanding human suffering and happiness and its causes, a turning of the wheel. As we will see later, these shifts map well to our modern understanding of cognitive development.

The First Turning of the Teaching: The Lesser Vehicle

The first phase, known as the Hinayana, or Lesser vehicle, due to the focus on individual well-being, was formalized at the third Buddhist council under the patronage of the Indian emperor Ashoka around 250 BCE. The teaching addresses the cause of existential suffering in the form of dukkha, the suffering of cyclic reactivity, caused by the ordinary mind’s conditioned response to mental events. Dukkha is the result of samsara, conditioned reactive cyclic existence, the cycles of repetition compulsion that are caused by ignorance into the nature of awareness and the resulting reactivity that leads to compulsive activity.

The four noble truths. The Buddha’s analysis of the cause and cure for suffering, the four noble truths, began with the observation that there is a human disease, dukkha, cyclic reactivity. It does not mean, as early western translations and interpretations would assert, that all life is suffering. The root of the word dukkha is etymologically related in Sanskrit to the prefix dus meaning bad, and the word kha, the original word for axle hole in the ancient language of the nomadic Aryans. The word dukkha literally means the uncomfortable experience of riding in a

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13 Whilst the tradition maintains that Shakyamuni (c480 BCE – 400 BCE) taught all three turnings during his lifetime, and that a minority who had a greater capacity for a more sophisticated path initially practiced the latter two phases of the teaching, it is believed that understanding of the later turnings evolved as the cultural environment became more open to their innovations.
wagon when the wheel is off the central axis rather than aligned (Tirch, 2015). Shakyamuni was pointing to the fact that human life involves some experience of reactivity, traumatic stress, dissatisfaction, and imbalance, no matter how good one has it.

The second of the four noble truths is that the cause of dukkha is the mind’s conditioning (karma) to reactive craving (tanha). This addictive grasping of the mind is, according to the Buddhist psychology of information processing (abhidharma), driven by the mind’s conditioned reactivity to move towards events to create more experience (clinging), to move away from experience to avoid it (aversion), or to lapse into a loss of awareness though fusion with experience (ignorance or confusion). These three compulsive mental activities are said to dominate the normal reactive mind, obscuring the mind’s natural condition of openness, clarity, and peace (Brown, 2006). The traditional Buddhist belief is that this cycle of compulsive mental and emotional activity is driven by cause and effect (karma) in a multi-life process. Buddhist psychology sees the cycle of psychological reactivity as driven by conditioning inherited from past human and animal lives since beginningless time.

Reincarnation aside, Shakaymuni’s understanding can be interpreted as a naturalistic analysis of suffering describing the conditioning elements of both nature and nurture, the epigenetic transmission of trauma (Yehuda et. al. 2005), “the reincarnation of former ego-structures” (Freud, 1923, p. 48), and the intergenerational transmission of behavior (Loizzo, 2011). The idea presented by the Buddha that prior traumatic conditioning is at the root of the individual’s bodymind is now being affirmed by the discoveries of science, through mechanisms including epigenetic conditioning of trauma (Kapoor et al., 2006; Miller, 2014).

The cycle of dependent origination. The abhidharma are the systems of Buddhist cognitive psychology that each tradition follows. The Indo-Tibetan tradition draws its abhidharma particularly from the Abhidharmasamuccaya by 4th century Indian Asanga. In the abhidharmic analysis of the causal workings of the mind it reveals that when fully understood there is no solid permanent self but a complex mind-body system of sensations, instincts, emotions, thoughts and perceptual processes known as the five skandhas. When disturbed by traumatic conditioning this system creates the illusion of a permanent self (Tsering, 2010).

This sense of a permanent self-existent self is activated due to reactivity caused by cycles of cognitive grasping, aversion and confusion that form a hidden 12-fold cycle, seen below in Figure A2, at the heart of Buddhist psychology. This cycle of traumatic repetition is known as the cycle of dependent origination (pratityasamutpada). From the perspective of Buddhist psychology this is the cycle that drives our ordinary unhappiness.
Figure A2. The 12-Link Cycle of Dependent Origination.

Figure A2 illustrates: 1. Basic Confusion (ignorance of any aspect of how the mind works, as exists at birth); 2. Volitional Impulses (automatic or unreflective reactions that further condition the mind to be reactive) > 3. Conditioned Consciousness (the resulting default "operating system" of consciousness, conditioned by reactive-stress and self-protection) > 4. Reified-Self Image (creation of an illusory reified self-image) > 5. Projective Perception (distortion of the sense perceptions, now further biased towards threat, distrust, and disconnection) > 6. Conditioned Contact (contact with the world is this distorted and contaminated with chronic reactivity) > 7. Hedonic Tone (bare sense perception is given a hedonic tone, i.e. is labeled as pleasant, unpleasant or neutral) > 8. Addictive Craving (the bodymind either moves away or towards further experience, in obsessive grasping or aversion) > 11. Cyclic Birth (reactive choices of the traumatized-self further condition the mind into a life-style of dissatisfaction) > 12. Illness and Death (the conditioning of unnatural traumatic stress leads to dysfunctional manifestations of aging and dying processes. and created the conditions for the related trauma and conditioning to
be passed on to future beings, continuation of the cycle of dependent origination). (For a more in-depth explanation, see Churchill, 2018.)

The understanding of the 12 links is fundamental to understanding how all the different aspects of the Buddhist treatment strategy, the eightfold path, synthesize into an effective path to extinguishing reactive suffering and unfold the human potential for happiness, altruistic activity and evolution. Modern science, including research into default mode network of the human brain (Brewer et al., 2013) and studies of addiction (Witkiewitz et al., 2013) and trauma recovery (Tsering, 2010), supports this model of the cycle of reactivity, traumatic repetition and compulsive activity. The third noble truth, which indicates that psychological and biological cycle of reactive grasping, caused by the fundamental confusion of awareness with its conditioned contents can be suppressed, is also increasingly supported by such research. The suppression or removal of this cognitive pattern is called nirvana in Buddhism, which literally means cessation or extinction.

**Fourth Noble Truth: Treatment path.** The fourth Noble Truth is the Buddhist equivalent of a treatment approach, a holistic treatment plan of contemplative lifelong healing addressing an accurate view of experience, wholesome intentions, truthful speech, appropriate action, socially beneficial livelihood, consistent effort, and the practices of mindfulness and meditative concentration (Hanh, 1999) (Tsering, 2005). The treatment path leads to: 1.) The development of insight into the three characteristics (impermanence, reactive suffering, and true identity as awareness); 2.) The understanding of mental cause and effect as indicated in the cycle of dependent origination, and its relationship to unhappy and happy mental states; 3.) The threefold development of ethics, meditative concentration, and psychological insight leading to; and 4.) Nirvana, the extinction of the addictive emotional and psychological defilements that cause personal suffering (Loizzo, 2012).

The training associated with the turning of the first wheel addresses the problems of personal traumatic conditioning, and, as such, is often referred to as the Hinayana, or personal vehicle, since its focus is the individual rather than the greater community of sentient beings. From the mind perspective, the reactivity causes mental distractibility, and a discontinuity of awareness. *Mind* here refers to awareness, the basic capability for non-conceptual knowing, and attention, the ability of the mind to hold to a particular mental event. Mental events in Buddhist psychology refer not just to the experience of sensory information (visual, auditory, kinesthetic etc.), but also the processes of thought, memory, and imagination.

The goal of treatment/practice is to reduce the causes of reactivity, distractibility, disorganization, and constant mental elaboration, and to increase mental equanimity, the continuity of awareness, the capacity to stay on an intended object-of-focus, to increase organization of mind, and to silence mental activity when needed. The training consists of behavioral modification (ethical precepts), psychoeducation, basic mindfulness and attentional control. Behavioral modifications are designed to interrupt the cycle of dependent origination by not allowing the development of a lifestyle driven by compulsive grasping and traumatic repetition. Training in the conceptual understanding of the mind (abidhama psychology) helps support an accurate view of the mind and experience to understand the 12 links of dependent origination. Basic mindfulness is practiced to reduce reactivity to unpleasant hedonic experience at the 7th stage. The mindful practice of accepting experience and no longer avoiding unpleasant
sensations cuts off the cause for the 8th stage of compulsive grasping. The practice of attentional stability (calm/staying concentration meditation) reconditions the default attentional system at the 3rd stage.

The Second Turning of the Teaching: The Great Vehicle

According to the Tibetan tradition, the second phase of the teaching was presented on Vulture Peak Mountain near Rajagriha, when the Buddha was said to have taught on the empty uncompounded nature of all phenomena (Skt: shunyata) and on compassion (Skt: karuna) (Hanh, 1999). These two elements form the heart of the Mahayana, the Great Vehicle, or second turning of the wheel. Historically, the approach is philosophically grounded in the madhyamaka school founded in the second century CE by Nagarjuna, the abbot of Nalanda University. The Mahayana includes the first turning insights into the reactivity and impermanence of human experience, but deepens the understanding of the deconstruction of the ego (no-self) and impermanence with a more sophisticated understanding that the concepts such as self, suffering, and the freedom from suffering, are themselves empty of an essential nature. In the Mahayana view the entire cycle of dependent origination reviewed earlier is caused by mistaken reification. The fundamental psychological problem with reification (Link 1) is that it causes self grab, which obscures the natural equanimity of awareness. It is the recognition of the lack of thing-in-itself-ness, the entitylessness, and constructed nature of all phenomena, whether psychological or physical, that is known by the term shunyata, translated as emptiness, but perhaps better served by the term openness to ensure that it is not interpreted as a nihilistic vision of human experience when in fact it is the opposite.

Emptiness/openness. In the contemplative approach of the madhyamaka, the mind trained through prior concentration practice (stabilization of Link 3) is used to direct a high-speed non-conceptual search through on-going mental experience and the psychological constructions of external reality, to see if any self-existent substantiality can be found (Brown, 1986). This search leads to the experience of the unfindability, unlocatability, and insubstantiality of mental experience, the hallmark of the realization of openness (Hixon, 1993). This is the realization of non-entityness, that the self, its experience, and all external reality are experienced as merely constructs without a substantial self-existent nature (Brown, 2006). “Deep examination of the essence of mind through wisdom will reveal the mind in an ultimate sense to possess neither intrinsic nor extrinsic reality; it is without structure” (Namgyal, 2006, p.64).

Following the realization of the emptiness of self and external reality, the contemplative investigation in the second turning of the wheel deepens into examination of the unconscious conditioning of the 1st, 2nd and 3rd links. This is accomplished through the practice of recognizing that time, the temporal unfolding experience of reality, is also a mere construct (Brown, 2006). The realization of this contemplative insight leads to the disembedding of the observing ego from the construct of time, and the experience of a timeless, unchanging awareness. Brown quotes Tashi Namgyal, the author of the Moonlight mahamudra meditation manual: “the way the realized mind stays (like space) is that there is no elaboration of the three units of time (arising, staying, ceasing, nor any dualities, (eternalism/nihilism, coming/going)” (2006, p. 345). The realization of the mind’s timelessness opens the meditator to the experience of the simultaneous interconnectedness of all potential events. This realization in the Mahayana is what matures into the realization of compassion and the importance of the transformation of society, as all beings
are intimately and simultaneously interconnected. This important aspect of the path is central to 
the teaching on the Bodhisattva path, and career of compassionate non-dual service that leads to 
the awakening of not just the individual but the collective.

The Third Turning of the Teaching: The Buddha Nature Vehicle

It is believed in the Tibetan tradition that the third turning was taught by the historical Buddha 
to an audience of Bodhisattvas at a number of locations in India. Historically, the philosophical 
foundations are found in the yogachara school, originating in the fourth century with Asanga 
guided by his visionary experiences of Maitreya, the mythic Buddha of the future. Whilst the 
maidyamaka school asserts the fundamental unconstructed nature of human experience, the 
yogachara school asserts that the mind, awareness, has a primordial reality, and that this mind 
reality, or buddha nature (Skt: tathagatagarbha) is ultimately real and the source of all positivity 
and goodness in the human mind. Later Indian masters from Nalanda University integrated the 
maidyamaka and the yogachara view into the yogacara-svatantrika-mahayamaka. This position 
held the madhyamaka position that reality is essentially empty but that the methodology of the 
yogachara school helped students progress along the path to that realization (Mipham, 2005). 
Whilst the Indo-Tibetan tradition has multiple lineages with slightly differing approaches, in 
reality they address the same issue.14

The yogachara terminology is used by the Tibetan essence of mind traditions to explain their 
most refined practices, the generation and completion stage (tantra), great seal, (Skt: mahamudra) 
and great completion (Tbt: rdzog chen) traditions. Whilst the three approaches of tantra, 
mahamudra, and rdzogchen have differing terminology and methodology in realizing the buddha 
nature, they generally agree that the fundamental basis of awareness is a non-dual union of 
openness/spaciousness/mother consciousness and the clear-light awareness/lucid knowing/infant 
consciousness, the union of which is also known as the dharma body, the body of truth. It is the 
recognition of this fundamental awareness at the 1st link that cuts the entire traumatic repetition of 
dependent origination.

The mother, openness, is the phenomenological open basis, ground, and foundation of all 
experience. The Bon rdzogchen lineage of Zhan Zhung Nyan Gyud, describes it as the space of 
the nature of phenomena with nine qualities: boundlessness, omnipervasiveness, and unlimited 
expansiveness, without top or bottom, immeasurableness, uncontractedness, great vastness, 
everlasting and immutable (Wangyal, 2000). This open phenomenological space is described as 
the Mother because it is the mother of all phenomenological existence, freedom and 
conditionality, matter and mind, good and bad, truth and illusion. Thus, this openness is not an 
inert void, “is not some abstracted and lifeless emptiness, but an utter fullness that.... is vibrant 
with energy” (Guenther, 1989 p. 203). In a similar way the open field of outer space is full of the

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14 From the point of view of individually ascribed names, there are numerous traditions, such as those of 
the simultaneously arising as merged, the amulet box, possessing five, the six spheres of equal taste, the 
four syllables, the pacifier, the object to be cut off, rdzogchen, the discursive madhyamaka view, and so 
on. Nevertheless, when scrutinized by a yogi, learned in scripture and logic and experienced (in 
meditation), their definitive meanings are all seen to come to the same intended point. (The First Panchen 
Lama, Lozang-chokyi-gyeltsen, (Berzin translator), 1997, p.98).
fecundity of galaxies, stars, and solar systems. It is not an abstract void – instead a field full of life.

On the other hand, the infant consciousness is the primordial, lucid nature of the mind, an awareness that is brilliantly awake, referenceless, pristinely non-conceptual, and the most basic form of cognition or knowing. At the deepest fundamental levels of the human mind the unbounded openness is inseparable from this referenceless clear knowing.

In the Indo-Tibetan tradition the first turning of the wheel focuses on treating traumatic reactivity and suffering through understanding the cycle of dependent origination that conditions experience, the ethical practice of behavioral modification (links 9,10,11), mindfulness meditation (link 7), and the attentional development of calm/staying (link 3). In the second turning treatment focus is on practicing recognizing the fundamental openness of experience to liberate the mind from the human habit to reify all experience of self, other, and the world. This matures into the understanding that the entire cyclic nature of suffering is caused by the failure to recognize the fundamental openness of the mother which results in ensuing reactive reification and the obscuration of the clear light of the infant consciousness. In the third turning of wheel it is understood that suffering is due to basic confusion and ignorance, (Skt: avidya, Tbt: marigpa) as to the true nature of the buddha mind that is always already right here (link1). The recognition of the buddha nature is obscured by the ordinary operations of consciousness, including even the activity of meditation itself. The aim of treatment of this cognitive dis-ease in the mahamudra and rdzogchen traditions is of a similar nature, but the methods differ slightly.
Appendix 4: Buddhist Essence Psychology: mahamudra and rdzogchen

As mentioned above the Buddhist tradition of contemplative psychology can be divided into three developmental stages (lesser, greater, and buddha/essence vehicles), and this section investigates the contemplative psychology of the third paradigm, the essence traditions of mahamudra and rdzogchen, and how these teachings have their foundation in the fundamental insights of the first and second turnings, but also expands upon them by exploring the nature of mind: the clear light spacious nature of awareness itself.

Within the Indo-Tibetan tradition there arose in the 19th century, in response to the authoritarianism of the ruling Gelugpa order, an ecumenical movement known as the rime (all-embracing, unlimited, impartial (Schaik, 2011). This universal approach to contemplative practice respected the separate lineages and yet was able to draw upon the best elements of the five schools. This movement continues today and is best personified in His Holiness the 14th Dalai Lama, who studied with many great masters across the tradition, and took His Holiness Menri Trizin, the leader of the indigenous Bon tradition, as one of his mentors in rdzogchen (great completion) practice.

An outcome of this non-sectarian movement was the synthesis of the mahamudra and rdzogchen traditions. Meditation masters such as the 3rd Karmapa, 5th, 13th and the 14th Dalai Lama worked with both mahamudra and rdzogchen practice.15

History of Mahamudra

Mahamudra (phyag chen), the great seal, great embrace, or great symbol is a tradition of concepts and practices within the Indo-Tibetan Buddhist tradition. Maha means great in the sense of a great openness beyond limitations, and mudra refers to the expressive nature of phenomenal experience as viewed from the awakened mind (Ray, 2002).

Mahamudra is divided into sutra, tantra, and essence approaches. Sutra mahamudra is based on the Buddha Nature teachings of the third turning of the uttaratantra shastra of Maitreya (Gyamtso, 2000) and outlines a path to realization attained through the practice of the six paramitas as the bodhisattva aspirant journeys five paths and ten stages to buddhahood). Tantra mahamudra is based on the anuttarayoga tantras (unsurpassable union process) of the New Translation school and outlines a path of practice based on the transformation of the self-image, inner narrative, neurochemistry and energy system of the individual through visualization and yogic exercise (Loizzo, 2012). Essence mahamudra refers to the approach of direct investigation into the nature of mind and it is comparable to the rdzogchen teachings of the rNing ma and Bon traditions (Ringu, 2017).

The essence tradition of mahamudra originates with the great adept Saraha, who it is believed lived in India in the first millennium CE. He is regarded by the Tibetan tradition to have been the

15 For example the text Buddhahood in the Palm of the Hand, The Union of Mahamudra and rDzogchen by the 17th century master karma chags-med (Chagme, 2000) outlines a path of practice using mahamudra to recognize and stabilize the realization of buddha nature, and then the use of rdzogchen practice to bring that realization to fruition.
teacher of the philosopher and abbot of Nalanda monastery, Nagarjuna, and the mountain hermit Savaripa. Maitripa (986-1063), received visionary instruction from Savaripa, and outlined in his written works the doctrine of ‘not taking to mind’ (amanisakara), mentioned below.

In Tibet there are numerable lineages of mahamudra practice in the Kagyu, Sakya and Gelug traditions of the new translation school. Important to the lineage of mahamudra practice described in this section is the Tibetan translator, Mar pa Chos kyi bLo gros (1012-97) who studied essence mahamudra with Maitripa, and tantra mahamudra with the ex-abbot of Nalanda, Naropa (d. 1040). The new approach to mahamudra outlined in sGam po pa’s Explanation of the Sole Path of Mahamudra outlines the practices in a four yoga model comprising preliminary practices to prepare the mind and body, ordinary calm/staying practice to calm the events of the mind and develop attentional stability, ordinary special insight practices to recognize the empty lucid nature of awareness, and the extraordinary practices to recognize the non-duality of appearance/awareness-emptiness, and to effortlessly mature the realization (Brown, 2006).

A lucid, unceasing momentary awareness is the one-pointed stage of yoga. Understanding the essential nature of that awareness as nonarising emptiness that transcends conceptual modes or reality and unreality is the nondiscriminatory yoga. Understanding diverse appearances as being one from the standpoint of their intrinsic nature is the one-taste yoga. An unceasing realization of the union of appearance and its intrinsic emptiness is the great equipoise of nonmeditation yoga. (sGam po pa in Namgyal, 2006 p. 358)

The four yogas are also known by the names of shamatha, vipashyana, yugganaddha, and mahamudra.

**View: The Path of Development in Mahamudra**

In order to understand mahamudra it is necessary to understand the concept of tawa (Tbt.) or dristi (Skt.) which literally means, view, meaning the view from which one experiences phenomena. Brown (2017) explains that the view is dependent upon the basis of mental operation (spod yu), the loci of identity, level of awareness or vantage point from where the mind’s metacognition is operating. According to Ras chung, student of Mi la ras pa, there are four main bases of operation, see Table 2 below (awareness fused with thought and self-structure, awareness beyond self-structure, awareness beyond temporal processing, and awareness beyond the information processing system), with each level sequentially freer from the subtler and subtler reifications of unconscious psychological and perceptual structures. Each basis of operation has the capacity to view phenomena (take the event perspective) and self-recognition (the mind perspective). The event perspective refers to the perspective of mental objects perceived at that particular level of awareness i.e. concrete objects such as the thoughts and subtle objects such as abstract patterns. The mind perspective refers to the perspectival capacity to self-reflect and recognize the level of awareness from which the mind is operating i.e. to make awareness, the subject, the object of itself.

Indo-Tibetan psychology is based on an understanding of four levels of mind (four bases of operation); the coarse, subtle, very subtle and awakened. These are four levels of mental experience are always present in experience, but they are not necessarily conscious. Whether a level of mind is made conscious or not is dependent on the level of view, the basis of operation
from which identity is operating. Therefore, the basis of operation moves through the various levels of mind. In essence practice the meditations are less about meditating on something as they are about learning to operate from a new level of awareness, a new basis of operation, and from there to take a new perspective or view on experience.

The course level of mind is the level of day-to-day experience based in the linguistically created world of thought by the self. At this level of mind, the events we perceive are solid, a reified world of objects based on language. The next level of mind is the subtle level of mind that is perceived in information processing prior to naming of the coarse level. At this level the events are just the high-speed movement of perceptual information such as the abstract patterning of pure sensation, sound, and color. The mind at this level is functioning prior to thought, and the construction of self, and if the basis of operation is operating at this level it functions beyond the structure of self. The third level of mind is the very subtle level of mind. At this level the mind is a vast interconnected spacious field of very subtle energy and the basis of operation that perceives this is level of mind is a timeless, non-dual individual basis of operation. The fourth level of mind referred to earlier as the buddha nature, dharmakaya, is a non-dual unity of referenceless awareness (rigpa) and unbounded space (ma) where the field and the basis of operation perceiving the field are undivided. These four levels of mind and their perceived objects are shown below in Table 2.

Table 2. Levels of Mind, Basis of Operation & Event.

<table>
<thead>
<tr>
<th>Level of Mind</th>
<th>Basis of operation</th>
<th>Event Perspectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coarse</td>
<td>Awareness fused with thought and self-structure</td>
<td>Solid object</td>
</tr>
<tr>
<td>Subtle</td>
<td>Awareness beyond self-structure</td>
<td>Energetic object</td>
</tr>
<tr>
<td>Very Subtle</td>
<td>Awareness beyond temporal processing</td>
<td>Interconnected field</td>
</tr>
<tr>
<td>Awakened</td>
<td>Awareness beyond information processing</td>
<td>Space</td>
</tr>
</tbody>
</table>

The table above shows a basic relationship between the level of mind, the event experienced at that level of mind, and the basis of identity operation at that particular level. The basis of operation shifts during meditation and initially this will be a brief state but as practice continues the state will become a trait, and a permanent developmental stage of identity. The levels of mind, basis of operation, and objects are also hierarchically nested, which means that when operating from awakened awareness beyond information processing that the awareness can cognize space, the interconnected field, energetic objects and solid objects. However, when
awareness is fused with thought and self-structure it will be unable to perceive the subtle, very subtle levels of mind.

**sGam po pa’s Four-Yoga Model**

Churchill (2018) examines in detail the four-yoga model of sGam po pa’s mahamudra, a practice that unfolds through the developmental sequence of disembedding awareness as basis of operation from subtler and subtler psychological structures. The meditator first calms the mind (shamatha), then by gaining insight (vipashyana) into the constructed nature of the self, time, and individuality recognizes awareness to be already beyond all structures to a basis of operation, buddha nature, without any reference points (Brown, 2006). The four methods are described as: One-pointed yoga (calm/staying; shamatha), Non-discriminatory yoga (insight; vipashyana), One taste yoga (union of calm staying & insight), and Non-meditation yoga (mahamudra), each summarized below.

**One-pointed yoga: calm/staying (shamatha).** The practice of calm/staying refers to the calming of mental events in the mind such as thought and conflicting emotions, and the staying of the attentional system on the chosen object of mediation. The basic cognitive skills to be developed are motivation, directing attention, intensifying the attentional interest to the object, and metacognitive awareness.

Motivation needs to be developed to get the practitioner to begin and continue the process of practice. "Steering" involves the repeated redirection of the wandered attention back to the meditation object. The practitioner learns to have volitional access of the attention, developing the capacity to shift from vague interest to admiration to fascination of the object by increasing the salience of the details presented whether that is the breath, sensations of the body, a visual object, thought (mantra), or visualization. This would be akin to zooming in to have a close look at an object under the microscope. Metacognition in the context of calm/staying meditation is related to the *non-conceptual* intelligence, or clarity of knowing what is arising within the experience of the meditator, and therefore being able to adjust the meditation accordingly. As students learn to develop calm staying, they sequentially work through the ability to steer, intensify the attention, and brighten metacognition.\(^{16}\)

**Non-discriminatory yoga: insight (vipashyana).** Once the meditator develops the capacity for calm/staying he or she is ready to use the stable mind to gain insight into the constructed nature (emptiness) of psychological reality. The function of insight meditation is twofold. First, to come to understand that all psychological phenomena that arise in experience (perceptual, cognitive, affective, and physical) are psychologically constructed (i.e. "empty," or based on confusion/ignorance). This first stage of the practice is a negation of the thing-in-itself-ness of the pixels of information.

\(^{16}\) The tradition has a number of ways of breaking up the stages of calm/staying but essentially the meditation has two main phases: with support, and without support. Calm staying with support describes the development of continuous and complete staying on the meditation object where the object still appears to be permanent and therefore the mind is operating at the coarse level of operations. Calming staying without support refers to the development of the capacity to stay so close to the object that the meditator becomes aware of the impermanent nature of the meditation object as momentary perceptual pixels of information.
object. It leads to an experience of the psychological openness of experience that releases the ‘grab’ of the object over the attentional system, which in turn allows for the second stage, which is a clear recognition of the nature of the awareness that perceives the object.

The realization of the emptiness of self happens through a meditative search into the meditator’s direct experience to see if the self can be discovered as a substantial independent entity. This culminates in the direct experience of the nonentityness of the self, the experience of emptiness. The realization of the emptiness of experience can then be generalized to all other psychological structures and experience such as thought, the body, emotional states, pain, etc.

Brown (2006) in his synthetic review of mahamudra through the structure of the four yogas breaks the phases of special insight into the emptiness of self, phenomena, and time. This last stage, the emptiness of time, sets up the basis of psychological operation needed at the beginning of the yoga of One Taste. Awareness of the emptiness of time deepens the contemplative analysis of experience via insight in meditation that the deepest substrate of awareness does not arise and pass away like temporal experience, but functions outside the psychological constructs of past, present, and future and is continuously operating even during waking, dreaming and deep sleep states (Mason, 2010).

One taste yoga: union of calm staying & insight. The basis of psychological operation for the one taste yoga (yugganaddha) is the very subtle, timeless level of awareness. This basis of operation is established by investigating that awareness itself is changeless and beyond the conventional coming and going of psychological time. Exploring the timelessness of the spacious phenomenological field of perception, and then recognizing the nature of the awareness that perceives such field can also establish timeless awareness. This is called establishing the view. The prior calm/staying training is needed for the stability and capacity to hold the perspective long enough for it to become established.

Tashi Namgyal explains that there are three things to be determined about the abiding nature of this very subtle mind: the essence of mind is empty, its self-nature is luminous clarity, and its aspects consist of the diverse display of experience appearance. The practitioner recognizes that this field of non-conceptual awareness and phenomenological space is inseparable and extends in all directions without boundary. Again quoting Namgyal (p. 216), “Whatever is the nature of space is the nature of awareness. Whatever is the nature of awareness is enlightenment. For this reason awareness, the expanse of space and the mind of enlightenment, are nondual and inseparable”

Once the view of the empty lucid nature of the very subtle level of mind is stable the practitioner learns reverse samadhi, to ease up on the relative activity of ordinary coarse level thinking, but to simultaneously maintain the view. Then whatever mental events arise moment-by-moment within the field of the very subtle level of mind is experienced as the non-dual expression of this field. Non-dual here means that the unbounded field of awareness-space and the objects in awareness arise together, and are co-emergent (Namgyal) and simultaneously (Brown, 2005) arising.

Tashi Namgyal (p. 225) lays out three stages to the actual identification of the spontaneous coemergence: identifying the mind co-emergence of the mind, which addresses the mind
perspective, and the cognitive co-emergence of mental activity and perceptual appearance, which address the event perspective. “When the meditator perceives the clarity of perceptive form and its unidentifiable emptiness as being the inseparable, denuded union of appearance and emptiness or emptiness and appearance, he has gained insight into the intrinsic coemergence of appearance” (Namgyal, p. 233). Brown (2005) calls these mind-simultaneous, cognition-simultaneous, and appearance-simultaneous.

The meditation on the simultaneous co-emergent mind is a process of deeper and deeper familiarization with the inseparability and one taste of the empty lucid awareness and the manifestations of appearance. Initially the student realizes the inseparable nondual nature of the simultaneous co-emergent mind with all cognition and appearance. As the meditation deepens the reactive identification with objects releases and then finally as it matures there is no distinction between awareness and its content.

Non-meditation yoga (amanisakara). At the heart of the mahamudra approach to addressing basic confusion, and associated with adepts Saraha, Maitripa, and Tilopa is the doctrine and practice of amanisakara. Amanisakara is the non-meditation discipline that follows the prior three yogas and provides the meditator with the conditions to realize the nature of mind. Amanisakara (Tibetan: Yi la mi byed pa) is translated as non-mentation, non-egocentricity, not taking to mind, and non-particularization. It is at the heart of the third turning approach to contemplative practice (Higgins, 2008; Brown, 2006).

In the psychology of the abhidharma, the manisakara is the last in a sequence of five omnipresent mental factors of information processing (contact, discernment, feeling, intention and attention) (Tashi, 2010) that are active in every moment of experience. Manisakara has numerous translations, attention (Tashi,) ego centric demanding (Guenther & Kawamura, 1975), bringing to mind, setting one’s mind upon, focus (Higgins, 2006) taking to mind, mental engagement, particularizing (Brown, 2006), paying attention, or taking to mind (Berzin, 2017). Essentially, manisakara is the activity of the information processing system that engages with a mental event and in doing so simultaneously creates the experience of subject and object, the attention and the attended. If awareness is con-fused with this attentional movement, it then identifies itself solely as the attentional system and then the larger field of open phenomenological experience (Ground) will be obscured. Brown (2006, p. 438) refers to this attentional subject as individual consciousness.

In the term amanisakara the beginning A is a negative particle, and is referring to the negation of the information processing and attentional system (manisakara) of individual consciousness. This is achieved through orienting the nondual timeless awareness beyond identification with the artificial mental engagement of information processing, and towards any specific object towards the whole field of experience. Nonmeditation (sgom med) means precisely this: doing away with any artificial activity that can be considered meditation” (Brown, 2006, p 412).

When the mind does not move toward any seeming appearing object, and more specifically does-not-take-it to-mind, the most rudimentary basis for any discrimination falls away, and the practitioner completely transcends all false conceptualization. Mastery of not-taking-to-mind completely purifies the mind of any tendency to move toward or away from seeming

By perfecting this non-meditation, the meditator attains naked, unsupported awareness. This nondiscriminatory awareness is the meditation! By transcending the duality of meditation and meditator, external and internal realities, the meditating awareness dissolves itself into its luminous clarity.

rDzogchen

rDzogchen, or great completion practice, is the culmination of contemplative practice in the indigenous Bon tradition and the oldest Buddhist tradition in Tibet, the rNing ma. In both systems it is the apex of nine stages where each system is a practice path unto itself, and there are different paths of practice for different levels of understanding. In the Bon tradition the lower stages focus on shamanic practice while the rNing ma model addresses the foundational Buddhist practices of the Hinayana. Both traditions then progress through Bodhisattva teachings on emptiness and compassion, and then Tantric approaches using visualization and yogic techniques to culminate in rdzogchen.

rNing ma schools have classified the rdzogchen teaching into three series of teachings. The first is the sens sde, or mind series, which provides the most detailed step-by-step explanation and instruction in the path with an emphasis on non-conceptual awareness knowing. This approach is similar to the four-yoga model of sGam po pa described above. The second series is the klong de, or space series, where the approach is more direct, immediate and emphasizes non-conceptual space. The methods rely upon remaining within the meditative view through the use of sensation and other direct sensory experience. Particular postures, belts, and sticks are used as a support to create powerful sensory experience through which the practitioner can easily recognize directly the phenomenological unbounded openness of experience (Chogyam & Dechen, 2002). The third series is the mengak de, the secret precept series, which contains little instruction, just simple descriptions and methods on how to maintain the view.

The Bon A Khrid System of rDzogchen. Bon is the indigenous tradition of the Tibetan plateau that originated from an ancient empire, Zhang Zhung, that includes areas known today as Iran, Tajikistan Afghanistan, Tibet, Kashmir, Pakistan, and India (Reynolds, 2014; Brown, 2017). The founder of the tradition was a Buddha known as sTon pa gShen rab who predated the Indian Shakyamuni Buddha by many centuries. The Bon tradition is composed of both shamanic ritual practices for gaining benefit and prosperity in this life known as the causal Bon (rgyu’i bon), and those higher spiritual teachings of Tönpa Sherab, known as the fruitional Bon (‘bras bu’i bon) which consist of sutra, tantra and rdzogchen practices akin to those found in the Buddhist lineages originating from India (Reynolds, 2014; Brown, 2017).

There are four transmission lineages of rdzogchen within Bon; the Zhang-zhung snyan rgyud (Oral transmission from Zhang Zhung), the rDzog chen yang rtse klong chen (The Great Perfection from the Highest Peak of the Great Vast Expanse), the Ye khri mtha sel (Removing Limitations from the Primordial State) and the A Khrid (the Guiding Explanation for the Primordial State) (Reynolds, 2005).
The ninth lineage folder of the A Khrid system Bru rGyal ba g.Yung drung (1242-1290) condensed the system to a 15-session manual which became the most popular version of the A Khrid teachings. As an example of the rdzogchen tradition this exploration will focus on the A Khrid system from Bon rdzogchen. It provides a systemized approach that parallels and expands upon the mahamudra four-yoga model.

Brown & Gurung (2017) in their translation of the A Khrid pith instructions reveal how the commentary of the A Khrid divides practice into three main phases: bringing the unripened mind stream to ripening, bringing the ripened mind stream to liberation, and bringing the liberated mind-stream to the completion of Buddhahood.

In the practices of "ripening the unripened mind stream" the unripened mind is brought to ripening through four sessions of practice: Meditation on Impermanence, Setting the Intention and Taking Refuge, the Mandala Offering, and Guru Yoga (mentor bonding practice). These are explained more in Brown (2017) and Churchill (2018).

The practice of "Bringing the Ripened Mind-Stream to Liberation" the ripened mind is brought to liberation through six sessions. These sessions traverse the same psychological territory as the four yogas of mahamudra. Session five and six, Concentration With and Without Attributes, are devoted to calming the events of the mind and developing attentional stability. Through the seventh session, Bringing Forth the Benefit, the practitioner recognizes his or her basis of identity and psychological operation as being beyond the constructions of self, and time. Through the practice of mixing awareness into the visual perception of the outer open sky itself, and recognizing the perceptual non-duality between the awareness that is seeing the sky and the openness of the cloudless sky, one come’s to recognize the spacious field of lucid, intense, and brilliantly awake awareness that is always present in each moment. The eighth session, Pointing Out the Meaning of the Natural State, relies upon the practice of breath retention (vase breathing) and meditation on the central channel.

The ninth session, Getting Rid of the Stains Created by the Ordinary Mind, is devoted to the stabilization of awakened awareness, through: "Setting Up the View" (to repeatedly shift the basis of operation to awakened awareness more often and for longer periods of time); "Dismantling the Ordinary Mind" (the dismantling of the individual consciousness, akin to sGam po pa’s Non-Meditation); and "Automaticity: (awakened awareness is able to sustain itself automatically at all times and in all situations). This leads to the tenth session or stage Taking Stainless Primordial Wisdom as the Path, in which the meditator practices maintaining and integrating this basis of operation whilst engaging in systematically more difficult circumstances.

This tenth session (of the second, or liberation, phase of the A Khrid system) completes the process of liberation. At this point of development the meditator has developed the capacity to operate naturally from awakened awareness, the level of lucid, open non-dual awareness prior to the constructions of the information processing systems of perception, attention, temporal awareness, self-construct, emotion and cognition. Perhaps surprisingly to some readers, rDzogchen moves on from there.

The third phase of the A Khrid system moves from "liberation" to "Buddhahood" (i.e. "Bringing the liberated mind-stream to the completion of Buddhahood"). This third phase of
practice, also named, the *Practical Guide for Liberation, Reaching the End*, includes maintaining awakened awareness into deep sleep and dream yogas. According to the tradition (1) bringing awareness into the state of deep sleep is the transformation of the most ignorant substrate of consciousness, and parallels the capacity to maintain awareness throughout the dying process (Wangyal, 1998); and (2) the dream state is the most responsive state from which to transform the deep habitual karmic tendencies that have built up in the mind (Norbu & Katz, 1992; Wangyal, 2004). Though they are included in post the post-liberation (Buddhahood) phase of the A Khrid system, deep sleep and dream yogas are also practiced during the Liberation (second) phase to deepen the processes of dis-identification. The "fruition" processes ("dharmadhatu exhaustion ") introduced at this last phase is meant to cleans one of all past karmic imprints, to ultimately reach a stage of in which all negative mind states have been purified and all the positive qualities of mind have been developed (kindness, generosity, patience etc.). Though this tradition locates these purification processes after building the skills of liberation (the capacity to operate naturally from awakened awareness), other systems speak to the ongoing process of purification of conditioning (i.e. karma) that happens all along the path.

The final movements along this path include "Staying uninterruptedly in a state of one-pointedness (on the view of the inseparable pair of unbound space and awakened awareness) across the three gates of body, speech and mind, is concentrated evenness; conduct throughout the various activities and behavior is post-meditation" Druchen Gyalwa Yungdrung (Brown, 2017, p. 170); and "[not] even the slightest distinction between holding or not holding mindfulness, sleeping and waking, and being distracted or undistracted from the real nature of the mind" (Brown, 2017, p. 174).

This fruition manifests itself in realization of three dimensions: the realization of the "three enlightened bodies," the primordial wisdoms, and enlightened activity in the form of skillful means, great compassion/loving kindness, and omniscience. The three enlightened bodies, dharmakaya, samabhogakaya, and nirmanakaya, (kaya) can also be translated as three fields or dimensions of the enlightened mind (the unbounded, unborn, uncreated open ground of reality akin to the purification of deep sleep; the field of light in the form of brilliant, primordial, lucid, lively awareness akin to the purification of the dreaming mind; and as radiant self-arising-self-liberating liveliness akin to the purification of the waking mind).

Finally, we will mention the rDzogchen system of "Five Primordial Wisdoms" describing the workings of the fully purified mind (i.e. Buddhahood) (Thrangu, 2011). It is described in terms of how the purification and transformation of each major defilement leads to an enlightened wisdom capacity. This model is a useful psychological tool for any location along the path to liberation.

The transformation of anger and default consciousness produces mirror-like clarity. The transformation of hedonic tone (likes, dislikes, grasping, pride) leads to perfect equanimity. The transformation of mental formations (and preference) from a self-seeking manipulation of reality leads to compassion and a discriminatory awareness as to what is ultimately good for the interconnected field. The transformation of the perceptual system (and jealousy) lead to a purified executive functioning that automatically translates understanding into energetic right action.

Looking at the underlying architecture of the mahamudra and rdzogchen systems presented a common pattern emerges. In the process of contemplative psychological development it is
necessary to first recognize, and then stabilize, a basis of operation before it can integrate the relative activity of body, speech and mind into a non-dual realization. For instance, in the mahamudra the practitioner realizes the very subtle timeless mind, and once that view is established as the basis of operation then the relative activity of mind is allowed to arise within that timeless very subtle spacious field. The four yoga mahamudra tradition has a greater differentiation of levels of metacognitive operation prior to awakened awareness than the A Khrid system. As such the four-yoga mahamudra articulates the process of establishing a basis of operation and its non-dual function at the subtle (emptiness of phenomena/dreamer and dream), very subtle (one taste reverse Samadhi), and the awakened level of mind.

What can be seen in the mahamudra and rdzogchen is a process intrinsic to human development. There is an orientation to a whole field (subtle, very subtle, awakened) that leads to the recognition of a metacognitive basis of operation. That new basis of operation then orients to the perceptual and cognitive expressions within the whole phenomenological field whilst simultaneously recognizing objects as an integrated expression of that field. When integrated, the intention shifts to establishing the next whole field as a basis of psychological operation. Because the whole fields are nested contexts (the awakened level includes, the very subtle, the subtle, and the coarse) this allows for the A Khrid system to cut through to the awakened level and in the non-dual integration of liveliness all prior levels of development are subsumed.
Leadership Coaching Leads to Later Stage Development

Antoinette J Braks

Abstract: This paper explores a multiple case study based on the effects of a developmentally informed, transformative leadership-coaching methodology. After an average of eight 90-min coaching meetings over 12 months with a Synergist executive coach, 83% of the 12 strategic executive leaders in the case study shifted a full stage, mostly from Achievist to Catalyst; the other 17% shifted two stages from Achievist to Synergist. The paper presents the eight drivers emerging from a thematic analysis of >100 hours of coaching conversations (>100,000 words) that enabled universal later stage development. It draws on the STAGES model to explain the significance of transforming the organisational context and undertaking shadow work. The dynamics of development led to an emergent Vertical Development Theory.

Keywords: Executive coaching, leadership, Stageshift, Synergist, vertical development theory.

Introduction

This paper first explores what is known about later stage development in terms of the structure and pace of development, and the factors thought to stimulate later stage development. ‘Later stages’ are defined as the postconventional stages of development. The paper then articulates the coaching interventions or drivers of development that led to shifts from Achievist to Catalyst and onto Synergist distilled from the executive coaching case study. This is followed by an exploration of why and how these drivers were effective in relation to the dynamics of vertical development with reference to the STAGES model. The paper concludes with an emergent Vertical Development Theory, a set of implications for executive coaches and facilitators of advanced leadership development programs and makes a number of recommendations for future research.

1 Antoinette Braks helps strategic leaders transcend the turmoil, trust emergence and transform their world to become more inspiring visionary leaders. She is a master executive coach, strategic facilitator, leadership consultant, presenter and author who works with C-suite leaders, executive teams and whole organisations to realise amazingly swift transformative outcomes. Antoinette has undertaken more than 3,500 coaching hours with more than 250 strategic leaders explicitly intended to enable vertical development following a global career leading strategic business culture transformation and consulting in management assessment and leadership development. Her longstanding preoccupation with personal and organisational evolution prompted her PhD research to discover if executive coaching could expedite later stage development. This article presents some of her key findings. She is the author of Executive Coaching in Strategic Holistic Leadership: The Drivers and Dynamics in Vertical Development, McGraw-Hill, mid-2020. Based on completed PhD research. www.stageshift.coach Antoinette.Braks@Join-the-SHIFT.com
Table 1. Key for use of Stage Terms in this article (author’s perspective).

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<tbody>
<tr>
<td>O’Fallon (2011)</td>
<td>2.5 Conformist</td>
<td>3.0 Expert</td>
<td>3.5 Achiever</td>
<td>4.0 Pluralist</td>
<td>4.5 Strategist</td>
<td>5.0 Construct-Aware</td>
</tr>
<tr>
<td>Braks</td>
<td>Conformist</td>
<td>Specialist</td>
<td>Achieveист</td>
<td>Catalyst</td>
<td>Synergист</td>
<td>Constructivist</td>
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The stage terms chosen by the author were selected based on their corporate audience, and their “-ist”-ness. In particular, Synergist was chosen instead of Strategist as the word strategist has its own meaning in the corporate world. It denotes a person fluent in devising corporate strategy which is best categorised as an Achieveист-level capability. It also fails to incorporate the collaborative synergy that is a distinctive and valuable emergent capacity at this stage of development to enable more sustainable, empowering and equitable foundations to be built. Achieveист, a term originally used by Beck and Cowan (1996), was adopted for the same reasons. In the corporate world, a high performing Achiever is seen as the pinnacle of an executive’s leadership capacity. By altering the term to Achieveист, the stage development lens can be encountered and interpreted more objectively.

Factors Related to Later Stage Development

Later stages have been correlated with increased leadership effectiveness. Evidence indicates that executives at later stages with more complex meaning-making systems are more effective leaders (Eigel, 1998; Eigel & Kuhnert, 2005; Harris & Kuhnert, 2008; Strang & Kuhnert, 2009; Rooke & Torbert, 2005). A deeper appreciation of themselves, their interactions and strategic context, in other words intrapersonal, interpersonal, systems and cognitive skills and capabilities, help leaders to be more effective. Furthermore, the capacity to lead and sustain transformative organisation-wide change, emerges at Synergист (Rooke & Torbert, 1998).

The Pace of Later Stage Development

The two later stages of development with which this research study was primarily concerned are the first two postconventional stages of Catalyst and Synergист. While the proportion of the executive population at Catalyst has been increasing by 11% in each of the last two decades to rise to a total estimate of 33%, the proportion of Synergистs amongst the executive population – has stalled at 8% increasing by just 1% in each of the last two decades (Cook-Greuter, 1999; PwC Report, 2015). Half of senior leaders believe that their investment in leadership development does not build critical capabilities despite the $164b annual investment in leadership development in the United States alone (Beer et al, 2016; Moldoveanu & Narayandas, 2019). There appears to be a deficiency in current leadership development methodologies to enable vertical development to Synergист.
Torbert (personal communication, March 11, 2015) suggested that vertical development from Achievist to Synergist would take as many as six years with a Synergist coach. His view was inevitably based on an early study of MBA graduates, where Torbert & Fisher (1992) found that the six who participated in a reflective action inquiry group every 3 weeks over 5 years had shifted a full stage to Synergist in contrast to the other nine graduates who only developed their leadership capacity by 5% during that time. Rooke & Torbert (2005) further advised that, in addition to one individual making the shift from Specialist to Synergist over a period of three years, “[w]e have had only two other instances in which a leader has transformed [two stages] in less than four years” (p. 73).

Vincent (2015) undertook a more recent study of 335 adults with an average age of 40 who were undertaking a 12-month Community Leadership Program (CLP). She found that the enhanced 25+ day CLPs including psychosocially disequilibrating events, were more effective in triggering later stage vertical development than the standard CLPs. Of those who attended the enhanced CLPs, 29% (46/157) shifted from Achievist to Catalyst, and 23% (9/40) from Catalyst to Synergist. In total, 28% (55/197) shifted one stage to one of these two later stages after attending the one-year intensive and enhanced leadership program.

Brown (2014) suggests that executive leadership programs based on integral theory focused more explicitly on expediting vertical development to transpersonal stages, such as Pacific Integral’s Generating Transformative Change Program, are significantly more effective. “Typically, it takes five years for a leader to shift a full action logic, or developmental stage, if they shift at all. Leaders in these programs [MetalIntegral Assoc, Pacific Integral, JFK University] shifted as much as an entire stage or two in vertical learning programs lasting 1–2 years.” (Brown, 2014, p. 25) Pacific Integral programs involve four 5-day residential retreats over a period of nine months.
In summary, vertical development to the later stages of Catalyst and Synergist is probable for participants in a peer group, potentially inclusive of later stages, undertaking developmental action inquiry over a period of 5 years. Based on Vincent’s (2015) research, perhaps a quarter of participants could be expected to shift to later stages after attending a 25+ day 12-month comprehensive leadership program that includes psychosocially disorientating experiences (Manners & Durkin, 2000) yet is not explicitly designed to enable vertical development. However, all participants attending 20-day 9-month Pacific Integral programs which are explicitly designed to foster vertical development to indeed transpersonal stages, often shift one, and sometimes two, stages during this short time.

Factors Driving Later Stage Development

There are a number of factors that may contribute to enabling later stage vertical development. Torbert & Fisher’s (1992) study of MBA graduates described above, suggests that reflective action inquiry with peers is useful. Laloux (2014), famed for his work in organisational evolution, suggests that creating the opportunity for self-expression, revelation, feedback and reflection amidst diverse perspectives including later stage peers is conducive to later stage leadership development. Indeed, facilitators of the highly effective Pacific Integral Leadership Programs are renowned for their transpersonal perspective.

Another key factor included in Vincent’s (2015) study above, was the notion of disorientating dilemmas first espoused by Mezirow (2003) as having the power to invite transformative learning. Piaget (1954) suggested that disorientating dilemmas demanded an adaptation of the meaning-making frame to make sense of new perplexing information, signifying vertical learning beyond one’s current perspective. He called this an accommodation process. This was in contrast to new data that could be assimilated i.e. understood within one’s current frame of reference, suggesting horizontal learning within the person’s current stage of development (Kegan, 1982).

In their research study, Manners & Durkin (2000) found that having a personal disposition that was curious and open to attracting personally salient life experiences that were emotionally disorientating, was likely to generate stage development to Achievist. This was based on a brief research study where 76% (16/21) of adult participants advanced one stage from Specialist to Achievist following a 10-week group program of one 90-minute workshop per week. Vincent’s (2015) study suggests that 29% of participants might develop to later stages as a result of engineering this type of psychosocially challenging intervention.

Geoff Fitch, Founder of Pacific Integral, believes that the intimate collective holding space co-created during Integral Leadership Retreats is significant in liberating later stage development (Ch 4, Gunnlaugson & Brabant, 2016). Perhaps it is not the disorientating dilemmas or “heat experiences” (Petrie, 2015) themselves that enable later stage development, but the deeper inquiry into interpreting the experience of the participants. A transpersonal facilitator has the power to hold a psychologically safe, supportive and sacred space for this inquiry and the insight to invoke deeper meaning-making for the participants.

The exploration and integration of identity is thought to facilitate vertical development. Petriglieri et al. (2011) found that revisiting life stories and navigating existential puzzlement with
the support of individual psychotherapeutic counselling was both in high demand and highly valued by MBA students. Pfaffengerber (2011), on comparing the written narratives and interview transcripts concerning the growth process of 22 postconventional participants with those of a control group of six conventional participants, also found that interiority, alongside intentionality and complexity, was one of three key themes that distinguished later stages.

‘Interiority’ reflected taking a personal inquiry into one’s inner awareness. The second theme, intentionality, referred to the commitment to prioritise personal growth despite the discomfort and increasing sensitivity. Interiority and intentionality appear to be developmental drivers associated with shaping a coherent inner identity and the intentional resolution of challenging tensions and paradoxes at a deeper level. Quatro et al (2007) also advise that a person develops to later stages by integrating the analytical, conceptual, emotional and spiritual dimensions of their holistic self.

The exploration of identity is connected to shadow work. Kilburg (2004) described shadow as “unconscious material in the form of past experience, emotional responses, defensive reactions, underlying and unresolved conflicts, and dysfunctional patterns of thinking and behaving [that] can contribute to poor leadership and consequently to decreased organisational effectiveness” (p. 249). By bringing these elements into conscious awareness, a person can more easily adjust otherwise disruptive behaviours and alleviate significant distress and anxiety, leading to enhanced wellbeing (Kilburg, 2004). Shadow work is also thought to advance a person’s meaning-making patterns to realise later stage development (Kaiser & Kaplan, 2006).

Other ways of expanding meaning-making are: the integration of polarities (Sharma & Cook-Greuter, 2012); the resolution of tension between espoused and lived values (Rooke & Torbert, 2005); consciously working with an open mind, open heart and open will while suspending voices of judgement, cynicism and fear (Scharmer, 2007); mindfulness, meditation, contemplative and reflective practices that serve to deepen inner awareness.

A further aspect of vertical development is that a person can generally only develop up to the level of evolution supported by the organisation they are a part of. For instance, the competitive, high-performance structure and culture of an orange organisation would largely contain development to the associated stage of Achievist. Innovative organisational practices at later stages of development i.e. green and teal, suggest that the evolutionary level of the organisation is a highly influential factor in either prohibiting or encouraging later stage development (Hamel, 2007; Laloux, 2014). Kegan et al (2014) recommend prioritising deliberately developmental practices within organisations to stimulate vertical development.

In summary, vertical development can be accelerated by regular reflective action inquiry, especially with later stage peers, and by making deeper meaning of disorientating experiences at integral retreats with transpersonal facilitators. Intentionally taking a holistic view of all dimensions in one’s inner world, potentially with the help of a psychotherapist, can also lead to the development of a more integrated identity. Working with values, polarities and mindfulness in deliberately developmental, contemplative ways may stimulate later stage development, and working in conventional organisations is thought to inhibit development while engaging in green to teal organisations stimulates associated personal development to the equivalent evolutionary level.
Quantitative Findings in Later Stage Development

The Motives that Led to the Research

There were a number of interconnecting factors that led to the research project. I had been working as an executive coach for about three years. While most clients appeared to gain substantial value from the coaching, I wondered if I was actually making a real difference. Was my coaching genuinely effective as well as providing clients with a purposeful and valuable time to reflect, rewind and reframe? The outcomes of my work as an executive leader of People and Culture and business transformations, had been more explicit and tangible.

I had become aware of stage leadership development by undertaking a workshop with Susanne Cook-Greuter in 2010. I discovered that I was operating as a Synergist with 72% of sentence completions at post-conventional levels and 42% at Synergist and Alchemist. I also discovered that only a small proportion of executives operate as later stage leaders, particularly at Synergist when they become able to lead and sustain organisational transformations (Rooke & Torbert, 1998). At that time, only 10% of leaders operated from Catalyst and 5% at Synergist and beyond (Rooke & Torbert, 2005). I felt that the world was urgently in need of transformation to become more sustainable, healthy and equitable, and therefore in urgent need of more leaders operating from the Synergist perspective.

I enrolled in a PhD and three years later began my research project. I was involved as a management assessment consultant and executive coach in the Leadership Development Program for the 400 most senior executives in the New South Wales (NSW) public sector. Following an initial plenary assessment, debriefing and short coaching process, they were individually funded to undertake a psychological assessment followed by more coaching. I took the opportunity to launch my research study.

My research question morphed over time to become:

How might Executive Coaching with a Later Stage Executive Coach at Synergist enable vertical leadership development for strategic leaders predominantly at the conventional stage of Achievist to the less commonly held later postconventional stages of Catalyst and Synergist?

Setting up the Multiple Case Study Research

I invited 25 strategic leaders with divisional, functional or regional responsibilities in the NSW public sector to undertake the highly validated stage assessment instrument, Cook-Greuter’s Mature Adult Profile (MAP) (Cohn & Westenberg, 2004; Loevinger & Wessler, 1970). This requires a person to independently complete 36 sentence prompts. In this way they project their thoughts and ideas on a wide range of life and work concerns. Susanne Cook-Greuter herself kindly agreed to score the assessments.

Of the 25 strategic leaders invited to take the assessment, 12 scored with more than 80% of their profile up to and including Achievist. To focus the research on the shift from Achievist to later
stages, these 12 were invited to participate in the research study. Of the 12 invited, nine agreed. They formed an initial purposive sample of conventional strategic leaders. Three participants were added to the project later, one more from the public sector making a total of 10 (83%) and two from the financial services sector (17%).

The average age of the 12 participants was 50, ranging from 36 to 56. There were seven men and five women. They were all graduates, and six had postgraduate degrees including one doctorate. Their roles included Deputy/Assistant Secretary/Commissioner, C-suite, Head of Agency, Executive Director, Program and Operations Directors. They worked across the agriculture, education, environment, financial services, health, justice, premier’s office, rescue services, trade and industry, and transport sectors.

The proportion of their average aggregate stages profile up to and including Achievist at the beginning of the research project was 88%. Thus, their average aggregate later stage profile was just 12%. They committed to attending a 12-month coaching program. They also agreed to an explicit intention to realise later stage leadership development. They were not involved in any other organised leadership development activities.

The 90-min coaching meetings were set up for the same time and day each month over the ensuing 12-month period. The participants could reschedule meetings during and beyond the 12-month period at their discretion. During the year, they attended an average of eight (8.4) coaching sessions, ranging from five to 12 each. The three who attended fewer coaching meetings tended to meet bi-monthly instead.

My coaching preparation consisted of revising past coaching notes, meditating briefly to become centred, calm, caring and present, ensuring that there was water and mint tea ready, and setting intentions to co-create an insightful and valuable coaching dialogue for the coachee. All of the meetings took place in person in large corporate meeting rooms on the upper floors of centrally located buildings with panoramic views over Sydney parkland and harbour. A whiteboard stretched across a wall was used regularly to capture new ideas and explain emergent concepts to facilitate development and understanding.

My coaching approach was non-prescriptive and unstructured. I had undertaken little formal coaching qualifications at that time and simply drew on my experience, expertise and Synergist perspective of life and business to inquire, respond and generate an uplifting transformative dialogue on whatever was raised by the coachee. I also intervened purposefully if I encountered a blind spot in the coachee’s reflections or general chit-chat. In offering feedback, one coachee remarked:

I remember one day I began a coaching session by describing how irritated I had been by a hygienist cleaning my teeth. … I just wanted to vent and remove this experience from my state of mind. Little did I know that Antoinette would turn this into a teaching moment for me. She provided a life-changing reflection back to me – did I want to be reactive to situations? She told me that my reaction was as much about me as it was about her. Did I want to be an irritable or irritated person, or did I want to be a different type of person in the world? I did not believe it was possible to change my personality, and then I realised I could. I wasn’t that type of person; I could be whoever I wanted to be. I’ve never forgotten that moment.
Measured Outcomes Post the Coaching Program

After 12 months, nine of the participants undertook a second MAP assessment. These assessments were sent to Cook-Greuter anonymously without any identifying data for her second assessment. Of the additional three participants, one undertook a Global Leadership Profile (GLP) assessment and two others undertook a STAGES Profile assessment. These alternative stage assessments followed my studies with Bill Torbert, creator of the Global Leadership Profile, and Terri O’Fallon, creator of the STAGES Profile. The scoring systems of these three assessments have been shown to be highly correlated, particularly up to Synergist (O’Fallon et al, 2020; Torbert & Livne-Tarandach, 2009). By 2018 my stages assessment was at 5.5 (STAGES) with 100% of my profile at Synergist and beyond. The coaching programs with the three additional participants took place from 2016-2018.

It was found that ten (83%) of the participants had shifted a full stage, eight from Achievist to Catalyst. One participant shifted from Specialist to Achievist and one participant shifted from Catalyst to Synergist. The two remaining participants (17%) shifted two stages from Achievist through to Synergist.

Table 2. Pre- and Post-Coaching Stage Assessments.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Total Weighted Score (TWS)</th>
<th>Total Protocol Rating Primary Stage</th>
<th>% Profile at Postconventional</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-</td>
<td>Post-</td>
<td>Change</td>
</tr>
<tr>
<td>A</td>
<td>242</td>
<td>278</td>
<td>+36</td>
</tr>
<tr>
<td>B</td>
<td>244</td>
<td>265</td>
<td>+21</td>
</tr>
<tr>
<td>C</td>
<td>245</td>
<td>293</td>
<td>+48</td>
</tr>
<tr>
<td>D</td>
<td>232</td>
<td>266</td>
<td>+34</td>
</tr>
<tr>
<td>E</td>
<td>233</td>
<td>260</td>
<td>+27</td>
</tr>
<tr>
<td>F</td>
<td>212</td>
<td>241</td>
<td>+29</td>
</tr>
<tr>
<td>G</td>
<td>242</td>
<td>265</td>
<td>+23</td>
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<tr>
<td>H</td>
<td>247</td>
<td>261</td>
<td>+14</td>
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<tr>
<td>I</td>
<td>244</td>
<td>271</td>
<td>+27</td>
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<tr>
<td>J</td>
<td>231</td>
<td>261</td>
<td>+30</td>
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<tr>
<td>K</td>
<td>244</td>
<td>266</td>
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</tr>
<tr>
<td>L</td>
<td>265</td>
<td>298</td>
<td>+33</td>
</tr>
<tr>
<td>MEAN</td>
<td>240</td>
<td>269</td>
<td>+29</td>
</tr>
</tbody>
</table>

The mean of the difference in the before and after scores was 28.7, approximately the ambit of a full stage. The difference in the before and after scores ranged from 14 to 48 points. There were no outliers (Tukey Fence). The standard deviation of the difference was 8.7. A matched sample
paired t-test showed that there was a highly significant statistical difference between the before and after Total Weighted Scores (TWSs). The $R^2$ of this shift was 0.519 with a single tail p-value of 0.00001 at a 95% confidence interval.

In summary, all participants shifted a full stage (100%). Two navigated a double shift from Achievist to Synergist (17%). These are significant findings from a practical perspective. An average of eight 90-minute coaching sessions or 12 hours (2-days) of executive coaching spread across a year with a later stage executive coach at Synergist, accomplished the degree of stage shift that had otherwise only been known to have taken place following 20-day intensive group Integral Leadership Programs.

Three of the first group of participants agreed to undertake a third GLP assessment three years later. They were all assessed at Synergist. They increased their average aggregate later stage profile by 72% from 16% in Year 0, to 65% in Year 1 and onto 88% in Year 4. This indicated that the earlier results achieved were sustainable and that the coaching could activate the integration from Catalyst to Synergist.

The Hedges g score showed that the number of coaching sessions undertaken by the participants during the research project, had no significant effect on the scope of the shift in each participant’s profile. Some coaching sessions were also taken prior to the research project, and those that undertook the third assessment had continued with an average of six coaching sessions following the project. The Hedges g score showed that the total number of coaching sessions undertaken had no significant effect on the results. The average number of coaching sessions undertaken by those who shifted two stages in one year from Achievist to Synergist was eight.

**The Structural Nature of the Stage Shift**

The structural nature of the average aggregate profile shift was curious. It was calculated based on the average percentage of sentence completions at each stage of development. In the initial shift predominantly from Achievist to Catalyst, the proportion of sentence completions at Achievist remained relatively stable, while the neighbouring stages increased and decreased around this centre of gravity. It was curious because I had anticipated more of an incremental increase across all developing stages and a similar decrease across all earlier stages. I wondered if this might point to a new insight, at least for me as an experienced practitioner, in the nature of vertical development. To explore this further, notwithstanding the tiny sample size for this type of analysis, I looked at the data only for those shifting from Achievist to Catalyst, and the data only for those who had shifted onto Synergist.
In the shift to Catalyst (n=8), the proportion of sentence completions at the previous slight leading edge of Catalyst increased significantly from 8% to 33% (+25%) to become their primary stage. The previous primary stage of Achievist stayed largely stable (-4%) and defaulted to secondary due to the growth in their leading edge at Catalyst. Simultaneously, the previous secondary stage and trailing edge declined substantially (-27%), leaving their previous secondary stage at Specialist as their new trailing edge. They had a new leading edge at Synergist (+6%).

Similarly, in the shift onto Synergist (n=4), the new primary stage of Catalyst remained relatively stable increasing by only 3%. The percentage of sentence completions at their leading edge of Synergist flourished by 28% while their profile at Achievist diminished by 25% to become their new trailing edge. The profile changes surrounded, rather than affected, their previous new primary stage at Catalyst.

These indicative findings on the structure of stage development suggest that cultivating the next person perspective at their leading edge while eliminating or reducing their regression to earlier stages by undertaking shadow resolution work related to them, is the key to later stage vertical development. The current integrated stage of development is sustained during the process of vertical growth until the next integrated stage of development has been experimented with,
understood and become embodied. This way a person can continue to rely on their primary way of making sense of their world while actively nurturing vertical development. It appears that it is not until both steps in the individuation/integration process (Cook-Greuter, 1999) are completed and the person has matured into a new integrated stage of development, that the previous primary stage of integration is released.

This supports O’Fallon’s (2011) revelations of the structure of stage development in the Inner and Outer Zones. During the x.0 individuation stage of development in one’s inner world, the previous (x-1).5 stage in the outer world continues to prevail. The findings add credence to my observations from my coaching experience in vertical development to Synergist, that a person only arrives at this stage once they can confidently express and demonstrate their personal transformation by leading transformation of their organisation.

This insight perhaps partly explains the fact that while executive leaders have been increasing to the stage of Catalyst by 11% in each of the last two decades, the transformation to Synergist has stalled (PwC, 2015). These postconventional executive leaders would appear to still have their centre of gravity, albeit their secondary stage, at Achievist. It seems that unless developmental interventions deliberately encourage active experimentation in the outer zone of integration at Synergist while intentionally releasing the hold of the Achievist and earlier stages through shadow work, vertical development to Synergist cannot ensue.

Summary of Quantitative Research Findings in Later Stage Development

1. The motives for the research project were to explore my effectiveness as a coach and the potential for executive coaching with a later stage executive coach to expedite later stage vertical development to Catalyst and Synergist.

2. Twelve strategic leaders with substantial divisional responsibilities, seven men and five women with an average age of 50, half graduate and half postgraduates, participated in the research. They started out with 88% of their average aggregate profile up to and including Achievist.

3. They undertook an average of 8.4 (range of 5-12) 90-min (12.6 hours) face-to-face one-to-one coaching sessions with a Synergist coach, monthly or bi-monthly over the course of a year.

4. Ten (83%) of the participants shifted a single stage, eight from Achievist to Catalyst; one from Specialist to Achievist and one from Catalyst to Synergist. Two (17%) shifted two stages from Achievist to Synergist.

5. The mean of the difference in the before and after TWSs was 28.7 (range of 14-48) and the standard deviation of the difference was 8.7.

6. A paired t-test showed that there was a highly significant statistical difference between the before and after TWSs. The R² of the shift was 0.519 with a single tail p-value of 0.00001 at a 95% CI.
7. Three of the participants undertook a third stage assessment three years after the second and were all assessed at Synergist. They increased their average aggregate later stage profile by 72% from 16% in year 0 to 65% in year 1 and onto 88% in year 4.

8. In the transition to the next stage, the primary stage remained stable. The leading edge grew to become their primary stage and their secondary stage and trailing edges dropped away.

9. The research findings suggest that a person’s Centre of Gravity is better understood as being in their latest integrated stage, primary or secondary, rather than in their primary stage if it is in an individuation stage.

The Drivers Leading to Later Stage Development

The Matrix of 8 Key Coaching Interventions

The coaching conversation notes from the first nine participants comprised >75,000 words. They were compiled into one large word document. First, they were analysed using Leximancer’s online content analysis tool. Two overarching themes emerged: People and Strategic, together with eight other topics. These were crystallised into categories and the conversations within the transcripts were coded accordingly. The coded conversations were then captured in a large excel spreadsheet by category (row) and coachee (column).

After many recurring cycles of reflection and analysis on the substance and nature of the data over a period of two to three years using inductive thematic analysis (Boyatzis, 1998), it was found that the two key themes held: Strategic and Holistic Leadership Development. Strategic coaching conversations related to the coachees’ roles as organisational business leaders. They focused on the Collective. Holistic coaching conversations concerned them more intimately as individual people navigating life, both at work and at home. They focused on the Self.

After further consideration and following study of the STAGES model (O’Fallon, 2011), I realised that some of the subcategories related to inner work such as exploring identity, developing self-awareness, diving deep to understand and resolve shadow, and articulating aspirational intent and strategic direction. This type of work seemed to be more closely associated with the Inner Zone work at the Reciprocal stage of Catalyst, potentially also reaching towards the aspirational intent of Constructivist. The other subcategories were concerned with active application, engagement with others and the implementation of what had been learnt, reminding me of the Outer Zone work at the Interpenetration stage of Synergist.

As a result of this iterative process of reflection, sorting, analysing and resorting, eight different coaching interventions were identified. These eight drivers formed a matrix. Four drivers were Strategic, and four Holistic. Four related to inner work and four to outer work with others.

It was also found that the drivers were introduced in a similar order across all the case studies. As time went on, the coaching became more personally and interpersonally challenging, as well as more expansive in terms of proactively engaging larger groups of people beyond their immediate role. Here is the StageSHIFT Matrix of Later Stage Vertical Development showing the order from...
1 to 8 that enabled the participants to integrate the 4th person perspective from Achievist to Catalyst and onto Synergist.

Figure 4. The StageSHIFT Drivers of Later Stage Development.

**Driver 1: Set Inspiring Evolutionary Personal Aspirations**

Coaching programs often begin with setting developmental goals. My preference was to set personal leadership aspirations in the form of a declaration. Each coachee articulated the type of leader they would like to become and completed their statement with their highest intrinsic purpose. This took time to develop and refine, and invariably involved developing the coachee’s self-awareness of their unique strengths, passions, potential, purpose and personal aspirations. This is similar to the first step in the Boyatzis (2008) Intentional Change Theory although I would add that a later stage Synergist/Constructivist perspective tends to uplift coachees’ aspirations.

The rationale was to attract the very experiences that would both challenge and bestow the person with the opportunities to realise their highest potential – that was my intrinsic purpose. By setting a strong guiding affirmation, I believed that the power of the mind, heart and spirit would set up the opportunities and obstacles in life’s pathway to fulfil this declared intention. This was based on the writings of philosophers such as the following quote by Indian sage Patanjali, and to some extent, reflected in my own life experience.

When you are inspired by some great purpose, some extraordinary project, all your thoughts break their bonds; your mind transcends limitations; your consciousness expands in every direction; and you find yourself in a great new and wonderful world. Dormant forces, faculties and talents become alive and you discover yourself to be a greater person by far than you ever dreamed yourself to be.
Driver 2: Sustain a Positive, Kind, Open and Compassionate Mind

A key element that arose repeatedly across all the case studies was the common criticism and judgement of others. Calling other people “idiots” and “useless”, or otherwise venting about their annoying qualities is prevalent amongst people at the stages of the defensive Specialist and competitive Achievist. In integral speak, this element was about ‘showing up’ in a positive, kind and balanced state to minimise and indeed eliminate any negative ripple effect on other people.

This Driver incorporated positive psychology (Seligman, 2011), the use of only positive language, deletion of negative thoughts, heart-based reflective practices, mindful reprogramming and the development of a growth mindset and new wellbeing habits such as meditation and journaling. The Interpenetrative nature of the Synergist in the STAGES Model also fuelled this driver. By taking on board that all vengeful criticism was really transference, the coachees learned to lift their level of conscious self-awareness on an everyday basis.

One of the coachees shared their experience of this driver as follows:

I was always intolerant of fools and cranky, idiotic people behaving badly ... Realising that whatever happens in their life, they are trying to do the best they can - maybe a bit more understanding from me rather than creating relationship issues with them would be better ... Huge shift ... Biggest shift of all!

Driver 3: Engage Everyone in Setting Shared Purposeful Strategic Direction

This was the first strategic driver focused on generating transformative leadership by each coachee of their division as a Collective. The timing was perfect to set strategic direction for the years ahead as the coaching programs began at the beginning of the financial year. The nature and structure of setting strategic direction involved many empowering models and liberating frameworks I had used effectively as an Organisation Development consultant. They had lifted people engagement by 30% in six months and had the power to lift an organisation to green.

This driver included working with each coachee on setting a purpose, vision, set of values, strategic outcomes, annual themes, strategic shifts in culture and performance, and key strategic initiatives to set up a second operating networked system as recommended by Kotter (2014) to accelerate business evolution and innovation. The coachees were also coached on how to effectively engage and empower their people in the process of generating and agreeing to a Strategic Business Charter and cascading this throughout their division.

Eleven of the 12 coachees implemented this driver and many found the process highly engaging and rewarding. They were proud of their final A3 masterpieces setting out the ‘big picture’ and were recognised by their managers and government Ministers for their transformative views of the future. It is interesting to note that the two coachees who did the most work co-creating, implementing and continuously engaging their people on the Strategic Charter, moved most rapidly to Synergist. This driver was highly empowering for their teams who could then be held accountable for achieving the goals freeing the coachees to be more strategic leaders. A coachee explained:
[My purpose is] to set higher order strategic outcomes . . . and advance a strategic, scientifically based perspective along with effective and accountable probing governance with greater integrity . . . in such a way that everyone feels engaged, identifying with and owning a longer term strategic vision so that the return on the investment for the Australian public and industry sponsors generates tangible, breakthrough solutions that create a healthier environment for life and future generations.

**Driver 4: Distribute Time to Generate a Dynamic Flow**

This driver operationalised Driver 3. A Dynamic Operating Rhythm was created during coaching meetings to reduce time pressures, long hours and stress levels. Rather than managing time, the focus was on optimising energy levels and brain wave activity and distributing time to allocate the flow of the important streams of work that a strategic leader was responsible for e.g. strategic direction, oversight of key initiatives, stakeholder engagement, people and culture, and overall governance in relation to the effectiveness of the business model.

It included an iterative cycle of meetings for their teams, direct reports, projects and stakeholders, and liberating meeting agendas to enable full engagement, embed accountability and encourage collaboration. The weeks of the month, days of the week and the hours of the day were orchestrated 18-months ahead to optimise strategic performance and governance, and individual productivity, creativity and wellbeing in accordance with a person’s natural ultradian rhythm and brain processing agility.

This driver confronted many typical organisational norms. One of the most pervasive was the ever-changing meeting schedules of senior executives. The Dynamic Operating Rhythm regulated this and ensured attention was given to their own strategic priorities and people first and foremost, while freeing them to then engage more strategically externally. It conserved their conscious energy otherwise depleted by navigating a changing schedule day-by-day and enabled the coachees to move into a more emergent flow state.

Coachees were able to shift from being reactive to proactive, from the detail to the engagement:

Setup time on Monday is proving to be very valuable . . . Feeling of being more effective and more productive. … I now have time to synthesise; what’s my position going to be in the next meeting? … Really present, not absent. Articulating point of view on Exec Team. Now paying attention to the human dynamics, interesting drama playing out in front of me.

**Driver 5: Explore Psychodynamics to Heal Shadow & Eliminate Triggers**

This is the first of the second set of holistic drivers focused on deepening self-awareness and resolving shadow (Kilburg, 2004). Emotional triggers were seen as a signalling system for healing. Rather than focus on self-regulation in terms of emotional intelligence (Goleman, 1995), the emotion that was being triggered was sourced back to the original similar psychodynamic situation as a child and dealt with there. This transformative approach tunes into spiritual intelligence.
The coach had learned that by inquiring into her own emotional triggers and traumas, navigating a cognitive process to understand the psychodynamics and a heart-based process to forgive all involved in the situation while embracing the inner child, enabled situations to be healed at source. This process eliminated both the reoccurrence of similar psychodynamics and the voices in the mind that were associated with the trauma or drama in the past. In the coach’s experience, when this ‘GRIEF’ process was applied to all emotionally charged events, regrets, resentments, prejudices and grievances were released, one’s identity became integrated and the mind emptied to become calm and clear. This shadow resolution process released mindsets associated with earlier stages.

The underlying principle that supported this approach was again the concept of Interpenetration in the STAGES Model (O’Fallon, 2011). In my words albeit not necessarily original expression: Life doesn’t just happen to us, it happens through us, as us. The self and life are interpenetrative. The healing of egoic wounds from the past also resonated with the shadow crash orientation of the STAGES Model. These wounds inhibited a more robust construction of character at earlier stages. If triggered, a person generally reacts or suppresses the emotional charge. Either avenue is unproductive. However, if the shadow crash is illuminated and resolved, character foundations can be rebuilt in a more stable fashion to support ongoing later stage development.

“How can I be substantial if I do not cast a shadow? I must have a dark side if I am to be whole.” (Jung, 1931)

Driver 6: Sustain Standards with Courageous Caring Conversations

This final holistic coaching intervention involved demonstrating courageous and authentic integrity in a gracious, compassionate way. This coaching driver was the most common across all case studies. All coachees felt intimidated, threatened and/or distressed due to corporate politics or others’ abusive behaviour during the 12-month coaching program. The fear of speaking out in the face of powerful authority figures and employment risk, is associated with the reptilian amygdala response of fight, flight or freeze, and the emotional limbic brain.

Coaching sessions were an ideal opportunity to gain perspective and discern the standards, boundaries and priorities that were potentially out of synch in relation to the mutually respectful collaborative power that is demonstrated at Synergist. The coach invited and helped coachees to script an appropriate TIP – Truth-Implications-Point - conversation that could then be held in the workplace to address difficult situations.

The capacity to express oneself truthfully, openly and assertively with vulnerability and grace, while holding the other person’s self-esteem and feelings in mind, rather than simply having the conversation, is relatively rare. To be able to do so in the moment that it is called for, is even rarer still. Holding these types of conversations left a lasting impression on many of the coachees. One said:

The things that I've been working on, me tuning into me, has really allowed me not to baulk at these situations. I can have an open conversation with any one of my team members, team members have been in tears because they are learning things that are fundamental to who they are, gaining
in self-awareness ... It allows me to help others become more authentic, authenticity breeds authenticity ... Me growing is causing or generating their growth! because I'm empowering the team to grow.

**Driver 7: Articulate an Inspiring Unique Living Signature Presentation**

This is the third strategic driver. It arose in response to the many demands on the coachees to make presentations at Conference events, special gatherings such as farewells, important family events, invitations from Universities to honour graduates or to mark a new strategic direction for their industry sponsors and community interest groups. Rather than be descriptive or playing it safe, the coachees were invited to create an authentic, transformative, inspiring and compelling signature presentation for their audience.

It was ‘unique and living’ in that the coachee was the centre of their presentation. It concerned their purpose, their passion and their aspirations. It was intended to be continuously enhanced with every presentation opportunity so that it could evolve and develop new momentum and influence with each outing. The driver evolved to incorporate 12 P’s which became the focus for open questions during coaching sessions to provide the coachee with the opportunity to share their greatest aspirations and deepest sense of what mattered most to them in a very human yet strategic way.

I believe this driver leans into Constructivist leadership capacity of the fifth person perspective. It was exciting to see new presentation opportunities arise as coachees developed and built on their signature presentations. The expression of one’s authentic voice in a courageous, committed and convincing manner with eloquence and presence is an outstanding hallmark of a leader at Synergist. Coachees were enthralled:

Speaking can be a bit of a struggle, 35 on Friday, 150 next week. ... Once in the groove, speaking from the heart ... Very passionate ... So exciting ... Envisaging what is going to be happening in 10 years’ time today. ... I’ve been advised that I was the top speaker at the conference.

**Driver 8: Collaborate Widely with Stakeholders to Generate Synergy**

The final driver was focused on proactive engagement first with internal stakeholders and then with external stakeholders taking a complex adaptive systems interventionist approach (Cavanagh, 2013). The coachees who had responsibility for resolving conflict and collaborating with a variety of external stakeholders or had accountability for new business development, valued discovering how to gain in influence, market presence and proactively win the engagement and support of others in their communities and industry.

This driver involved stakeholder relationship mapping and taking a strategic approach to building relationships with others individually and in groups in a purposeful campaign-like manner. Synergists are able to hold the space for diverse, disconnected, conflicting stakeholders to release their anxieties and trust in the process of dialogue to realise mutually beneficial outcomes. This
type of interaction had the potential to lead to integration. Coachees enjoyed the results that flowed from building flourishing partnerships and co-creating transformative outcomes.

My approach is successful, meeting every timeframe to the day. Tear down the transactional framework, get away from the contract to the relationship, it’s unheard of to hit deadlines like this as consistently as this. Met every single deliverable on time every time, 15 June for X, 17 August for Y, and with really strong partnership relationships with suppliers and stakeholders ... Our key supplier relationship has evolved into a real partnership.

Summary of the Drivers Leading to Later Stage Development

1. There are eight key drivers of later stage development. They are:
   i. Setting inspiring evolutionary personal aspirations
   ii. Sustaining a positive, kind, open and compassionate mind
   iii. Engaging everyone in setting shared purposeful strategic direction
   iv. Distributing time to generate an orchestrated yet organic flow
   v. Exploring psychodynamics to heal shadow and eliminate triggers
   vi. Sustaining standards with courageous caring conversations
   vii. Articulating an inspiring unique living signature presentation
   viii. Collaborating widely with stakeholders to generate synergy

2. They form a matrix of which four (3, 4, 7, 8) are related to strategic business development and four (1, 2, 5, 6) to personal holistic development.

3. Two within each set of four drivers are related to inner awareness and aspirational intent (odd numbers: individuation), and two to application, engagement and implementation (even numbers: integration).

4. The coaching included explicit mentoring in vertical organisational development to transcend the amber and orange conventional norms and generate new empowering and collaborative norms.

5. Holistic stage development combined realising and embodying one’s higher aspirational self while releasing embedded shadow and reactive patterns that otherwise stall one’s vertical development.

The Dynamics of Later Stage Development

The Blend of Strategic Holistic Executive Coaching

An executive leader tends to feel constrained by their list of role responsibilities, their levels of delegation, their accountability for budgets and deadlines, and their need to comply with the conventional norms that prevail in amber and orange hierarchical organisations. By reshaping the strategic context and operating system for their organisation in empowering uplifting ways, each participant was challenged to step up in vertical development.
While the coaching was in response to the coachees’ need to create a strategic plan, the coaching response was of an evolutionary order of later stage vertical development. The new strategic context broke through Specialist and Achievist paradigms of excellence and performance, to create a new 4th-person-perspective playing field where higher aspirations, authentic engagement, radical accountability and emergent collaboration were integrated into the strategic planning, team engagement and performance governance processes and practices.

In terms of the holistic coaching, the value of setting aspirational intent beyond developmental goals to cultivate the person’s evolution even beyond their leading edge seemed to stimulate their later stage evolution. The deeper and more intimate focus on resolving and healing shadow to release negative and punitive mindsets that related to earlier life events when at earlier stages, went well beyond the more standard coaching approaches of self-regulation and the development of emotional intelligence. In combination, setting aspirations, cultivating self and resolving shadow expedited later stage development.

This concept of vertical stage development was depicted to the coachees as a Spectrum Stage Shift in their operating system from a Centre of Gravity at Achievist to a Centre of Gravity at Synergist. The Figure-8s, illustrated in figure 5, present both the overlap and quantum shift in the spectrum of stages a person with a mature person perspective profiles with at these stages. While anchored at Achievist, they could still develop Catalyst leadership agility as their primary stage, but it takes a greater quantum shift to fully transform to a 4th person perspective at Synergist.

![Figure 5. The Spectrum Stage Shift from Achievist to Synergist.](image)

**Coaching in Awareness and Mentoring in Application**

A key dynamic in the coaching conversations was the intention given to both raising self-awareness as well as learning to actively express oneself and engage others from a Synergist 4th person perspective. Qualities such as wisdom and compassion, embracing all people despite their

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2 The Figure-8 Operating System concept is further enhanced by a correlation with human faculties and the energy fields of a person’s life experience in the author’s book, Executive Coaching in Strategic Holistic Leadership (2020) McGraw Hill.
idiosyncrasies and inability to meet all performance goals, thinking through second and third feedback loops in relation to generating new ways of approaching situations, and ultimately thinking synergistically and focusing on the people over and above immediate performance outcomes, trusting that these would ensue, were all embedded in the coaching conversations.

The coach’s mentoring in empowering Organisational Development methods that the coachees were aware had worked very effectively for the coach earlier in her career, significantly reduced the career risk a senior leader tends to associate with experimentation. The success and increased confidence they enjoyed following the implementation of proven practical engagement processes, encouraged further experimentation.

The executive coaching morphed into mentoring in organisational development that was vertically informed. The instructive mentoring nature of the executive coaching is not typical of developmental coaching which is characterised by the art and science of asking clean open questions. Indeed, the executive coaching in drivers 3 and 4 went well beyond the person to focus almost exclusively on re-engineering the organisational context. This suggests that expediting later stage development to Synergist demands a coaching and mentoring approach with a view to uplifting the leader’s collective context. One coachee said in hindsight:

*Antoinette guided me in a strategic sense and gave good advice yet didn’t tell me how to do my job. I involved everyone, listened to everybody and people felt that they were important, and their contribution was valued. I tried to do the things a Synergist would do and be seen to do.*

**Transformative Coaching with a Later Stage Executive Coach**

While performance coaching is highly process-centric focused on achieving specific goals e.g. the GROW process (Whitmore, 2009), and developmental coaching is highly person-centric (Rogers, 1961) and focused on the art of asking open questions, transformative coaching is a term used to reflect the latest thinking in transformational coaching and 3rd generation coaching (Stelter, 2014). It is a more collaborative process that invites both the coach and coachee to reflect and offer insights on situations and challenges the coachee is occupied with.

The transformative coaching approach provides a later stage executive coach with much greater discretion to share deeper and more expansive meaning-making frames and insights to interpret events, reconstruct narrative and integrate identity. Given the level of guidance that can be offered graciously in this way to expedite vertical development, it suggests that transformative coaching may also have played a significant role in expediting the shift from Achievist to Synergist. Further exploration of the coaching approach is beyond the scope of this paper.

**Generating Trust & Confidence by Holding Psychologically Safe Space**

The interplay of the four drivers in holistic leadership development reminded me of ‘waking up, showing up, cleaning up and growing up’. Together, imagined as four concentric propellers, they created safe, secure, supportive and sacred emergent space around the self and inclusive of others. This is precisely what the Google Aristotle research project discovered about its highest performing
teams. The key factor that distinguished them from the rest was their sense of psychological safety (Delizonna, 2017).

Setting an Aspirational Leadership Brand Declaration was cognisant of ‘waking up’ to one’s aspirational self. Exercising positive kindness and demonstrating mindfulness was a way of ‘showing up’ consistently as one’s best self. Resolving emotional triggers and personal shadow issues was a way of ‘cleaning up’ one’s past. And holding high standards, clear boundaries and strategic priorities with Caring Courageous Conversations (CCC) exemplified ‘growing up’. By living the four holistic drivers, the coachees generated the psychologically safe, supportive and sacred space to liberate the human potential of others to develop vertically and together generate strong performance outcomes. Thus, the interplay of the four factors had a much greater effect than the sum of the parts.

The space that was effectively held by the emerging 4th person leader in the outer zone of the collective synthesises the manifestation of the Synergist. This is extended to the broader organisation and wider community of stakeholder interests through the strategic drivers bringing people together to set evolutionary direction and work together in empowering and heartfelt ways (Drivers 5 and 6) with an aspirational unique living signature presentation (Driver 7) to encourage listening, learning, discovery, healing and collaboration (Driver 8).

The Emergent Three Principles that Underpin Vertical Development Theory

On revisiting Boyatzis’s (2008) Intentional Change Theory and, in particular, its focus on the Ideal Self, the Dynamic Dialogical Model set out by Cavanagh (2013) and the importance of psychologically safe space as set out above, a new Vertical Development Theory emerged. It sets out the three distinctive audiences: the self, the organisation and the wider community, the drivers of development extended to number 9, the 6 active ingredients that enlivened the operating frameworks, and the shared sacred space of mutual inquiry and meaning-making between coach and coachee, were interconnected by three prevailing principles:

INTENTION Purposeful evolutionary aspirational intent for self, organisation and community;

INTERACTION Proactive open respectful orchestrated engagement as a consistent priority with internal and external stakeholders in the spirit of appreciative inquiry; and

INTEGRATION A process of engagement that invited listening, liberated voices and caring courageous collaborative conversations, enabled healing and integration within self and with others.

The concerted attention given to these audiences to courageously collaborate on aspirational endeavours and purposeful initiatives, was held by a sacred space of mutual inquiry, trust and transcendent meaning making led by the perspective and presence of a later stage executive coach. They combine to expedite and extend vertical transformation, as shown in Figure 5 picturing the emergent Vertical Development Theory.
Implications and Research Recommendations

Implications of the Research Study

The paper concludes with a set of implications for executive coaches and facilitators of advanced leadership development programs with a view to utilising the research findings to expedite the shift of many more strategic leaders to the stage of Synergist.

The active experimentation, demonstration and consolidation of Synergist leadership capacity happens in the workplace. The shift in consciousness takes place in the Outer Zones in the Collective (O’Fallon, 2011) and therefore is a matter of experimentation and implementation in the workplace itself. Designers of advanced strategic leadership programs often held offsite over intensive periods of time, should therefore consider extending their programs to include transformative coaching with later stage executive coaches to support their evolution.

Secondly, transformative executive coaching with a later stage executive coach is able to expedite the quantum shift from Achievist to Synergist in ways that developmental coaching cannot. Without the transformative insights and illuminating leading questions posed from a mature Synergist 4th person perspective or beyond, the coachee is not able to receive the gracious guidance of wisdom gained from a person who has already navigated the equivalent developmental pathway, ideally also in a corporate environment.

There is some argument in the coaching literature as to the comparative advantages of having a corporate business background or a background in psychology in relation to coaching effectiveness. It would seem that to expedite the shift to Synergist, a combination of the two is...
most useful. A mentor with proven knowhow in organisational evolution to green and teal would also support the shift to Synergist provided the holistic leadership development was also taking place with the guidance of a coach with an understanding of shadow integration.

The effectiveness of executive coaching and leadership programs can be objectively measured in terms of vertical development. Coachee perceptions and 360 assessments are mostly associated with horizontal learning capabilities up to Catalyst. If strategic leaders are to evolve to a level where they can transcend and transform conventional paradigms, it is essential to measure coaching effectiveness in terms of vertical development.

The emergence of Vertical Development Theory offers new insights into how a strategic leader might effectively and even expeditiously navigate their journey to a 4th person perspective. This theory can inform advanced leadership development programs of the power of purposeful, evolutionary and aspirational intention; open, respectful and orchestrated interaction; and caring, courageous and collaborative integration to enable evolution.

Future Research Recommendations

While coaching techniques or interventions have not been found to be highly influential in coaching effectiveness previously (De Haan et al, 2013), this case study suggests that a particular spread (strategic and holistic) and range (awareness and application) of coaching interventions with a later stage coach were critical to expedite later stage shifts to Catalyst and Synergist. More research into the type of coaching interventions and the self of the coach as the primary instrument of development, could prove to be very valuable.

It is time to relinquish executive coaching as a one-size-fits-all approach and begin to explore more closely the types of executive coaching, performance, developmental and transformative, and the coaching techniques and approaches that are most useful in relation to the transformations in vertical development. It would be very useful to research how different types of executive coaching impact the transformations in vertical development and the evolution of organisational culture (Athanasopoulou & Dopson, 2018). They may well be inextricably connected.

Further exploration of Vertical Development Theory and its application to executive coaching could enable advanced leadership development programs to be more effective in ushering in more visionary, inspiring, transformative, aspirational leadership in organizations and indeed, in national and international political systems.

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Finding Truth Within: Exploring the Importance of Reflective Practice in Deepening Self-Knowledge

Jason P. Miller¹

Executive Summary

Background Information (Organizational Context)

Healthcare as an industry is undergoing significant and rapid change with a paradigmatic shift from sick-care to preventive care for well-being (Goozner, 2019). This industry shift is demanding a new skill-set from healthcare leaders that is marked by the need to drive transformative change in the face of unprecedented uncertainty, ambiguity, and complexity. A meta-competency that is critical for success in this context that we are building in our leadership development efforts is emotional intelligence (EQ).

Statement of the Problem

Healthcare leaders are much more tuned to be successful in the old paradigm of healthcare than the new one. As healthcare transforms, leaders also need to transform the way they lead. The new leadership profile for success is characterized by a leader who is able to operate as an interdependent, learning-oriented driver of transformative change. To get there, healthcare leaders need to have the ability to self-reflect to gain deeper self-knowledge for purposes of accelerated development.

Guiding Questions

− How does the application of more consistent reflective practice affect the levels of an individual’s self-knowledge?
− What are some of the barriers to engaging in reflective practice?
− What are the potential predictive indicators of the extent someone will engage in reflective practice?
− What are the opportunities to enhance reflective practices leveraging mindfulness and/or spirituality?

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Method of Inquiry

The method of inquiry used in the research is action inquiry, which is “a kind of behavior that is simultaneously productive and self-assessing” (Torbert, 2004). The framework helps to meet the needs to transform healthcare leaders for purposes of transforming their organization. To conduct the study, I taught a reflective practice exercise based on the action inquiry framework to a group of Director-level healthcare leaders as part of a high-potential development program within a large-scale health system (roughly 29,000 total associates) based in the United States Midwest. Components of mindfulness and spirituality were also integrated into the practice. The exercise was designed to deepen their self-knowledge of their personal “defensive routines”, which are psychological coping strategies for dealing with stress situations (Boyatzis & McKee, 2005). At the end of eight weeks of participants engaging in the reflective practice exercise, I assessed their levels of self-knowledge gained from the reflective practice, and determine what the primary barriers were for those that did not deepen their self-knowledge.

Conclusions and Recommendations

The results of the study suggest that individuals who engage more consistently in reflective practice seem to have bigger gains in self-knowledge. Also, engaging in reflective practice seems to contribute to the gain of self-knowledge, regardless of the frequency. An individual’s development level seems to play a role in the extent to which he/she engages in reflective practice, and also on the nature of what they reflect on. Barriers to reflective practice also seem to be shaped by development level, with informational being primary for earlier stage and motivation being a primary barrier for later stages. Also, individuals who reflect on emotional and physical stress patterns, and who practice mindfulness, seem more likely to engage in reflective practice more frequently. Spiritual practice was not identified as a primary contributor to gaining self-knowledge and requires further study. Additional research is also recommended on the impact of development level on how an individual engages in reflective practice, for purposes of individualizing the development experience.

Key References

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Introduction

Background Information

I conducted my study as an action research project within the context of my workplace, a large-scale health provider based in the Midwest region of the United States. The organization is the largest healthcare system within the geographic central region of its state, with 29,000 associates providing care through over 200+ locations. The organization is also one of the most profitable and consistently-ranked high-quality healthcare systems in the country. And, the associate culture has been nationally recognized through Fortune magazine’s "Best Places to Work" list for thirteen years in a row.

It is also a time of significant and rapid change in healthcare. The industry and reinforcing systems have been built around one common assumption, which is to take care of the sick. A new model of healthcare is already taking shape – one that is characterized by a preventative and more holistic approach to nurturing well-being (Goozner, 2019). The question has become one of how to keep people out of the hospitals to begin with, while educating patient communities on creating paths for a higher quality of life. This has clear implications for leadership. The new healthcare leader can no longer simply be a reactive fixer of problems of the sick but rather a proactive steward of well-being for the community. It is nothing less than a complete paradigm “flip” for healthcare leaders and clinicians, who require a whole new set of skills to be drive systemic change.

In the rapidly-changing context of healthcare, leaders have to make quick decisions in a time of increasing uncertainty, ambiguity, and complexity. And, they can no longer ignore the mission of the organization: to improve the health and well-being of those we serve. “Those we serve” includes not only patient communities, but also our own team members and associates, who are experiencing unprecedented levels of burnout. In addition, the leaders themselves have to role model the way by being in tune with and making decisions in support of their own health and well-being. A meta-competency for success in this new context – and one that we are heavily investing in developing - is emotional intelligence (EQ).

Project Purpose

A sampling of the literature from the fields of emotional intelligence (Gardner, 2011; Goleman, 1998; Goleman, Boyatzis, & McKee, 2013) and developmental psychology (Kegan, 1982; Cook-Greuter, 2013; Torbert, 2004) all suggest that reflection and introspection is a critical capability contributing to personal growth. The common theme suggests that the more disciplined an individual is at engaging in consistent self-reflection, the more likely they will develop higher levels of emotional intelligence (Goleman, 1998, p. 4) and progress on developmental levels (Cook-Greuter, 2013, p. 43, 60).

Emotional intelligence is frequently called a meta-competency because to be considered proficient in EQ, there are a number of capabilities and skills that one needs to master. Given the complexity of EQ as a whole, it was much too broad for the scope of my study. I was able to better focus my scope by drawing in particular off of the literature from the organizational
psychology spirituality in the workplace domains. Most notably, Eurich (2017, p. 98) and Wigglesworth (2014, p. 48) suggest that self-knowledge provides us with a deeper understanding of self; one that is achievable through reflective learning and self-inquiry. I therefore narrowed the frame of my research question to the following: how does the application of more consistent reflective practice affect the levels of an individual’s self-knowledge?

The insights from this question are important because it will help to more fully inform the significance level of reflective skills and practices as a part of leadership effectiveness. This study has the potential to help me in determining the right levels of focus we should pay in our leadership development curriculum. In addition, participants in the study have the potential to benefit by gaining new insights on themselves, which should help them to be more impactful, develop more self-efficacy, and/or change inner and behavioral habits that are no longer serving them or others.

**Problem Statement**

Perhaps the best way to sum up the problem is to borrow a quote from Kegan and Lahey:

We’re already the most over-informed, under-reflective people in the history of civilization” and that “true development is about transforming the operating system itself, not just increasing your fund of knowledge or your behavioral repertoire. (Kegan & Lahey, 2009, p.6)

As the rules of healthcare change, provider organizations have to transform how they deliver care to patients, and need to evolve to be much more nimble, adaptive, and predictive than the old healthcare paradigm. This requires a transformation in how our leaders lead. The vision, strategy, operating procedures, and how they engage their people needs to be radically different. To get there, we need to accelerate our leaders’ ability to shift from what Kegan & Lahey (2016) call the “socialized mind” (a faithful follower who seeks direction) to the “self-authoring mind” (an independent agenda-driving problem-solver) and further on to the “self-transforming mind” (an interdependent, learning-oriented problem-finder) (p. 62). Boyatzis’s Theory of Self-Directed Learning shows that leaders intentionally change only by engaging in an honest and open self-assessment of who their “real self” is against the “ideal self” (Goleman, Boyatzis, & McKee, 2013, p. 109-113). By this account, leaders’ ability to self-reflect to gain deeper self-knowledge serves as the critical ingredient to transforming healthcare organizations.

**Guiding Questions**

In leading my research, I am leveraging the following questions to guide my focus:

- How does the application of more consistent reflective practice affect the levels of an individual’s self-knowledge?
- What are some of the barriers to engaging in reflective practice?
- What are the potential predictive indicators of the extent someone will engage in reflective practice?
What are the opportunities to enhance reflective practices leveraging mindfulness and/or spirituality?

**Literature Review**

The guiding questions shaped the literature review across five primary domains coming largely from fields of study in the psychology, management, leadership, and spiritual disciplines. Below is a summary of insights relative to the research questions.

**Ego Development Theory**

Since the development of leaders is the primary task this research project serves, the literature review will start with a brief review of ego development theory. It is important to understand how reflection and self-knowledge contributes toward developmental progression. The following is a sampling of key contributors to how adults develop and progress over time.

Kegan (1982) points out that movement from simpler levels of meaning making to more complex levels requires individuals to dialogue with themselves. They must be self-reflective and able to isolate their motivations, as well as integrate perceptions of their own needs with the needs of others. Individuals with meaning making systems in which they can differentiate between themselves and others indicates the presence of a reorganized interior life in which the individual can internally consider the other when thinking, feeling, and acting. It is both an internal transformation and reconstitution of the self that leads to more complex ways of meaning making, by which individuals are able to identify their impulses and consider the interactions that could result from their actions.

Cook-Greuter (2013), in building off of the work of developmental psychologists Loevinger (1976), Graves (1974), Kegan (1982), and Commons & Richards (1984) in particular, show how the ability to self-reflect on broader dimensions of self, society, the world, and the universe is a critical capability in developing cognitive, emotional, and behavioral aptitude. “As healthy development unfolds, autonomy, freedom, tolerance for difference and ambiguity, as well as flexibility, self-awareness, and skill in interacting with the environment increase while defenses decrease” (Cook-Greuter, 2013, p. 3). While all stages of development require a greater ability to self-reflect to gain self-knowledge, two stages in particular seem to evolve largely from a leap in this capability. For the stage called the “Achiever”, which is where a large majority of leaders reside today (Torbert, 2004, p. 79), “personality tests, asking others for feedback, taking educational and professional courses and retreats as well as a new level of introspection lead to increasing self-knowledge” (Cook-Greuter, 2013, p. 43). Going to the next stage beyond Achiever, known as the “Individualist” stage, there is also a momentous shift that occurs in moving from the “Conventional” to the “Postconventional” tier of development (Cook-Greuter, 2013, p. 6). “The very heightened capacity to contact the self and to introspect leads to a greater capacity to empathize with others and to tolerate different ideas, behaviors, and reactions” (Cook-Greuter, 2013, p. 60).

Beck and Cowan argue that “sufficient human cognitive capacity is needed to enable man to obtain the necessary insight into, and understanding and comprehension of, the complexity and nature of the life conditions. When man was finally able to see himself and the world around him with clear cognition, he would find a picture that is far from pleasant” (p. 112).

Torbert (2004) proposes that “self-transformation…is a long, lifetime path” that sees us passing through major stages called an “action-logic: an overall strategy that so thoroughly informs our experience that we cannot see it” (p. 66). Through the iterative use of action and reflection (Torbert’s “action inquiry” framework) an individual can develop through action-logics of increasing levels of self-awareness, complexity of thought, and abilities to self-transform (p. 68).

**Emotional Intelligence and Leadership**

How critical is reflection to building emotional intelligence? In the Theory of Personal Intelligences, Gardner divides personal intelligence into the intrapersonal (involved chiefly in an individual’s examination and knowledge of his own feelings) and interpersonal (looks outward toward the behavior, feelings, and motivations of others) (Gardner, 2011, p. 255). He believes that these two forms of knowledge are intimately intermingled in any culture. Neither form of intelligence can develop without the other (Gardner, 2011, p. 255).

Goleman (1998) talks about the importance of the “inner rudder” as the basis for all emotional intelligence (chapter 4). “People who follow their inner sense of what is worthwhile minimize emotional static for themselves” (p. 58). Goleman goes on to emphasize “intuition and gut feeling bespeak the capacity to sense messages from our internal store of emotional memory – our own reservoir of wisdom and judgment. This ability lies at the heart of self-awareness, and self-awareness is the vital foundation skill for emotional awareness, accurate self-assessment, and self-confidence” (p. 61).

Goleman, Boyatzis, & McKee (2013) say that the “most telling sign of self-awareness is a propensity for self-reflection and thoughtfulness. Self-aware people typically find time to reflect quietly, often off by themselves, which allows them to think things over rather than react impulsively. Many outstanding leaders, in fact, bring to their work like the thoughtful mode of self-reflection that they cultivate in their spiritual lives. For some this means prayer or meditation; for others it’s a more philosophical quest for self-understanding” (p. 40). Further, “to connect with a vision that can move a culture toward resonance, emotionally intelligent leaders start by looking inside – at what they feel, think, and sense about their organizations. Tapping into insight can come more easily if a leader makes a habit of reflecting on a regular basis. Reaching into the wisdom of the unconscious mind is like trying to pump water from a deep well – it helps to keep the pump primed (by regularly spending time in reflection)” (p. 205).

Cashman (2017) makes the case that “With no reflection, there is no vision. With no vision, there is no leadership” (p. 170-171), and throughout his text stresses the importance of “taking time to reflect – taking time to be… as the still point that everything else (resilience, actions, vision) revolves around” (p. 164).
In looking specifically at the field of healthcare, the literature consistently points to the importance of emotional intelligence as a critical competency for leaders, with reflection being one of the key dimensions to cultivate. Freshman & Rubino (2002) define the self-management component of emotional intelligence as the “propensity for reflection, ability to adapt to changes, saying no to impulsive urges”, citing how “EI skills of self-awareness, reflection, intuition, and compassion for yourself and others will be of great service toward using energy stirred up by emotional events in productive ways” (p. 8). In a review of literature on the importance of emotional intelligence in nursing leadership, Feather (2009) mentions a study by Segal (2002) which identifies “tuning inward” (p. 379) as a suggested competency that makes a person a good leader. And, in a review of leadership education occurring in medical education of physicians, Mintz & Stoller (2014) found that “models of professionalism have been constructed around EI as a leadership skill” (p. 26). In citing one example, the authors note the important inclusion of “structured reflection, which aligns well with the EI competency of self-awareness” (p. 26).

Reflection, Introspection, and Metacognition

Reflection has a long history in the field of organization development. OD researchers recognized the importance of reflection for better decision-making. In a classic organization development publication, Argyris & Schon (1974) introduced the notion of differences between “espoused theories” and actual “theories-in-use” (p. 6-7). They argued that to help someone get to see actual theories-in-use requires self-examination of assumptions through “double-loop learning.” Through double-loop learning, an individual can engage in two kinds of behavioral learning at the same time through reflection. The first learning centers on the adoption of new action strategies to achieve governing variables, and the second learning centers on changing the governing variables themselves (p. 18). They say that “the theory-builder becomes a prisoner of his programs if he allows them to continue unexamined indefinitely. Double-loop learning changes the governing variables (the “settings”) of ones’ programs and causes ripples of change to fan out over one’s whole system of theories-in-use” (p. 19).

Schon (1983) extended the notion of reflection for effective applied practice by pointing out that “the process of reflection-in-action is central to how well people deal with situations of uncertainty, instability, uniqueness, and value conflict” (p. 50). He proposes that “through reflection, a practitioner can surface and criticize the tacit understandings that have grown up around the repetitive experiences of a specialized practice, and can make sense of the situations of uncertainty or uniqueness which he may allow himself to experience” (p. 61). When applied to the practice of leadership, this would take the form of reflecting in-the-moment on strategies and schema that directs actions. In an article that applies Schon’s work to a healthcare setting, Fransson-Sellgren, Wahlstrom, & Sandahl (2009) state that “part of leadership education involves professional and personal development. The role of reflection is central for professional development.” (p. 162)

Torbert (2004) took reflection-in-action a step further with “action inquiry”, which he defines as “a kind of behavior that is simultaneously productive and self-assessing” (p. 13). Torbert proposes to be truly effective, you need to choose “timely action” (p. 13) which relies on our capacity to engage in single (behaviors/operations), double (strategy/structure/goals), and triple (attention/intention/vision)-loop feedback (p 18-19). Triple-loop feedback is described as a
“super-vision”, which refers to a higher quality of awareness – a more “sinuous, just-in-time awareness that generates the exercise of vulnerable, mutuality-enhancing, transforming power under real-time pressures” (p 21). To develop “super-vision”, Torbert offers the primary vehicle of self-reflection by “beginning to recognize how limited our ordinary attention and awareness is… and beginning to exercise our awareness in new ways in the midst of challenging situations. A good way to begin recognizing the limits of our ordinary attention is to take a moment right now to reflect” (p. 21).

In review of common competencies for healthcare managers, Stefl (2008) leverages a “skill acquisition model developed by Stuart Dreyfus and Hubert Dreyfus (1986)” (p. 365). As a part of this model that has been extensively leveraged in healthcare leadership development, Dreyfus and Dreyfus point out that “progressing from one skill level to another, especially from novice to competent, typically requires experience coupled with guided reflection” (p. 366).

Csikszentmihalyi (1990) argues that we are ultimately the agents of our own experience, regardless of what is happening around us. “We create ourselves by how we invest this energy. And it is an energy under our control, to do with as we please; hence, attention is our most important tool in the task of improving the quality of experience” (p. 33). He goes on to describe what he calls the “autotelic personality”, which are “people who need only a few external cues to represent events in consciousness…and have a more flexible attention that allows them to restructure experience more easily, and therefore to achieve optimal experiences more frequently” (p. 87).

Interestingly, it seems that action may be preferred over reflection for most. In examining the impacts of thinking over action for learning, Di Stefano, et. al, (2015) found that individuals who are given time to reflect on a task improve their performance at a greater rate than those who are given the same amount of time to practice with the same task. However, they also found that if those same individuals are given the choice to either reflect or practice the task, they prefer to allocate their time to gaining more experience with the task– to the detriment of their learning (p. 25).

The case for reflection for self-knowledge up to this point seems fairly sound. However, more recent research on reflection, introspection, and pursuit of self-knowledge suggests it is not so clear-cut. As mentioned earlier in this paper, Eurich (2017) found from meta-analyses and her own research that “thinking about ourselves [isn’t] correlated with knowing ourselves. We can spend endless amounts of time in self-reflection but emerge with no more self-insight then when we started” (p. 98). Wilson and Dunn (2004) point out some of the inherent challenges of relying too much on introspection for building self-knowledge: “because of personal motives and the architecture of the mind, it may be difficult for people to know themselves. People often attempt to block out unwanted thoughts and feelings through conscious suppression and perhaps through unconscious repression, though whether such attempts are successful is controversial. Introspection cannot provide a direct pipeline to these mental processes; though some types of introspection may help people construct beneficial personal narratives” (p. 493).

Stein and Grant (2014) seem to support this when they found that dysfunctional attitudes (negatively biased assumptions and beliefs regarding oneself, the world, and the future) suppress
the relationship between self-reflection and self-insight (p. 505). And, in a study from an earlier year, Grant (2001) focused on the relationship between an individual’s psychological mindedness (their predisposition to engage in reflection on why one and/or others behave, think, and feel in the way that they do) and their ability to gain self-insight (p. 12). He suggested that the predisposition is comprised of both abilities and motivations, and that an individual’s psychological mindedness could be seen by the extent in which they engage in reflective acts and their level of insights that they gained (p. 16).

If reflection and introspection in themselves are not such clear-cut paths to self-knowledge, what are? Eurich (2017) contends that “the problem with introspection, it turns out, isn’t that it’s categorically ineffective, but that many people are doing it completely wrong” (p. 100). She goes on to offer some tools that will help to ensure that introspection is more productive including various forms of mindfulness (p. 137-151) and receiving, reflecting, and responding to feedback from others (p. 196-197). Grant, Franklin, and Langford (2002) offer that “conscious and purposeful self-reflection lead to greater self-insight” (p. 831). Stein and Grant (2014) found that facilitating a “positive core self-evaluation” had a mediating effect on dysfunctional attitudes (p. 505). And, Wilson and Dunn (2004) suggest that observing our own behavior and looking at ourselves through the eyes of others can contribute to self-knowledge (p. 493).

**Mindfulness**

Interest in mindfulness has significantly grown in the past few decades. Increasingly it is the point of study as a tool for building self-knowledge (Eurich, 2017; Boyatzis & McKee, 2005; Carlson, 2013). Boyatzis and McKee (2005) connect mindfulness cleanly to becoming an emotionally intelligent leader – what they call the “resonant leader”. They define mindfulness as “the capacity to be fully aware of all that one experiences inside the self – body, mind, heart, spirit – and to pay full attention to what is happening around us – people, the natural world, our surroundings, and events” (p. 112). They argue that mindfulness and self-knowledge are inseparable: “knowing yourself enables you to make choices about how you respond to people and situations. Deep knowledge about yourself enables you to be consistent, to present yourself authentically, as you are” (p. 120). Incorporating mindfulness, they argue, happens only through a process of “reflection, practice, and supportive relationships” (p. 137). They emphasize the importance of prioritizing reflective practice “whether through meditation, spiritual practice, walking in natural, beautiful surroundings, or writing one’s personal thoughts and feelings in a journal” (p. 138).

There is an abundance of literature in the psychology field showing how mindfulness can help to lower inner emotional defenses and improve cognitive functioning, which can clear a path for individuals to learn more about self. In reviewing just a few of these studies, Ghasempour and Ghorbani (2013) offer mindfulness as a pre-reflective activity, rather than reflective itself, calling it an “aspect of experiential self-awareness” that supports mental health by “disengaging individuals from automatic thoughts, habits and unhealthy behavior patterns” (p. 1031). Zeidan, Diamond, and Goolkasian (2010) showed how mindfulness meditation improved cognitive functions such as visuospatial processing, working memory, and executive functioning (p. 597). In leveraging a mindfulness-based approach to cognitive therapy, Britton, et al., (2012) were able to reduce emotional reactivity to social stress in their subjects (p. 365).
In a study that is highly relevant to the primary research question at hand, Carlson (2013) directly explored how mindfulness serves as a path to overcoming barriers to self-knowledge (defined as “the accurate perception of one’s thinking, feeling, and behaving”, p. 174). He argues that in order to achieve self-knowledge, “people must observe themselves engaging in a behavior that is relevant to a specific trait and then accurately infer the meaning of that behavior with respect to the trait” (p. 174). Further, he reinforces the notion that introspection and reflection are a faulty path toward self-knowledge, saying “people tend to place a great degree of trust in their introspections, but generating explanations for one’s tendencies seems to make self-perceptions less accurate” (p. 175). This is due, he claims, to people inherently having two primary inner barriers to self-knowledge: informational (the individual literally does not have access to all needed information) and motivational (the individual does not have the desire to learn) (p. 174-175). In a meta-analysis, he finds compelling evidence that mindfulness appears to directly address these barriers (p. 177-179). He reasons that “introspections are often wrong, and introspecting about the causes of negative emotions seems to have negative mental health outcomes. The key difference is that [introspection] involves analyzing, explaining, or interpreting what is observed whereas mindfulness involves observation of one’s experience without telling a story” (p. 176). Therefore, “paying more attention to one’s current experience may help a person to overcome many informational barriers, and nonevaluative observation may help one to overcome motivational barriers to self-knowledge” (p. 176).

Mohapel (2018) leverages neurobiology research to make a strong case for using mindfulness as vehicle for building leadership effectiveness in healthcare. In his review of research, he summarizes that “researchers have studied the impact of interruptions and distractions in healthcare settings and have concluded that they interfere with various kinds of higher order thinking tasks, many associated with effective leadership” (p. 87). From a neurobiology perspective, “excessive multitasking appears to…diminish our focus and concentration. In contrast, mindfulness practice is shown to have the opposite effect by…enhancing leadership focus that can lead to greater flexibility, foresight, regulation, and creativity” (p. 87). Therefore, he argues that mindfulness is critical to leadership effectiveness in healthcare in particular because “healthcare environments are increasingly hectic, demanding, and time constrained, with managers and professionals experiencing constant interruptions” (p. 87).

Finally, Wasylkiw, Holton, Azar, & Cook (2015) conducted a pilot study of 11 mid-level healthcare managers on the impact of mindfulness on leadership effectiveness in a health care setting. Participants showed significant positive changes in their leadership effectiveness that was corroborated by informants. However, they also found that the constant activity and change that the mid-level managers face on a daily basis presents significant challenges to sustain a mindfulness practice (p. 893).

Given the evidence from a brief review of literature, it seems that the incorporation of mindfulness practice is an important consideration as a means to deepening self-knowledge. Special considerations should be made in how to make it impactful in the healthcare setting.
Spirituality

Like mindfulness, spirituality has been increasingly making its way into the workplace in recent decades. There is a growing body of literature on how organizations are benefitting by cultivating soul and spirit in their leaders and employees.

The review of workplace spirituality starts with Wigglesworth (2012), a text that is referenced in the introduction of this paper on building spiritual intelligence. Firstly, Wigglesworth defines spirituality as the “innate human need to be connected to something larger than ourselves, something we consider to be divine or of exceptional nobility” (p. 8). As mentioned earlier, Wigglesworth identifies self-knowledge as “the foundation for becoming the wise, compassionate, and peaceful person you have the capacity to become” (p. 48). She suggests that an individual can increase self-knowledge by tending to one’s awareness of five specific skills: (1) worldview; (2) life purpose; (3) values hierarchy; (4) complexity of inner thought; and (5) the difference between ego self and higher self (p. 48). She says that “a spiritually intelligent person learns to shift in the midst of the challenging moment to prevent the ego from driving her reactions” (p. 132). To cultivate this, Wigglesworth offers an extensive reflective practice that integrates techniques in mindfulness, prayer, self-observation, mental reframing, and gratitude to “choose a spiritually intelligent response” (p. 132-133). While she does not say it overtly, Wigglesworth is suggesting that the path to self-knowledge is through inner work marked by a deep reflective practice that also incorporates a connection to a “Higher Self” (p. 47).

In reviewing a sample of other spirituality literature, while each saying it differently, they all seem to suggest the same as Wigglesworth. Briskin (1998) talks about how “the soul seeks logos, which is associated with qualities such as meaning, understanding, voice, language, and expression” (p. 139). To get there, “Individuals require both reflective time and dialogue with others to achieve logos. The notion of logos suggests that without reflective time our worldview becomes fragmented and chaotic” (p. 139). Dreaver (2000) discusses how gaining inner clarity and paying attention to be the foundation of what he calls obtaining the “core insight – knowing yourself at the deepest level of being” (p. 3). Ashmos and Duchon (2000) offer that “the inner life, for many, is about coming to understand one’s own divine power and how to use that divine power to live a more satisfying and more full outer life” (p. 135-136). They suggest that practices such as meditation, self-reflection, and prayer are the ways to cultivate this divine power (p. 137). In applying spirituality to transformational leadership, Scharmer (2018) discusses the importance of “presencing”, which is a deeper state of “presence and sensing”. He says that “this requires a reflective, meditative capability to effectively access” (p. 10-11). Finally, in separate but related articles, Delbecq (2000) and Levy (2000) draw from an experience in a pilot course on spirituality for business leaders to provide a compelling case for teaching executives deeper reflective practices, such as contemplative prayer. Delbecq, who was the instructor, mentions how “introduction of contemplative practice learning module into the course for MBAs and CEOs led to realizations that entering into a contemplative space led to insights that issues of ego and intellect tied to power and wealth could be addressed” (p. 122). Levy, a participant and a CEO of a notable corporation, shares his personal learning: “The bottom line is that our effectiveness as business leaders is shaped by how well we are able to find
inner quiet, how good we are at listening to the inner voice, and how accomplished we become at understanding its message” (p. 131).

In a meta-study on the impact of spirituality in leadership effectiveness within healthcare, Strack, Fottler, Wheatley, & Sodomka (2002) found that “conceptual and empirical research show a strong link between actualized spirituality and effective leadership; effective leaders use their spiritual wisdom, intelligence, and power to benefit others and achieve outstanding results for their organizations” (p. 16). Reimer-Kirkham, Pesut, Sawatzky, Cochrane, & Redmond, (2012) found that spirituality in nursing leadership is a “relatively understudied field” and suggest that more research in this area needs to be done because of the “unprecedented plurality that global migration has brought to modern societies, and spirituality and religion into the purview of nurse leaders” (p. 1029).

The spirituality literature review suggests consideration of cultivating a deeper reflective practice to access something bigger/higher that the self is connected to. There is also a gap in the literature within healthcare, calling for more work to be done in this space.

**Insights and Considerations from the Literature Review**

Overall, the literature suggests that reflection and introspection does help to facilitate self-knowledge in service of developmental growth. However, measures need to be taken to counter some of the limitations of reflection and introspection. In particular, it seems people need to be taught the skills to reflect properly for purposes of working through ego inner defenses that all people possess. The incorporation of mindfulness, feedback, and spirituality show distinct promise in helping this cause.

**Intervention Method and Design**

**Theoretical Framework**

In selecting a theoretical framework as the basis of my intervention design, I wanted to choose a framework that would help to test the basic research question: how does the application of more consistent reflective practice affect the levels of an individual’s self-knowledge? I also wanted to choose a framework that would facilitate a thoughtful connection between individual improvement in self-knowledge and the broader system change needs. Torbert’s action inquiry framework met these criteria.

Torbert (2004) calls action inquiry “a kind of behavior that is simultaneously productive and self-assessing” (p. 13). As referenced earlier, perhaps the most critical shift that we can help our leaders and organization to make is to become more “self-authoring” and/or “self-transforming” (Kegan & Lahey, 2016). Therefore, this definition meets our needs to transform our leaders to enable transformation of the organization. Torbert reinforces this potential of action inquiry, saying that “such action helps individuals, teams, organizations, and still larger institutions become more capable of self-transformation” (p. 1). Going further, and more directly connecting this to the primary research question, action inquiry enables self-transformation by “carefully attend(ing) from the inside-out to the experiences we have, hoping to learn from them and...
modify our actions and even our way of thinking as a result” (p.4). With the “promise of transforming power… emanat(ing) from a willingness to be vulnerable to transformation of oneself” (p. 8) as the backdrop, action inquiry provides an ideal framework to leverage for my intervention.

Action inquiry incorporates a whole-systems approach by leveraging a complex interrelationship between three foundational components: perspectives (p. 19); levels of awareness and feedback (p. 18-19); and territories of experience (p. 21-22). For the first foundational component of perspectives, action inquiry takes into account three different perspectives for three different aims: (1) a first-person, subjective perspective, which has the aim to generate integrity in ourselves; (2) a second-person, interpersonal perspective, which has the aim to generate mutuality; and (3) a third-person, organization, society, and environment perspective, which has the aim to generate sustainability (p. 7). For the second component of levels of awareness, an individual can have three different levels of awareness in relation to observed outcomes in the external world: (1) single-loop awareness & feedback, which deals with making choices in behavior; (2) double-loop awareness & feedback, which deals with making choices in setting strategy, structure, and/or goals; and (3) triple-loop awareness & feedback, which deals with what the individual’s attention, intention, and/or vision is set on (p. 18-19). For the third and final component of territories of experience, an individual can experience the external world in four ways: (1) first territory, which is neutral observation, inquiring, and assessing of outside events; (2) second territory, which is the individual’s own sensed performance of behaviors, skills, and illustrated patterns of activity; (3) third territory, which is the individual’s action-logics, or their chosen strategies, schemas, thinking/feeling patterns, and reflection on experience; and (4) fourth territory, which is the individual’s intentional attention, presencing awareness, framing, and vision (p. 22). A summary of how the action inquiry components manifest together can be found below in table 1.

Table 1. How the Levels of Awareness and Four Territories of Experience Manifest Themselves in First-, Second-, and Third-Person Perspectives (Torbert, 2004, p. 39).

<table>
<thead>
<tr>
<th>Territory of Experience</th>
<th>First-Person Attention</th>
<th>Second-Person Speaking</th>
<th>Third-Person Organizing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourth Territory</td>
<td>Intending</td>
<td>Framing</td>
<td>Visioning</td>
</tr>
<tr>
<td>Third Territory</td>
<td>Thinking/Feeling</td>
<td>Advocating</td>
<td>Strategizing</td>
</tr>
<tr>
<td>Second Territory</td>
<td>Sensing/Behaving</td>
<td>Illustrating</td>
<td>Performing</td>
</tr>
<tr>
<td>First Territory</td>
<td>Effecting/Perceiving</td>
<td>Inquiring and Listening</td>
<td>Assessing</td>
</tr>
</tbody>
</table>

Research Design

The intervention design began by clarifying intended outcomes. With the scope of research focused on leveraging reflective practice for increasing self-knowledge, it was important be more specific in what it looks and feels like to have gained self-knowledge. While the literature review shows that self-knowledge can include many components, this intervention had a focus on helping individuals to raise their knowledge of mental, emotional, physical, and behavioral patterns in service of understanding what it looks and feels like when the ego self is activated.
(Eurich, 2017, p. 32-42; Wigglesworth, 2015, p. 57-65). This is important because the “ego’s primary goal is to keep us safe” (Wigglesworth, 2014, p. 60-61) and while that is certainly an important function, “excessive fear activation robs us of joy as well as leadership capacities” (Wigglesworth, 2014, p. 61). Also, given the insights gained from the literature review on mindfulness and spirituality, these elements were incorporated into the intervention as well.

To conduct the study, a reflective practice exercise based on the action inquiry framework (Torbert, 2004) was introduced to a group of eighteen Director-level leaders within the Midwest-based healthcare system who are participating in a high-potential leadership development program. Informed consent of the participants was obtained as part of their onboarding agreement into the program. In addition, the appropriate permission from the internal research organization was secured for the study.

The reflective practice exercise integrated components from Torbert (2004), Wigglesworth (2014), Bolman and Deal (2011), and Boyatzis and McKee (2005). Torbert offers three useful sets of exercises that the design was based upon: (1) practice noticing (p. 56-57); (2) practice naming (p. 57-59); and (3) practice action inquiry (p. 59). To add mindfulness and spiritual components to the practice, the activity incorporated a technique offered by Wigglesworth (2014) to “stop and breathe” in the moment prior to engaging in reflective activities (p. 133-136). A technique offered by Bolman and Deal (2011) to “summon spirit” through “art, ritual, stories, music, and icons” (p. 171) was also included. Finally, Boyatzis and McKee (2005) provided the content foundation for learning about “defensive routines”, which they define as “ineffective habits of mind and behavior” serve as “coping mechanisms…to protect or distract us from the discomfort of our current emotional state” (p. 44). See “Appendix A” to see more details on the in-session exercise built to teach this content through a reflective and interactive way.

The exercise asked them to pause shortly after an incident or event in which they experience a stress response or defensive routine to reflect on what is happening within their inner territory (practice noticing). The exercise then asked them to do a brief centering technique first (practice mindfulness), followed by describing as accurately as possible what they are/were thinking, feeling, and physically experiencing in that moment (practice naming). Participants were also asked to share stories and name an image, song, or metaphor that captures the essence of their experience (practice spirituality). To help them, participants received a form to prompt their reflections more consistently. See “Appendix B” for a view the reflective activity.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Timing</th>
<th>Key Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention Design</td>
<td>3/11 – 3/18</td>
<td>Scoped and proposed approaches, designed approach, produced deliverables</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention Implementation</td>
<td>3/19 – 5/26</td>
<td>Taught supporting content and instructed participants in the activity at LEAD on 3/19, Observed and monitored progress, Assessed outcomes at LEAD 5/21</td>
</tr>
</tbody>
</table>
Participants were asked to conduct the reflective practice exercise three times per week over a period of eight weeks, documenting what they noticed in a journal. At the end of that time, participants were asked to complete an assessment to gauge how well they could accurately describe their internal thought, feeling, body sensations, spirit, and behavioral patterns, which would offer an evaluation of how much self-knowledge they gained from the reflective activities. Additional inquiries were made as to what barriers might have prevented them from completing the activity as asked, and components of self-knowledge that they found most valuable to explore. Finally, participants were asked to reflect on how their specific attention to and perspective on the entire eight-week exercise affected their experience with it (to practice action inquiry on the process itself). Assessments were collected during the LEAD session in May and served as the primary data to analyze findings.

Results

I will walk through the analysis of my findings by following the basic structure of addressing each of my research questions.

**Research Question 1: How does the application of more consistent reflective practice affect the levels of an individual’s self-knowledge?**

I broke this question down into a two-part analysis. For the first part, I focused simply on evaluating the overall impact that the reflective exercise had on the self-knowledge of participants. I leveraged a question that asked participants to choose from a 5-point Likert scale rating the impact that the reflective exercise had on them, regardless of how many times they completed it. A full 100% of the participants reported gains in self-knowledge from the exercise, with some varying degrees of the extent of impact. Below is a breakdown of these results.

**Table 3.** Participant responses to question “To what degree would you say that the reflective activity increased your self-knowledge?”

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Response %</th>
<th>Response #</th>
</tr>
</thead>
<tbody>
<tr>
<td>A great deal</td>
<td>29%</td>
<td>5</td>
</tr>
<tr>
<td>A lot</td>
<td>29%</td>
<td>5</td>
</tr>
<tr>
<td>A moderate amount</td>
<td>41%</td>
<td>7</td>
</tr>
</tbody>
</table>
To obtain additional insights on the responses above, I evaluated comments that were provided by the participants around two questions: (1) What is your overall perspective on the reflective activity that you completed?; and (2) What difference will this reflective experience make in your life going forward? The most common themes that emerged across participants were learning about emotional responses to stress; increased self-awareness; and overall learning about self.

For the second part, I analyzed the relationship between the frequency of practice and relative gains in self-knowledge. When I introduced the reflective exercise to participants, I asked them to complete it an average of three times per week for a period of eight weeks. I purposely suggested that participants complete the activity on a high-frequency basis to explore potential variability across an expected range of engagement. I asked participants to estimate the number of times that he/she was able to complete the practice over the eight weeks by making one selection from a list of five range options. The ranges were created in a way in which I could assign their frequency performance using percentile rankings. Four of the seventeen participants (24%) met or exceeded the target number of reflection points (high frequency). Another six (35%) completed it at least half of the time (moderate frequency). Seven participants (41%) completed less than half of the time (low frequency). The below table summarizes the results.

Table 4. Participant responses and percentile rankings to question “Approximately how many times were you able to complete the practice over the past eight weeks?”

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Response %</th>
<th>Response #</th>
<th>Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 24</td>
<td>12%</td>
<td>2</td>
<td>125(^{th})</td>
</tr>
<tr>
<td>19-24</td>
<td>12%</td>
<td>2</td>
<td>100(^{th})</td>
</tr>
<tr>
<td>13-18</td>
<td>35%</td>
<td>6</td>
<td>75(^{th})</td>
</tr>
<tr>
<td>7-12</td>
<td>29%</td>
<td>5</td>
<td>50(^{th})</td>
</tr>
<tr>
<td>0-6</td>
<td>12%</td>
<td>2</td>
<td>25(^{th})</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

I cross-referenced the percentile rankings to the self-reported gains outlined in part one above to determine if there was any correlation between frequency of practice and gains of self-knowledge. The analysis showed that those participants who completed the exercise with the highest degree of frequency reported the most gains in self-knowledge. This was true for the group of participants reporting the highest gains (indicated by “A great deal”), but there was not
a significant difference between those participants reporting gains of “A lot” and “A moderate amount.” The below table summarizes these results.

The final part of my analysis for the first research question was to review comments of participants in response to the question “If you were to do this activity over again, what would you do differently (if anything)?” The common themes across participants were that they started to “gain more when they gave more” and that they would complete the exercise more frequently if they were to do it over again.

An overall interpretation of the findings for the first research question suggests that for this group of seventeen leaders, engaging in the reflective practice exercise in itself contributed to gains in self-knowledge. And, it appears that those individuals who engaged in the reflective exercise the most frequently over an extended period of time experienced the largest gains. These findings imply that there may be a connection between frequency of reflective practice and self-knowledge.

Table 5. Analysis of frequency of practice and degree of gains in self-knowledge.

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Response #</th>
<th>Average Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>A great deal</td>
<td>5</td>
<td>75&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>A lot</td>
<td>5</td>
<td>65&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>A moderate amount</td>
<td>7</td>
<td>64&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>TOTAL</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

Research Question 2: What are the potential predictive indicators of the extent someone will engage in reflective practice?

To address this question, I defined three primary categories to analyze in my study. The first category is components of self-knowledge, which in my research design I mention as being mental, emotional, physical, and behavioral patterns. The second category is the special practice focus areas of mindfulness and spirituality. The third category is developmental level. I will walk through my analysis of results that were collected relative to all three categories of potential predictors.

For the first (self-knowledge components) and second (mindfulness and spirituality) categories, the reflective practice exercise was intentionally constructed to engage participants in all components of self-knowledge, as well as a mindfulness and spirituality practice. I leveraged results from a question on the assessment in which I asked participants to rank order the degree of influence that each part of the practice had on their gains in self-knowledge. There were eight total practice steps to rank, each of which represented one of the components to self-knowledge. Since I was interested in determining predictors of frequency of practice, I analyzed each practice step / component separately across all participants. I sorted each step / component from highest to lowest rank (1 being highest, 8 being lowest), then split into a top half (representing a
ranking of 1-4) and a bottom half (representing a ranking of 5-8). I then cross-referenced practice frequency percentiles (as assigned in the previous step), noting the numerical spread between the average percentiles between top half and bottom half rankings. This approach showed that participants who ranked emotional and physical practices the highest in influence tended to practice the reflective exercise more frequently. The data also showed that the mindfulness practice was ranked highly amongst high-frequency reflective practitioners. On the reverse side, participants who ranked consideration of impact of actions, mental patterns, and observations of their behaviors as more influential tended to practice the reflective exercise less frequently. Also worth noting is that not one participant ranked the spiritual practice in the top half, so there was no basis to analyze this component. See the below table for a summary of the results.

Table 6. Analysis of reflective practice / self-knowledge components with strongest correlation to frequency of practice.

<table>
<thead>
<tr>
<th>Practice / Component</th>
<th>Average Frequency Percentile for Top Half</th>
<th>Average Frequency Percentile for Bottom Half</th>
<th>Frequency Percentile Spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noticing and naming the specific emotion I feel (emotional)</td>
<td>75th</td>
<td>63rd</td>
<td>+12</td>
</tr>
<tr>
<td>Noticing and locating the place in my body that I experience tension (physical)</td>
<td>75th</td>
<td>68th</td>
<td>+7</td>
</tr>
<tr>
<td>Pausing and taking deep breaths (mindfulness)</td>
<td>73rd</td>
<td>67th</td>
<td>+6</td>
</tr>
<tr>
<td>Examining the overall pattern over longer period of time (meta reflection)</td>
<td>71st</td>
<td>70th</td>
<td>+1</td>
</tr>
<tr>
<td>Noticing the actions / behaviors that I demonstrate (behavioral)</td>
<td>70th</td>
<td>71st</td>
<td>-1</td>
</tr>
<tr>
<td>Noticing what I am thinking / the story I am telling myself (mental)</td>
<td>70th</td>
<td>75th</td>
<td>-5</td>
</tr>
<tr>
<td>Considering the impact of my actions / behaviors on others (impact)</td>
<td>61st</td>
<td>81st</td>
<td>-20</td>
</tr>
<tr>
<td>Identifying a song, image, metaphor, and/or story that captures the essence of my experience (spirituality)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

For the third (developmental level) category, I leveraged a brief developmental assessment designed by STAGES International (O’Fallon & Barta, 2018) to capture an estimated developmental level of each participant. The assessment is based on an ego development theory model created by Terri O’Fallon, which builds upon previous models mentioned in the literature review (Cook-Greuter, 2013; Loevinger, 1976; Graves, 1974; Kegan, 1982; Commons &
Richards, 1984). The assessment required each participant to complete six sentence stems with a free-form response. I then partnered with trained language and grammar assessors from STAGES who evaluated anonymous responses to each sentence for indicators of developmental level. The assessors assigned a probable developmental level from which each response is most likely associated by assigning it a numerical score. The higher the score, the higher level of development. I was instructed by O’Fallon to simply average the six sentence scores to arrive at an overall probable developmental level of the participant. I then cross-referenced developmental level scores with frequency of practice percentiles to explore the relationship between the two. I found those participants who were between Achiever and Individualist levels, as well as one participant who is between Individualist and Strategist level, to engage in the reflective exercise most frequently. Participants between Expert and Achiever levels were less likely to engage in the reflective exercise as frequently, and those solidly at Achiever level were the least likely. Below is a summary of these results.

![Table 7. Analysis of developmental level and strongest correlation to frequency of practice.](image)

<table>
<thead>
<tr>
<th>Developmental Level</th>
<th>Average STAGES Score</th>
<th>Average Percentile</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achiever-Individualist</td>
<td>3.64</td>
<td>79th</td>
<td></td>
</tr>
<tr>
<td>Individualist-Strategist</td>
<td>4.42</td>
<td>75th</td>
<td></td>
</tr>
<tr>
<td>Expert-Achiever</td>
<td>3.25</td>
<td>69th</td>
<td></td>
</tr>
<tr>
<td>Achiever</td>
<td>3.47</td>
<td>60th</td>
<td></td>
</tr>
</tbody>
</table>

An overall interpretation of the findings for the second research question suggests that for this group of seventeen leaders, Achiever-Individualists who practice mindfulness while learning about their emotional and physical response patterns to stress are most likely to engage in consistent reflective practice. On the contrary, Achievers and Experts who do not prioritize mindfulness and focus primarily on their behavior and mental patterns are least likely to engage in consistent reflective practice. Additionally, it does not appear that practicing spirituality as designed in this intervention had much of a factor on frequency of reflective practice.

**Research Question 3: What are some of the barriers to engaging in reflective practice?**

I examined this research question through two perspectives: (1) Carlson’s primary barriers to self-knowledge; and (2) developmental level. For the first perspective, I asked participants to explain what the primary reason(s) were for their inability to complete the reflective exercise less than 24 times (the total one would achieve if fully completing the assignment). Participants could choose up to three reasons why they could not meet the full goal, all of which are tied to Carlson’s (2013) theory of barriers being either motivational (lack of desire) or informational (cannot access parts of themselves). The overwhelming reason that participants did not complete
the reflective activity was not finding the time to prioritize and/or fully complete, which is a motivational barrier. See below a summary of the responses.

**Table 8.** Analysis of barriers to engaging in reflective practice.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Barrier Type</th>
<th># Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Could not find the time to prioritize and/or fully complete</td>
<td>Motivational</td>
<td>13</td>
</tr>
<tr>
<td>Difficulty in accurately completing activity</td>
<td>Informational</td>
<td>2</td>
</tr>
<tr>
<td>Gap in reflection skills</td>
<td>Informational</td>
<td>2</td>
</tr>
<tr>
<td>Attempted but was not gaining any value from the exercise</td>
<td>Motivational</td>
<td>1</td>
</tr>
</tbody>
</table>

For the second perspective (developmental level), I cross-referenced the developmental level numeric scores provided by STAGES International with the reasons provided by participants for not completing the exercise. I found that Achievers primarily experienced motivational barriers while Expert-Achievers primarily experienced informational barriers.

An overall interpretation of the findings for the third research question suggests that for this group of seventeen leaders, the primary barrier to engaging in reflective practice tends to be motivation. The data also suggests that developmental level may potentially play a role in the type of barriers that one experiences to reflective practice.

**Implications**

**Implications for Practice**

For me, the biggest surprise of the intervention was the extent that participants engaged in the reflective activity. In my checkpoint with the group at the half-way point, I posted that I was not feeling very confident that people were actually engaging in the activity as designed. There was not a lot of enthusiasm for the activity in our discussions, and those that shared how it was going for them were few. At that time I drew one conclusion that people were not engaging in the activity, and possibly even not seeing it as valuable. However, the data analysis has proven these hunches wrong. Rather, everyone did, indeed, engage in the activity and ALL found it useful in building self-knowledge. And, the more frequently participants reflected, the more they reported gains in self-knowledge and learning (the opposite was true as well, with the theme of participants reporting that they would engage more frequently if they were to do it over again.) This experience has changed my perception of the readiness and willingness of our leaders to engage in deeper, more reflective inner work, and the meaningful impacts this has on them. It also suggests a connection between frequency of reflective practice and self-knowledge, which implies a greater focus on reflective capabilities in leadership development.
Additional insights that I gained on predictors and barriers to reflective practice were also highly useful. The initial findings of this study point to several components that are worth exploring further. Development level, in particular, seems to play a factor in the extent and how an individual practices reflection. The findings that those who are either moving into or are already at Individualist stage reflect more frequently is consistent with the literature on ego development theory and poses some exciting opportunities to more accurately assess the unique development needs of individuals. Also, what participants tend to focus and not focus on, and what barriers tend to be present, is potentially telling. The findings that those who prioritize mindfulness, as well as reflect on emotional and physical patterns, are more motivated to practice more frequently suggest that individuals may use different prioritizing schema and/or hold a differing readiness for reflecting. All of this points to the need to conduct more research for purposes of informing a more individualized approach to developing our leaders.

On the topic of spirituality practice, the data that I collected did not point to any particular compelling insights. This does not mean that this is not an important component of predicting reflective practice frequency, but rather could be an element that was too unique to include as part of this study. When comparing the degree of exposure and learning that we have given this component relative to others in our LEAD program, we have given it far less attention in our curriculum. It could be that it was just too much to ask them to reflect on at this point, which further points to the topic of readiness. This suggests that some element of content coverage is necessary to help participants make meaning out of inner territory.

For my practice, our leadership development programs need: (1) to more fully incorporate reflection as an element of learning; (2) to work on a more individualized approach to development; (3) to include content and frameworks for making meaning out of inner territory; and (4) to work on creating a safe environment for discussing inner territory more openly. It has been easier to create this in our hi-potential programs, which uses an intimate cohort-based approach to learning over a period of time. The bigger challenge will be to create this experience for the masses, which tends to engage in learning on a more episodic level.

Recommendations

This study had a very large scope, and in essence served as a starting point for me to gauge where I need to go further with deeper study. Each of the research questions that I posed could be a study in itself, and in fact could be narrowed even further. Going forward I will take a more focused approach to action research, with a few dimensions in particular calling for further study. This study just touched on the impact that development level has on the extent and nature of reflective practice. There is a lot of opportunity to explore this territory to better understand how individuals learn to reflect, what motivates them to do so, and how this differs (or not) at different development levels.

The special interest areas of mindfulness and spirituality both offer promise of additional research, in different strands. For mindfulness, the results of this study were consistent with other studies cited in the literature review that this could play a key role in helping people to gain more self-knowledge. What are the specific conditions in which a mindfulness practice contributes? What conditions may it not contribute? What are different ways in which individuals could
practice mindfulness? What are potential barriers to an individual adopting mindfulness practice? There are many other questions to explore in this rich topic.

For spirituality, this study did not even begin to explore the topic in any meaningful depth. As mentioned in the next steps, I would like to give this topic a bit more due in exploring different ways to research this as an element of building self-knowledge. It starts with getting more defined in my research question, and in designing an intervention that more directly defines and assesses spiritual practice. With the promise offered by the literature review, and the continuing growth in the body of research on spirituality in the workplace, there is a significant opportunity to dive deeper into this dimension.

Additionally, there is a lot of opportunity to further explore how other variables might be shaping an individual’s experience with reflection. For example, how does being a part of a high-potential program like LEAD shape the way an individual experiences reflection and reflective exercises? How much influence does this construct have on an individual’s engagement level? Is it different for individuals who are not a part of a unique program like LEAD? One can assume there are other factors involved here that were beyond the scope of this study, but could shed further light on variables predicting reflection.

Finally, I would like to continue to refine my action research methods for future studies. The broad scope of this study, coupled with the narrow scope of the audience, created some inevitable constraints that limit my research and conclusions. The small sample of 17 high-potential director-level leaders is indeed narrow, and I cannot assume that it is representative of the broader population of leaders across the organization. Also, I surveyed a wide range of topics at a higher level, and mostly I gathered data from self-reported insights. The result is that I can only generate curious hunches versus deeper, more definitive conclusions. This suggests that I adopt more focused and sophisticated research methods over time.

References


Carlson, E. N. (2013). Overcoming the barriers to self-knowledge: Mindfulness as a path to seeing yourself as you really are. *Perspectives on Psychological Science, 8*(2), 173-186.


Segal, J. (2002). Good leaders use ‘emotional intelligence’. Emotionally intelligent leadership is a skill that can be learned and taught throughout life. Health Progress 83 (3), 44-46, 66.


Appendix A

**Identifying Defensive Routines** – In-Session Content Exercise

**Step 1: Recall High Pressure Situations.** Take a moment and think about 3-4 situations or events in your past in which you were experiencing a significant amount of pressure or higher-than-normal stress. Try to select situations that span your whole life – both professional and personal. Write those down here.

**Step 2: Identify your Typical Routines.** Check all that apply below. When under stress:

*I Approach and Internalize*

- I get to work earlier and stay at work later
- I continue to add new projects or take on more roles despite a realistic shortage of time or results
- I constantly remind myself of my own or other’s high standards for me
- I expect everyone to perform at my high standards
- I can never say “no”
- I feel a sense of personal obligation to fix everything myself
- I put others’ needs ahead of my own to keep the peace

*I Avoid and Internalize*

- Move further inside: my office, my projects, my thoughts and concerns
- Become detached from relationships with colleagues, friends, and family
- Communicate in short and direct statements about only “essential” information
- Only my mission and goals seem important
- I don’t feel I need input from others
- Other people just get in the way

*I Approach and Externalize*

- I am the only one who knows the answer and can fix this
- If anyone disagrees with me I will disregard them or make them sorry for disagreeing
- My closest friends and advisors always agree with me
- I never waiver on decisions
- I believe that I must win others over

*I Avoid and Externalize*

- Focus on negative aspects of situation
- Wear anger and disappointment on my sleeve
- Criticize or become cynical, with those who want things to change or have hope
- Blame my mood/circumstances on situation or someone else
- Gather and drink with like-minded people and talk about what I think is wrong
- I move on to better things elsewhere
Appendix B

Self Check-In Activity
10-15 minutes

Directions: Each of us has developed unconscious responses to situations that invoke a higher-than-normal stress response. These are known as “defensive routines”, because our ego perceives the situation has some sort of threat, and this leads us to react in a more protective manner. The purpose of this self-reflective activity is to build awareness and knowledge of what your unique defensive routines look and feel like in greater detail, and the situations and/or people that tend to trigger them.

Take a brief pause while experiencing a higher-than-normal stress response, or shortly after you experience it, and check-in with yourself by answering the questions provided below. You are free to document your responses in this form or a journal, whichever works best for you. Try to complete this activity at least three times per week for the next eight weeks.

Step 1: Pause and Breathe. Take three deep breaths, each one deeper than the previous, and let the air out with large exhales. Or, conduct a brief meditation, whichever you need to shift yourself to a more reflective state.

Step 2: Notice it.

What I am thinking about right now is… [openly write whatever comes to your mind]
Where I am experiencing escalated tension and/or tightness in my body is… [muscle tension, depth of breath, blood pressure / heart rate levels, etc.]
The story that I am telling myself at this moment is… [free-write in an unfiltered way]

Step 3: Name it.

I feel… [use the table below and circle the most accurate descriptor(s)]

<table>
<thead>
<tr>
<th>Anger</th>
<th>Anxiety</th>
<th>Fear</th>
<th>Love</th>
<th>Peace</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agitated</td>
<td>Anxious</td>
<td>Alarmed</td>
<td>Attention</td>
<td>Comfortable</td>
</tr>
<tr>
<td>Anger</td>
<td>Confused</td>
<td>Defensive</td>
<td>Caring</td>
<td>Confident</td>
</tr>
<tr>
<td>Annoyed</td>
<td>Confused</td>
<td>Doubtful</td>
<td>Compassion</td>
<td>Peaceful</td>
</tr>
<tr>
<td>Appalled</td>
<td>Distressed</td>
<td>Dread</td>
<td>Concerned</td>
<td>Relaxed</td>
</tr>
<tr>
<td>Disgusted</td>
<td>Dull</td>
<td>Fearful</td>
<td>Encouraged</td>
<td>Safe</td>
</tr>
<tr>
<td>Frustrated</td>
<td>Frantic</td>
<td>Frightened</td>
<td>Engaged</td>
<td>Secure</td>
</tr>
<tr>
<td>Irritated</td>
<td>Helpless</td>
<td>Reluctant</td>
<td>Gentle</td>
<td>Self-Assured</td>
</tr>
<tr>
<td>Outraged</td>
<td>Intense</td>
<td>Started</td>
<td>Honored</td>
<td></td>
</tr>
<tr>
<td>Rage</td>
<td>Nervous</td>
<td>Suspicious</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>Spiteful</td>
<td>Overwhelmed</td>
<td>Tense</td>
<td>Respected</td>
<td></td>
</tr>
<tr>
<td>Upset</td>
<td>Paralyzed</td>
<td>Worried</td>
<td>Tender</td>
<td></td>
</tr>
<tr>
<td>Vindictive</td>
<td>Perplexed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Queasy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skeptical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stressed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Uneasy</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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The specific event, incident, and/or experience that is evolving this feeling is… [describe it in vivid detail, as though you are there]
The actions I took / behaviors I expressed during that event were… [be observant of self and describe in detail]
The impact these actions / behaviors seemed to make on other(s) was… [be descriptive]
The most important thing to me that this event affects is…
A song, image, metaphor, or story that comes to mind that captures the essence of experience is… [write down whatever comes to mind, regardless of how much “sense” it makes]
Hope Examined Through a Developmental Stage Perspective

A Doctoral Dissertation Research Proposal

Lisa Buckley¹

Hope seems to be a human function or process that can be catalyzed when facing limitations and uncertainty that separate us from reaching personally significant goals. The contexts vary, for example: being ill and trying to live until one’s daughter finishes high school; striving to complete college while raising three children and working two jobs; or struggling to find housing when one’s Pacific Island village becomes permanently uninhabitable due to rising seas.

Scholars and laypersons are naming hope as an essential element for dealing with the world’s complexities that threaten our very existence. In the last 30 years, hope has been researched across many academic disciplines with most scholars identifying that hope can be learned and facilitated. Much of the hope research in the fields of psychology, palliative care, education, and sustainability is targeted toward identifying effective interventions to assist individuals with well-hoping. Well-hoping refers to the pragmatic ways which individuals may best utilize the power or function of hoping. Those scholars and practitioners whose work facilitates well-hoping in individuals and collectives are identified as hope interventionists. Hope interventionists include educators, coaches, facilitators, therapists, group leaders, and social activists.

Hope scholars are calling for research to identify the most effective interventions to support individuals to develop capacities related to well-hoping. Identifying individual differences in hoping is another research target. Hope is recognized as a meaning making function that is catalyzed when limitations arise. Currently, research on meaning-making and hope is sought. Since the STAGEs theory and model are based on identifying and working with distinctions in individuals’ meaning making systems, there is value in examining hope through a developmental stage perspective.

The question for Lisa Buckley’s doctoral research is: How do adults within distinct developmental stages perceive and experience hope? The research methodology includes development and use of a stage assessment tool based on O’Fallon’s (2012, 2013, 2018, 2019) STAGES assessment model, methodology, and assessment instrument. In addition to developing

¹ Lisa Buckley has been a consultant to 400 businesses and a Director of Organizational Development Services for a national healthcare company. Her expertise includes leadership and team development, business and market development, operational start-ups, integrating mergers and acquisitions, strategic planning and implementation, and operational redesigns. Previous research and publications have been focused on emergency department services and behavioral health. Currently, Lisa is a doctoral student at Fielding Graduate University in Santa Barbara, California, United States. lisabuckley@email.fielding.edu
and applying this STAGES Hope Specialty Protocol, qualitative interviews of study participants will also be conducted.

The research methodology includes distributing the hope specialty protocol to four individuals who have previously scored in each of the following six stages: Achiever 3.5 through Universal 6.0. With four respondents in each of the stages, there will be a sample sufficient for the Cronbach’s Alpha internal consistency measure of reliability for the Hope specialty protocol. At a minimum, two from each developmental stage will be interviewed.

Anticipated date for completing the research is late 2020.
STAGES Child Research: Preliminary Report
Terri O’Fallon

Abstract. The Loevinger Lineage (Loevinger, Torbert, Cook Greuter, O’Fallon) has much data related to adult development. This includes adults that score at very early levels of development, including Egocentric (late first person perspective in the STAGES model), “Rule Oriented” (early second person perspective), and “Conformist” (late second person perspective). Many of the adult populations comprising the Loevinger lineage research-base at the earliest levels come from adults that are compromised in some way. However, very little research has been done related to first and second person expressions of children, which are the primary ages that take these perspectives. This article describes our first attempt to examine the expressions of children at these levels who have normal healthy expressions of these earliest human perspectives.

Introduction

While there may be other Integral Elementary Schools, the Brisbane Independent School (BIS), is the only one I am aware of that is organized around the developmental levels of the children. It is a private elementary school supervised by a teaching principal, Jennifer Haynes. Jennifer has developed a child and teacher curriculum that honors the developmental levels of both the children in the school and the adults that are teachers there. For many years she has followed the children closely through their developmental journey. Parents are very involved in the school as well. Given the make-up of this school (pre-first grade levels through ages 12-13 years old) BIS seemed like the most appropriate site for a research project on normal healthy child responses at the earliest levels of the STAGES developmental model: late first person perspective (1.5), and early and late second person perspectives (2.0 and 2.5).

For reference, the matrix in Figure 1 defines each of the 12 person perspectives in the STAGES model, and their parametric definitions. See other papers in this special issue describing the STAGES model and these levels.

1 Terri O'Fallon is a researcher, teacher, coach, spiritual director and designer of transformative containers. She does ongoing research on the Integral STAGES developmental model which supports a MetAware tier with four later levels of development. Terri is a partner of STAGES International, which creates programs based on the STAGES model. Terri holds Masters degrees in Special Education and Spiritual direction, and has an Integral PhD in Transformative Learning and Change.

terri@stagesinternational.com
The STAGES Matrix & the Three Questions

<table>
<thead>
<tr>
<th>PP</th>
<th>TIER</th>
<th>SOCIAL</th>
<th>LEARNING STYLE</th>
<th>STAGE NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>Concrete</td>
<td>Individual</td>
<td>Receptive</td>
<td>Impulsive</td>
</tr>
<tr>
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<td>Concrete</td>
<td>Individual</td>
<td>Active</td>
<td>Egocentric</td>
</tr>
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<td>2.0</td>
<td>Concrete</td>
<td>Collective</td>
<td>Reciprocal</td>
<td>Rule Oriented</td>
</tr>
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<td>Interpenetrative</td>
<td>Conformist</td>
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<td>Achiever</td>
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<td>5.0</td>
<td>MetAware</td>
<td>Individual</td>
<td>Receptive</td>
<td>Construct Aware</td>
</tr>
<tr>
<td>5.5</td>
<td>MetAware</td>
<td>Individual</td>
<td>Active</td>
<td>Transpersonal</td>
</tr>
<tr>
<td>6.0</td>
<td>MetAware</td>
<td>Collective</td>
<td>Reciprocal</td>
<td>Universal</td>
</tr>
<tr>
<td>6.5</td>
<td>MetAware</td>
<td>Collective</td>
<td>Interpenetrative</td>
<td>Illuminated</td>
</tr>
</tbody>
</table>

Figure 1. The STAGES Matrix.

Method

Preplanning for the Research

Ethical research with children as subjects requires parental permission. To accommodate this, our research team (Kim Barta and Terri O’Fallon) prepared a detailed description of our research, honoring the rights of students and their parents. Before we arrived at the school, Jennifer contacted each parent and asked them to sign the permission form for doing the testing. She arranged a protected, locked file with the names of all of the children being tested and the permission forms, that only she has access to. The researchers giving the test to the children would not have access to the children’s identifying information (including parent names).

In the meantime Kim (a psychotherapist that has worked extensively with children of all ages) and I modified our general STAGES inventory to create one that was appropriate for young children. The general inventory has 36 sentence starters each of which the test taker completes. A function is applied to aggregate the scores for each completed sentence into a final score which represents the developmental level ("center of gravity" or "core score") of the test-taker. The standard version of the ego-development test is suited for adults so we looked to see what sentence starters should be replaced with child-friendly sentence starters.
We understood that some sentence starters might be too advanced for the youngest children and yet quite relevant to the older children so we tried to strike a balance between the younger and older children’s needs. 11 new sentence starters were embedded in the general inventory, replacing sentence starters that seemed to not be very relevant to children, for a total of 36 sentence starters. Table 1 shows the new sentence starters in blue. To summarize, we decided to add the following sentence stems: My family, Grandparents, These days, School, My parents and I, A good child, When they didn’t let me join in, Bullying could be stopped if, Children and parents are lucky when, Children who step out of line, A parent has the right to, and A child has the right to. The figure below shows the stems in order of appearance, with the new ones in blue.

**Table 1. 36 Sentence Starters for the STAGES Child Inventory.**

<table>
<thead>
<tr>
<th>1. My family</th>
<th>10. When people are helpless</th>
<th>19. Bullying could be stopped if</th>
<th>28. A parent has the right to</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. When I am criticized</td>
<td>11. What I like to do best is</td>
<td>20. Children and parents are lucky when</td>
<td>29. If my mother</td>
</tr>
<tr>
<td>3. Grandparents</td>
<td>12. A good child</td>
<td>21. I just can't stand people who</td>
<td>30. If I were in charge</td>
</tr>
<tr>
<td>4. These days, school</td>
<td>13. We could make the world a better place if</td>
<td>22. At times I worry about</td>
<td>31. My father</td>
</tr>
<tr>
<td>5. Being with other people</td>
<td>14. The past</td>
<td>23. I am</td>
<td>32. If I can’t get what I want</td>
</tr>
<tr>
<td>6. The thing I like about myself is</td>
<td>15. Privacy</td>
<td>24. If I had more money</td>
<td>33. When I am nervous</td>
</tr>
<tr>
<td>7. My parents and I</td>
<td>16. I feel sorry</td>
<td>25. My main problem is</td>
<td>34. A child has the right to</td>
</tr>
<tr>
<td>8. What gets me into trouble is</td>
<td>17. When they didn’t let me join in</td>
<td>26. When I get mad</td>
<td>35. My conscience bothers me if</td>
</tr>
</tbody>
</table>

**Data Collection**

When Kim and I arrived at the Brisbane school, Jennifer had already arranged for the research process to take place. Since this required an oral test with the children, she set up two private spaces where we could meet with them one by one. Kim and I went to the various classrooms and the teachers were already prepared to send a child with us when we appeared at their door. We engaged with the children on the way to our private spot, creating rapport with them on the way. Once we got settled with the child, we gave them several sentence starters for practice so that they could understand what the task was. These children had no trouble responding to the 36
sentence starters and most appeared to thoroughly enjoy the process. Several children were very shy and wanted to respond to only a few sentences. This was expected and when that happened we simply went onto the next sentence starter until they indicated that they wanted to respond.

Kim and I typed verbatim their responses to the sentence stems. We collected and transcribed this data of 36 oral responses for each of the 53 children, gathered over two days, for a total of 1908 responses.

The School Environment

Kim and I were invited to visit each classroom so that we could see the developmental process of how the children were organized by their developmental level. As well, we spent time with the teachers to see how they related to the children and their teaching practices.

Jennifer went over the curriculum with us to show how she had designed the school as a developmentally friendly environment for the children. This included recognizing when children were in a transformation and ready to move into another classroom. This could happen any time during the school year and provided for a flexible process for the children, honoring where they were in their developmental journey.

Jennifer invited us to her teacher’s meetings so that we could see the curriculum she had created for them as they experienced their own developmental journey. These teachers were very aware of looking at themselves developmentally and understood how their own developmental level affected their teaching.

For the final days, Jennifer had arranged for Kim and I to put on a two day developmental workshop for the parents, teachers and other community members who were interested. This indeed was a vibrant community of well informed and supportive people who were doing their best to help to create a school that would serve their children. These parents were of all economic levels and were quite diverse.

New Score Aggregation Method

Until recently, we assigned the final score to an inventory using the ogive cutoff approach from the Loevinger Lineage. We had translated this approach to the 12 levels of the STAGES model (1.0, 1.5, 2.0,....6.5).

Recently we have begun using a new formula for aggregating the 36 item scores to get a total score (or "core score"). See the article by Tom Murray on our Ogive and Rash research in this issue for details. The new process returns continuous value between 0.5 and 6.5, rather than forcing the score into categories. This "Core Score" is rounded to the nearest 1/10th of a person perspective (e.g. 3.6). Thus it does not "throw away" information as in done in the cutoff categorization method, and its higher granularity helps us to have a more nuanced score interpretation. As described in that paper, one of the advantages of the new method is that it does not confuse "shadow" elements of a completion with the authentically lower levels of complexity as seen in children. This study is the first published research to use this new method. For
convenience in reporting, we will sometimes round off the continuous value to the appropriate whole-level category.

**Data Analysis**

Once we got back to the US, I entered the children’s sentence completion text into our scoring platform and began to score them. I soon realized that the sentence completions of these healthy children were very different from adults that had scored at those levels (including a prison population, and mental health facilities). The typical categories that the Loevinger Lineage had created from adult completions simply didn’t fit with this population of children. For example, a 1.5 adult sentence completion might say “When I am in charge…I would rule the world” while a child would more likely say “…I can’t be in charge – I’m just a kid. My parents are in charge.”

While scoring these inventories, the person perspectives and their paradigmatic definitions were available for analyzing the developmental levels of these 1908 child responses. I worked slowly and carefully with each response, going back and forth between them, comparing them to verify that the three STAGES parameters for each person perspective were honored despite very different responses at each level and between each level. I used the following process for scoring each sentence completion.

1. I scored each completion using the parameters (described below).
2. I compared all of the sentence stems that were scored at the same level to see if any of them seemed to fall prior to or extend later than most of those scores.
3. I rescored these stems and moved back and forth between the meaning making that seemed to lie at each developmental level and also meet the parameters.
4. I checked each completion several times until I was satisfied with the scores.

**Validating the Child Inventory**

Once the inventories were scored I sent them off to our statisticians to get a Cronbach’s alpha to make sure the internal consistency was adequate.

**Table 2. Internal consistency for child protocol stems. N=53 protocols.**

<table>
<thead>
<tr>
<th>Data Subset</th>
<th>Cronbach's alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>All stems</td>
<td>0.88</td>
</tr>
<tr>
<td>Old stems</td>
<td>0.85</td>
</tr>
<tr>
<td>New stems</td>
<td>0.63</td>
</tr>
</tbody>
</table>

**Conclusion:** The overall internal consistency of the child protocols as measured by the Cronbach’s alpha statistic was "good" ($\alpha = 0.88$), according to the table below.
A commonly accepted rule of thumb for describing internal consistency is as follows:*

<table>
<thead>
<tr>
<th>Cronbach's alpha</th>
<th>Internal consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\alpha \geq 0.9$</td>
<td>Excellent</td>
</tr>
<tr>
<td>$0.9 &gt; \alpha \geq 0.8$</td>
<td>Good</td>
</tr>
<tr>
<td>$0.8 &gt; \alpha \geq 0.7$</td>
<td>Acceptable</td>
</tr>
<tr>
<td>$0.7 &gt; \alpha \geq 0.6$</td>
<td>Questionable</td>
</tr>
<tr>
<td>$0.6 &gt; \alpha \geq 0.5$</td>
<td>Poor</td>
</tr>
<tr>
<td>$0.5 &gt; \alpha$</td>
<td>Unacceptable</td>
</tr>
</tbody>
</table>


From this statistic, given 53 participants, we can see the entire inventory with 11 changed sentence starters out of 36, had an internal consistency of .88 (only .02 away from “Excellent”). However the 11 new (“child”) stems by themselves didn’t fare as well, letting us know that we won’t test with only the child stems but will always use the 36 sentence stems with the child sentence starters embedded. This should give us an accurate result. Also, we plan further research on strengthening the new child-friendly stems.

**Results**

Above we described our new method for aggregating survey scores into the final "core score." This, combined with the 1.1 million word study which shows what words tend to come up at each developmental level, helps us make a more nuanced decision in the scoring of each sentence stem, a process of triangulation with different kinds of evidence to support a more accurate score. This gives us the data to support the core stage any person is at. (Our preliminary vocabulary research is summarized in the paper in this issue summarizing all STAGES research to date.)

The test was administered verbally to 53 children at their school in Brisbane, and the audio was transcribed. An expert scorer scored the results, which are shown in Figure 3 as frequencies in histograms at both the item level and the survey level.
Figure 3. Child Study results: frequency histograms.

From the Survey graph we can note that the vast majority of children scored at 2.0, with a few at 1.5, 2.5, and 3.0. From the completions graph we can see that there are also a few item scores as low as 1.0, and as high as 4.0

O’Fallon continues to analyze this data to derive descriptive accounts of how the children make meaning of various themes (later to be published).

Discussion

Most children at the 1.5 Egocentric level range from the ages of about 18 months old to about the age of 4 years old. The 2.0 Rule Oriented level generally begins around the age of 4, and ranges up through around the ages of twelve or thirteen. The 2.5 Conformist level can range from the approximate ages of 12 or 13 through the age of around 19, but we also have many adults at that age. The 3.0 Expert usually ranges from around the age of 18 or 19 though the mid 20’s but can extend far into the 20’s and 30’s and beyond.

Looking at the ranges of these children who were at about the age 4 ½ through the ages of about 13, we can see a healthy distribution with most of the children expressing at the 2.0 level and six younger children who were old enough to be in school but still represented the 1.5 level. However, we also see that 11 children representing nearly 21% of this population, seem to reach into the 2.5 and 3.0 levels and appear to be more developmentally mature than most children in that age range. There could be many reasons for this, including a developmentally appropriate curriculum for the children.

Summary

We have developed an oral sentence completion test for children. This test has very close to an excellent internal consistency using Cronbach’s alpha. We have tested 53 children using this test and that we are now doing qualitative research to uncover descriptions of healthy children at these levels which are mostly populated with healthy children, rather than with compromised adults. This is just a beginning, and we are happy to be on this journey.
Future Research

The next question we are inquiring into is “What are the phenomenological qualities of children at each of these developmental levels?"

To respond to this question we are in the process of doing a qualitative research project. We are categorizing all of the sentence completions at each developmental level into common themes to see if we can locate common identifiers for children at each of these levels.

To date we have done the preliminary categorizations on about 70% of the 1908 sentence completions. We will continue to sift through all of these stems until we have an idea of the themes that describe children at each of these developmental levels. This will take some time and will be well worth the effort.
Investigating the Validity of the Ogive Aggregation Method, Including the use of Rasch Analysis, for the Sentence Completion Test and the STAGES Model

Tom Murray

Abstract: This project assesses psychometric aspects of the STAGES sentence completion test (SCT) using data from 740 scored surveys, and some of the analysis applies to all variations of the SCT for ego development (meaning making maturity). The goals of this research project include: (1) to apply item response theory (IRT) and Rasch analysis to determine item-level psychometric properties of the SCT that were previously unaddressed in SCT research; and (2) to further investigate suspected problems with the ogive cutoff method for aggregating item scores in the SCT and propose alternatives. The psychometric analysis includes: within-test item normality, item standard deviations, test length analysis, factor analysis, characteristics of and correlations among each item, overall test strength, and construct levels discrimination. A range of issues with the standard ogive cutoff method are described, and a new item aggregation method is then proposed.

Keywords: Adult ego development, ogive cutoff, psychometrics, STAGES, sentence completion test.

Executive Summary

This project assesses certain psychometric aspects of the STAGES sentence completion test (SCT) using data from 740 scored surveys, and some of the analysis applies to all variations of the SCT for ego development (meaning making maturity). The goals of this research project include: (1) to apply item response theory (IRT) and Rasch analysis (a subset of IRT) to determine item-level psychometric properties of the SCT that were previously unaddressed in SCT research; and (2) to further investigate suspected problems with the ogive cutoff method for aggregating item scores in the SCT and propose alternatives.

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The paper begins with an overview of the history of the SCT, including Loevinger's original work and variations by Cook-Greuter, Torbert, and O'Fallon. We then describe the STAGES model and assessment in greater detail, highlighting how the model differs from prior SCTs.

We summarize evidence for the psychometric strength of the SCT. Most of the 400+ studies of the SCT were conducted with Loevinger’s WUSCT, but studies of the other variations inevitably replicate results of the general validity characteristics of the test. We summarize prior research on the SCT regarding inter-rater reliability, internal consistency, test-retest reliability, face validity, construct validity, incremental validity, clinical utility, and predictive validity, supporting Westenberg et al.'s conclusion that "findings of over 350 empirical studies generally support critical assumptions underlying the ego development construct" (p. 485).

Specific to the STAGES model, we reference another peer-reviewed paper (O'Fallon et al., 2020) describing a "replication study," which shows that the STAGES scoring method replicates prior (MAP) SCT scoring up to 4.5 Strategist. That paper also summarizes longitudinal data analysis including the upper levels, which shows evidence for the monotonic developmental sequencing of O'Fallon's newly defined highest stages (Metaware Tier).

We next focus on methods used to aggregate the 36 item scores into the total protocol rating (TPR), especially the ogive cutoff method and secondarily the less-used TWS (total weighted score) method. We argue that the ogive method entails a number of drawbacks, including:

1. Lack of empirical support for discontinuous levels
2. No population studies for Bayesian estimates
3. Difficulties estimating extreme values
4. Lower cutoffs confuse development with "shadow" evidence
5. Sensitivity to error
6. TWS misalignment
7. Additional issues with the TWS multipliers
8. Errors in the ogive formula and assumptions

This paper then describes the method and results of our statistical analysis of the 740 STAGES protocols using descriptive statistics, item response theory, and Rasch analysis. Below is a summary of the findings, which hold for levels 2.0 to 6.0, however for the rare extremes of 1.0, 1.5, and 6.5 surveys, there are too few data points for confident conclusions.

1. **Within-test item normality**. A skew and kurtosis analysis shows that scores within each survey are, on average, normally distributed. This does not support the common supposition that the scores’ "bell curve" within surveys would contain more items below the average score than above it.

2. **Item standard deviations**. The average standard deviation of item scores within a survey is remarkably similar across all developmental levels. Thus, the shape of the distribution of the 36 scores within a survey does not change much for individuals at different centers of gravity.
3. **Test length.** A Cronbach-Mesbah analysis (of the Cronbach’s alpha score for successively fewer test stems) shows that for a half-item test the reliability is excellent (.95); that with 10 stems, the SCT has very good reliability (.92); and that at 5 stems the reliability is acceptable (.85). This supports any future projects that use surveys with fewer than the 36 items.

4. **Factor analysis.** A factor/component analysis of the data confirms prior findings that the SCT loads on one factor or in other words seems to be measuring a single latent variable.

5. **Characteristics of and correlations among each item.** We show measures of difficulty (mean score) and spread (standard deviation) for each test item to test the assumption that the SCT test items designed to triangulate (parallax) the construct from many life-contexts are generally equivalent (though they will vary in how they function per individual). The results confirmed in the Rasch analysis show that there is some variation among the items, but overall they have similar difficulty and spread. However, the stem "I am..." stands out as being the least highly correlated with all other stems and as having the highest standard deviation. We also show a heat map illustrating the 36x36 item correlation magnitudes.

6. **Overall test strength.** Rasch and IRT analyses confirm that the test is very robust/sound as a psychometric measurement across its entire range. Test reliability and coverage are excellent and the items have good discrimination. Scoring is highly consistent (i.e., good quality) across the items (similar to prior Cronbach’s alpha results).

7. **Construct levels discrimination.** The test easily differentiates the 6 person perspectives and, consistent with the model's hierarchical organization of 3 parameters, has more difficulty differentiating between levels at the granularity of 12 levels. The 12 stages defined by the model are relatively evenly spaced along the spectrum, which supports O'Fallon's conjecture that the STAGES model cuts the range into equal slices or provides a consistent "ruler" which is resilient to data collected in future studies from different populations.

**New item aggregation method.** Given the problems described for the ogive cutoff method, we experimented with a number of alternative methods for aggregating the survey items. Our goals for a new method were:

1. achieve compatibility with the expectation that for a projective test, a person's true "center of gravity" will be evidenced from the higher scores;

2. avoid the problems of the ogive cutoff method and use something more straightforward and with fewer arbitrary parameters;

3. to minimize the differences between the new method and the prior ogive method, so that we would not have to alter the established interpretation of each level (i.e., to remain consistent with how a "3.5/Achiever" total score is understood in the field).
The methods we tested are described in the paper. In the end we chose taking the mean of the top 6 scores in the survey (or the top 1/6th of the scores if the survey has other than 36 items). This is modified slightly to produce a value that is, on average, close to the original ogive method by using the formula: \((1.2\times\text{AveOfTop6})-1\). We call this value the Core Stage (for continuity with prior articles, note that we originally called it the Focal Score). STAGES International will begin to phase in this method, firstly alongside the ogive method, before eventually replacing it over the next year or two.

The Core Stage regards a continuous value. The benefits of this method include that the value is not sensitive to small perturbations or errors around cutoff boundaries and that it is easily extended to different test lengths without revising the set of cutoffs. Another benefit of this method is that it does not confuse shadow crashes with low complexity/maturity, which is the case with the ogive method, and thus can be used for scoring children (which O'Fallon has begun doing).

The revised scoring system will show several measures in addition to the Core Stage: the average (across all stems); the bottom score (the average of the bottom 6 related to a "shadow score" for adults); and Spread — the spread score is the Core Stage minus the bottom score, which indicates the range of values in the survey.

The final section of the report discusses future work and limitations, which largely pertain to available data.

The STAGES framework will be gradually shifted to the new Core Stage method. We remain agnostic regarding whether other SCT frameworks should adopt this method or any alternative to the ogive method, which has been performing well enough over the years and represents the default standard, and the effort to adopt a new method may well outweigh any benefits. The benefits of changing are greater for the STAGES model vs. other SCT variations, because others use a fixed set of stems while STAGES allows creating valid surveys with new stems of any length – which would require ongoing adjustment of cutoff values that can only be performed in arbitrary ways. In addition, automated computer scoring exists for the STAGES model (see www.stageless.com), which means the SCT will become more practical to use for large-scale research where the validity of methods is more critical.

**Introduction and Background**

**Motivations and Research Goals**

The sentence completion test (SCT) for adult development, originally created by Jane Loevinger and later extended by Susanne Cook-Greuter, William Torbert, and Terri O'Fallon (each developing different variations), is arguably the most thoroughly researched, validated, and used developmental instrument in adult psychology. Loevinger used the term "ego development" for this "holistic" view of personality and cognition that "[sees] behaviors in terms of meaning or
purposes" (Loevinger 1970, p. 3). Ego development has been described using concepts including leadership maturity, perspective-taking complexity, sophistication of world-view consciousness, and "wisdom skills" and has substantial overlap with the construct of meaning-making maturity described in Kegan's construct developmental theory (Kegan, 1998). Kegan describes it as a "consistency in the structure, or order of complexity, of one's meaning-making (i.e. how one thinks)" (1998, p. 55) about the relationships between self, other, and the world (intrapersonal, interpersonal, and cognitive in Kegan's terms; and "I/we/it" in terms of Wilber's Integral Theory (1995)).

Loevinger's theory of ego development was intricately linked to her assessment instrument called the Washington University Sentence Completion Test (WUSCT; Hy & Loevinger, 1989; Loevinger & Wessler, 1970). The literature on the SCT is extensive, and according to an overview by Westenberg et al. (2004), the SCT test has robust psychometric properties with "indicated excellent reliability, construct validity, and clinical utility" (p. 596). They further state that, "findings of over 350 empirical studies generally support critical assumptions underlying the ego development construct" (p. 485), and dozens more studies have followed since 2004 (Torbert, 2009).

The SCT is a "projective" test in which subjects complete sentence starters and respond freely without a need to produce a "correct" or superior answer – which the theory claims affords the test analyst a deeper view into tacit or unconscious psychological traits. The standard SCT has 36 sentence starters ("stems") such as "Raising a family..." and "When people are helpless..." which the test taker completes (e.g., "...is a joy", "...they get taken advantage of") and are rated independently. Sentence completions vary from a few words (even one word) to full paragraphs (and rarely multiple paragraphs). Rather than a simple sum or mean of the item scores, the TPR score uses a more complex cutoff method called the "ogive method" for reasons we describe later. This converts a complex continuous score into one of a set of discrete categories (levels or stages: 8 for Loevinger's model, 9 for Cook-Greuter's and Torbert's models, and 12 for O'Fallon's model).

Despite the depth and breadth of the SCT instrument and its psychometric strength, assessments of its validity all (as far as we can tell) have used "classical test theory" and focused on the validity of the assessment as a whole (i.e., the TPR). There has been little focus on its per-item psychometric properties besides the internal consistency of the items (the Cronbach's alpha measure). Although it is still widely used due to its robustness in most contexts, classical test theory has been superseded in the last half century by item response theory (IRT) psychometric methods, which include a deeper analysis at the item level of the test. The present study applies IRT (and Rasch analysis) to SCT data to gain insights about the properties of the SCT. More importantly, the ogive method for aggregating item scores has been largely taken for granted and simply re-used in the hundreds of studies using the SCT, despite some limitations of the ogive method.

2 Browning (1987, p. 113) describes ego development in terms of "a series of developmental stages that are assumed to form a hierarchical continuum and to occur in an invariant sequence...[that describes a] person's customary organizing frame of reference, which involves...an increasingly complex synthesis of impulse control, conscious preoccupations, cognitive complexity, and interpersonal style."

2
In this paper we describe limitations and some potentially serious problems with the ogive method and suggest an alternative method for aggregating the test items. One problem with the ogive or any cutoff method, or indeed any method that forces continuous phenomena into discrete values, is that they are sensitive to small variations and noise near the cutoff points. For example, a cutoff rule that assigns a TPR of "achiever" if 10 or more of the 36 items scores are at or above the achiever level is fragile for surveys that have 9, 10, or 11 such scores. In this range, if the score had just one or two more or fewer items at the achiever level due to rater error or inter-rater variation or an arbitrary glitch in the subject’s thinking when taking the test, the score would jump an entire developmental level.

These issues are unlikely to impact the vast majority of the hundreds of published studies that use the SCT method, especially those with medium to large sample sizes. Small "random" variations that cause the TPR to "flip" up or down a level will "wash out" in statistical aggregations. Such issues might be more important for case studies and other small-N studies, where a single level difference in a couple of TPR scores could change the conclusions. Beginning with Cook-Greuter and continuing with Torbert and O'Fallon, the SCT is increasingly used to provide developmental scoring and coaching/consulting advice to individuals (something Loevinger strictly avoided). It must be said that all three of these researcher/practitioners and their associates are careful not to allow the use of the SCT for high-stakes assessment decisions such as hiring and firing (to the extent possible) but instead use it as a tool for self-reflection and personal growth (for individuals but also for teams and organizations). Nonetheless, the sensitivity of the cutoff method to perturbations is concerning since the characteristics of, and thus the advice given for, each developmental level is distinct (i.e. adjacent levels such as Expert and Achiever differ significantly along many dimensions).

The research in this paper was executed in an attempt to validate and improve O'Fallon's STAGES variation of the ego development theory and assessment, yet some of our conclusions concern the entire SCT lineage (other results apply only for the STAGES model). STAGES represents the most recently developed model in this lineage and differs from others by proposing a small set of underlying "drivers" or parameters (i.e., underlying mechanisms) purported to explain most or all of the surface features of the spectrum of meaning-making development. The research goals addressed in this report include:

- To further investigate suspected problems with the ogive cutoff method for aggregating item scores and to propose alternatives;
- To apply IRT and Rasch modeling to determine psychometric aspects of the STAGES SCT that were previously unaddressed in SCT research, including:
  - An item-based determination of overall test strength (including factor analysis and reliability);
  - Item-based analysis to identify items that behave differently than others or have sensitivity to particular regions of the developmental spectrum;
  - Test-length analysis to determine the validity of shorter versions of the SCT;
  - Scale uniformity and resolution to determine whether the categories (stages) in the model are relatively uniform and well differentiated;
To assess other statistical properties of the measurement, including the skew and kurtosis metrics, indicating whether the spread of items in the surveys is normally distributed (on average).

**Project Beginnings**

There were two initial motivations for this project. First, O'Fallon's statisticians suspected some fundamental errors in the assumptions behind the ogive cutoff method for aggregating the (36) response scores used to produce the total survey score (TPR) traditionally used in Loevinger-lineage sentence completion tests. One goal was to clarify these issues and identify alternatives to the ogive method.

Second, the main alternative framework to STAGES and other SCTs include the Lectica assessments (based on hierarchical complexity theory (HCT), see Commons et al., Dawson et al., and Fischer et al.), and research in this lineage uses Rasch modeling for evaluating psychometric validity. Rasch analysis is considered by most to be a subset of IRT methods, and IRT methods represent a more robust and modern set of methods than the classical test methods Loevinger chose over 30 years ago and continue to be used with the SCT. One of our goals was to upgrade methods to more modern techniques and also to determine whether IRT can shed light on how to replace the ogive aggregation method.

Over the course of this research, Murray engaged the assistance of many professional statisticians/psychometricians. Each result shown here was read and approved by at least two of these experts, although consultant reviews regarded checking that the methodology fit the context and conclusions and none checked the actual data processing steps (i.e., the author is wholly responsible for any such errors, and none of these consultants can be said to have vetted and agreed with this report in its entirety and full detail). We would like to thank the following for their help at various stages of the project: Matt Johnson – Columbia University faculty in psychometrics and statistics research; Trevor Bond – faculty at James Cook University and lead author of *Applying the Rasch model: Fundamental measurement in the human sciences* (Bond & Fox, 2001; Bond, 1994); Bob Dolan – a psychometrician in the field of educational technology who has worked for several publishing and research companies; Mike Linacre – psychometrician and developer of the WINSTEPS software package for Rasch analysis; Larry Price – Texas State University Professor and author of *Psychometric Methods: Theory into Practice*; and Moni Blazej Neradilek and Nayak Polissar – lead statisticians at Mountain-Whisper-Light Statistics, the company O'Fallon uses for much of her work on the STAGES model.

Part of this work was funded by the Developmental Research Institute (DRI), a registered non-profit research organization founded originally by Terri O'Fallon, Suzanne Cook-Greuter, and others, which is currently lead by O'Fallon, John Kesler, Venita Ramirez, and Judy Stevens Long. Although the mission of DRI is to further research adult developmental assessment and theory in general, we acknowledge that most of its board members have close affiliations with

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3 Kegan's model is also predominant in the field, but its assessment method, the subject-object interview, is much less frequently used, because it is much more time consuming to both administer and score.
O'Fallon, as does the author, and that there may be some unintentional bias toward the STAGES model in the reported research.

**SCT History**

Below we describe the evolution of the SCT and compare its various versions to illustrate their significant similarities for two reasons: to argue that (1) many conclusions made in this study with STAGES assessment data will apply to other SCTs; and (2) prior research using the WUSCT, which constitutes the vast majority of the roughly 400 studies on the SCT, applies to the other SCTs.

The SCT for adult development originally developed by Jane Loevinger was later extended by Cook-Greuter and associates, Torbert and associates, and O'Fallon and associates. Although Loevinger remained an academic, the others branched out of academia to start companies that engage in developmental assessments, organizational consulting, and consultant trainings (Torbert works both in academia and industry consulting). Cook-Greuter was a student of Loevinger and Torbert was one of her dissertation advisors, and both Torbert and O'Fallon were at various times working as business colleagues of Cook-Greuter, who is currently a principal at Vertical Development Academy; Torbert worked at Harthill Consulting for 20 years and then founded Global Leadership Associates with Elaine Herdman-Barker; and O'Fallon is co-founder at STAGES International. All four of these organizations continue to work with the SCT and, as far as we know, represent the only organizations that currently provide scoring of and certification in the SCT. Vertical Development Academy calls their SCT "MAP," Harthill Consulting calls theirs LDP, Global Leadership Associates calls theirs GLP, and STAGES International calls theirs STAGES (Torber et al. 2009, 2014 describes validity research on MPA, GLP, LDP).

Loevinger's model and assessment was extended in three ways by those that followed her: (1) the underlying psychological theory evolved, (2) the STC itself was altered regarding the number and selection of stems, and (3) the analysis method defined in a "scoring manual" also evolved.

In terms of the SCT instrument, MAP and the "general protocol" of STAGES use 36 stems, following Loevinger, while LDP and GLP contain as few as 24 stems. Although each SCT variation has altered some of Loevinger's original sentence stems, all share at least 75% of the stems with the original WUSCT and with each other. Although Loevinger and other researchers using her methods have validated and used an 18-item ("split half") variation of the SCT (see Novy & Francis, 1992; Holt, 1980), the short version is not used for the individual scoring currently done by the others. However, O'Fallon has been developing and validating "specialty" protocols with both varied lengths and 6 or more stems from the "generic" SCT replaced by stems focused on specific themes (e.g., love, money, spirituality, etc.). The research reported here utilizes the STAGES generic protocol.

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4 See Torbert 2014 for a detailed comparison of the MAP, GLP, and LDP variations of the SCT. Torbert and Cook-Greuter modified the WUSCT stems to "omit a number of gender-based items and, includes work or leadership-related stems" (Torbert & Livne-Tarandach, 2009).
In terms of the theoretical model, Cook-Greuter extended Loevinger's system by differentiating two stages (which she called Construct Aware and Unitive) within Loevinger's final stage (a model also used by Torbert and associates). O'Fallon's research has taken this progression further by differentiating four stages (5.0, 5.5, 6.0, and 6.5) within the same late-stage territory. O'Fallon also differentiated the Conformist (or Diplomat) level into two levels based on theoretical principles along with her other modifications. (Thus, STAGES defines 12 levels, MAP/GLP/LDP defines 9, and WUSCT defines 8). All of the scoring methods have procedures for marking a developmental stage as early, middle, or late, so the potential number of "strata" or sub-stages has a finer resolution. Although the early/late distinction is used in qualitative consulting with the client, for the research reported here all score data regards the per-stage resolution (i.e., early/late designations are not used).

Cook-Greuter attempted to address her notion that Loevinger’s model was "lacking an underlying structural logic" (1999, p. 76) by linking the sequence of stages to "person perspectives" (p. 77) (e.g., first-person perspective, second-person perspective, etc., sometimes referred to as worldviews). This strengthens the ego development construct from a "soft" description-based construct towards a "hard" model-based construct, which provided a coherent theory that could support the entire developmental trajectory using a single concept (pp. 72–76). However, this change was applied only to the conceptual description of the model rather than to the scoring methodology. O'Fallon extends this innovation by more fully integrating the concept of person-perspectives into both the theory and the scoring procedure.

A scorer using the WUSCT, MAP, GLP, or LDP tests consults a scoring manual comprising thousands of example sentence completions organized by stem, level, and theme. The scorer attempts to match a sentence completion with an example or thematic group of examples, and if no match can be found, more general heuristics defined for each level (independent of stem) are used. Westenberg et al. (2004a, p. 485) note that "the scoring manual for the [WUSCT] consists of over 2000 response categories...about 80 response categories for each of the [...] items." The 300+ page scoring manuals used for the MAP, GLP, and LDP contain 16,000+ examples, and training to score from the requires many months and close supervision until acceptable inter-rater reliability is achieved (vs. a maser scorer). For the two highest levels added by Cook-Greuter, scoring relies more on heuristics than exemplars (the method is used for the MAP, GLP, and LDP).

While all the other methods follow Loevinger in using an exemplar-based scoring method, the STAGES model differs by basing its model and scoring method on an underlying quasi-causal model that applies a repeating pattern using a small set of foundational parameters. The scoring procedure (the manual) is thus stem-independent and does not rely on exemplars but on underlying language properties and structures.

The STAGES Model

Although the example-matching method was chosen by Loevinger, it entails drawbacks. Because human language is diverse and expressive and there are so many ways that an individual at level X could respond to stem Y, it is quite time consuming to add new levels or sentence starters, which requires the collection and validation of excessive amounts of data to define
exemplars and heuristic rules (e.g., see Minard, 2009; Cook-Greuter (1999)). For scorers, matching to exemplars can be tedious and time consuming, and these issues motivated O’Fallon to develop an alternative theoretical and scoring framework. Following years of scoring experience using the MAP framework and using insights sourced in Ken Wilber’s Integral Theory (the AQAL model, 1995), O’Fallon proposed that a small set of underlying parameters could be used to explain (and score) the entire developmental sequence. This idea, in its final form after several iterations, has proven to be a valid method to understand and assess ego development.

STAGES defines 12 developmental levels (stages) in three tiers (Concrete, Subtle, and Metaware) with each four levels each. The levels in each tier progress through a sequence of four learning-and-acting orientations: Receptive, Active, Reciprocal, and Interpenetrative. The sequence is also defined as progressing through 6 ”person perspectives,” each of which has an early (passively oriented) and late (actively oriented) phase. The STAGES are thus identified as 1.0, 1.5, 2.0, 2.5...6.5, where the ”1.” to ”6.” reflect the six person perspectives and the ”.0” and ”.5” reflect the early and late phases of each person’s perspective. Appendix 2 contains figures illustrating the STAGES levels, and for a detailed description of the STAGES model, see other articles in this journal special issue and material at stagesinternational.com.

Because it does not rely on exemplars but rather on underlying language properties, it is much easier to create modifications to the STAGES SCT compared to the other variations. The same scoring heuristics are used regardless of the sentence stem, and new stems can be added to the SCT without the need to conduct extensive research into how people might respond to the prompt. O’Fallon has developed several ”specialty protocols” using alternate sentence stems, and in each case the internal consistency of the SCT remains high. In addition, because it is based on language properties rather than specific exemplars, STAGES is less susceptible to drifts in word meanings over generations and should be easier to apply to multiple languages. Finally, using generic theory-based scoring rules allows the method to be extended beyond the SCT to preform developmental analysis on arbitrary texts such as reflective essays, story narratives, speeches, and books (O’Fallon has applied the method to such texts, but we lack validity studies on these novel applications). (Note that, despite the notes above on the flexibility of the STAGES for creating alternative SCTs, the studies reported in this paper regard the standard-length ”general” protocol, which has significant overlap with the stems of the other SCT variations.)

STAGES is also a fully ”hard” stage theory in that its stage boundaries are determined by theoretical rather than empirical or practical considerations. The number of stages and their boundary lines changed several times during Loevinger's work, and Cook-Greuter made additional modifications based on empirical or pragmatic reasoning. Loevinger and Cook-Greuter explicitly chose a data-driven rather than theory-driven foundation for the ego development model, meaning they wanted the model to be driven by real observations rather than by assumptions imposed by an abstract theory. It is however difficult to claim that one has the correct or best stage definitions under such circumstances.

Data-driven methods are best for new and emerging theories, but at some point theory-driven approaches become feasible when enough is known to propose a stable set of underlying mechanisms that give rise to surface features of the data (the neo-Piagetian developmental
models of Commons and Fisher are also theory driven). The number, sequence, and boundary conditions of the STAGES model directly originate from its theoretical assumptions and will not change any time soon. Of course, science evolves through an iterative dance between theory (ideas) and evidence, and even set-in-stone theories must be occasionally re-evaluated in light of new data. O'Fallon readily acknowledges that a day will come when STAGES is superseded by another model – personal communication.\(^5\)

The above paragraphs describe how STAGES differs from other SCT variations, including its purported benefits. Although this allows coordinating the results of our study with other SCT variations, it is important to note that for the purposes of the study reported here, STAGES is largely similar to its predecessors.

The first proof of this is argued in detail in "The Validation of a Novel Method for Assessing Developmental Stages of Meaning-Making Across the Life Span" (O'Fallon et al., 2020), which reports on a "replication study" of its concurrent validity showing that, for stages up to 4.5/Strategist, scoring with the STAGES scoring methodology correlates exceptionally well with Cook-Greuter's MAP method (and presumably the other SCT variations which are more similar to MAP). For stages above 4.5/Strategist, the definitions of levels diverge too much and there is insufficient data available to perform a proper comparison. However, from Cook-Greuter (2013), we can estimate that approximately 2% of the population or 7% of professionals are above the 4.5 level, so the replication results apply to the majority of people.

Second, it can be argued that the SCT has strong reliability as a methodology regardless of the mentioned variations.\(^6\) This was reported in "The STAGES Specialty Inventories: Robustness to Variations in Sentence Stems," where O'Fallon created about six specialty protocols with alternative sentence stems. These all show high internal consistency via the Cronbach's alpha measurement, indicating that the SCT method is robust over many possible sentence stems (assuming they are rationally designed). In addition, as illustrated later in this paper using a "Cronbach-Mesbah curve," the SCT continues to have strong consistency even for 10 stems (.92), and even at 5 stems the metric is good (.85). In addition, the IRT and Rasch analysis reported later shows that all the 36 stems but one are strongly correlated with each other.

This all indicates that the SCT is a strong and valid methodology regardless of its variations and that certain results from one variation should be applicable to others. This claim weakens for

\(^5\) We should also note that, because the scoring rules (manuals) are different, the territory for each level defined by the STAGES model need not map exactly onto the same territory in the prior models. Our understanding of the psychological and cognitive characteristics of each developmental level contains many aspects (e.g. ability to utilize feedback, use of either-or vs. both-and language, and how past and future are conceived), and persons identified at level X in STAGES may, on average, have slightly different characteristics vs. persons identified at that same stage in another model. What has been empirically demonstrated (O'Fallon et al., 2020) is that, with all of these characteristics taken together as a whole to describe each ego development level, the STAGES model tracks very well with the other models (up through 4.5/Strategist).

\(^6\) Statistical reliability refers to the consistency of a measure, i.e. whether it produces similar results under consistent (accurate, reproducible, and consistent) from one testing occasion to another, having acceptably small random errors. Overall reliability can include inter-rater reliability, test-retest reliability, and internal consistency.
developmental levels at the upper and lower extremes where there is less empirical data and more tentative theoretical understanding, but we do not yet have a sense regarding how much it weakens.

**Prior SCT validations**

The literature on the SCT is extensive and includes over 40 years of meta-analyses and critical overviews, substantially supporting its validity and usefulness (see Cohn & Westenberg, 2004; Manners & Durkin, 2001; Holt, 1980; Novy & Francis, 1992; Jespersen et al., 2013; Westenberg et al., 200b; Forman, 2010). The paper "Sentence completion assessments for ego development, meaning-making, and wisdom maturity, including STAGES" (Murray, 2017) contains a lengthy summary of such studies, illustrating the validity and reliability of the SCT and confirming Westenberg et al.'s conclusion that "findings of over 350 empirical studies generally support critical assumptions underlying the ego development construct" (p. 485).

Blumentritt (2011, p. 153) says that "more than 1,000 articles and book chapters have been published examining nearly every conceivable aspect of the construct and measurement of ego development," overall showing "substantial support" for the theory and measurement. Most of these studies are based on the WUSCT, but some use the MAP/GLP/LDP variations. For the reasons given above, we claim that these results apply to STAGES as well, and results of the meta-analyses include:

- "Psychometric studies of the WUSCT...invariably report high levels of inter-rater reliability" (Westenberg et al., 2004a, p. 603; and see Torbert & Livne-Tarandach, 2009 for strong results on the MAP, GLP, and LDP; and O'Fallon et al., 2020 for strong IRR on STAGES).

- "The WUSCT [displays] high internal consistency: Most studies report a Cronbach's alpha of .90 or higher" (Westenberg et al., 2004b, p. 693; and see Torbert & Livne-Tarandach, 2009 for strong results on the MAP, GLP, and LDP; and later in this paper for strong internal consistency in STAGES).

- "In terms of test–retest reliability, when sufficient time is allowed between the two tests to allow for motivational effects, significant correlations have been found between test and retest scores" (Manners & Durkin, 2011, p. 545).

- "The face validity of the SCT is demonstrated by the sheer fact that it has been used in more than 300 research studies [including] such diverse topics as parenting behaviors, managerial effectiveness, and the effects of meditation on recidivism rates" (Phaffenberger, 2011, p. 10).

- The SCT has "excellent reliability, construct validity, and clinical utility" (Westenberg et al., 2004a, p. 596).

- Longitudinal studies have confirmed the sequential invariance of the developmental steps (i.e., no stage can be skipped) (Loevinger, 1998).
The SCT has incremental validity over IQ and SES measurements (e.g., Browning, 1987; Cohn & Westenberg, 2004);

The SCT has proved applicable in different countries, cultures, and languages (see Carlson & Westenberg, 1998).

Although there have been fewer studies on the predictive validity of the SCT, Vincent notes that "a growing body of studies is showing associations between increasing consciousness development and better leadership performance and organizational outcomes" and cites a substantial 21 articles in this regard (2015, p. 2). Other indications of predictive and external validity can be found in (Torbert, 2014; McCauly et al., 2006; and Harris, 2005).

Torbert (2014) summarizes a number of studies on the MAP, GLP, and LDP instruments that arose after the WUSCT.

Our study adds to these findings about the SCT (confirming a few of them) and focuses on two areas that have been under-researched: item-level statistics and methods for aggregating the SCT items into the overall score.

The Ogive and TWS Aggregation Methods

How to calculate the overall score of the SCT turns out to be a complex question. One reason is that participants are expected to exhibit a range of developmental levels in their answers. In a projective test the subject is responding freely, rather than trying to score as high as she can, and it is actually viewed as more healthy or well-rounded when responses range over at least 3 or 4 levels (however for individuals at low developmental levels there is less room to range over). A survey with all items within a tight range of 2-3 levels is not only unusual, but it is considered possible evidence for a rigid personality style.

Most psychometric tests take the simple sum or mean over their items, although sometimes the items are weighted according to difficulty or information power. This is however not a particularly satisfying method for the SCT. For a projective test where the subject is not attempting to "answer" or "solve" anything, some items may demonstrate the subject's true competence while others may naturally be more "off the cuff," meaning short and simple, playfully carefree or irreverent, or even impulsive or unreflective "outbursts." Our intuitive understanding of the construct and the test seems to demand that we focus on the highest scores that the subject produces.

For example, if someone attains a score of, say, 4.5/Strategist level on 8 of the 36 items, then they must have a strategist level of meaning-making, because according to both the theory and empirical evidence, it is difficult to "fake" or "guess" items to produce a score higher than one's actual developmental level (Redmore, 1976). Whether the other scores on the test are near 4.0/Pluralist or 2.5/Conformist does not change the fact that they seem to have achieved a 4.5 developmental level. However, having the rest of the scores at 4.0 vs. 2.5 does strongly affect the
average or sum of the items. One of the justifications for using the SCT cutoff method is that it prioritizes higher scores (or more accurately scores that are rarer within the population).

Within the Loevinger tradition there are two established methods for aggregating the 36 SCT items to obtain an overall score for the survey: the ogive and the TWS. The most commonly used by far is a cutoff method called the ogive method (yielding the total protocol rating, or TPR, sometimes called "center of gravity"). In the ogive method, one follows a procedure to check each level in turn to determine whether there are sufficient scores at or above that level. The ogive cutoff method essentially "throws out" data beyond the cutoff. According to Cook-Greuter (1999, p. 222), "One thus rates a test at the highest stage that is exhibited if enough evidence at that stage is present and not enough at the next higher level." The cutoff number varies over the levels, as detailed in Appendix 1.

Holt et al. describe Loevinger's reasoning: "Human development has this odd, psychometrically inconvenient property of maintaining the potentiality to respond on many lower levels after one has, in a certain sense, left them behind. The ogive rules respect this peculiarity and allow for it" (Holt et al., 1980, p. 917). Cook-Greuter says the ogive (or center of gravity score) "is assumed to reflect a person's most ego-syntonic and habitual frame of reference or preferred mode of responding to life."

The other aggregation method which is usually calculated along with the ogive, but is much less frequently used regards the total weighted score (TWS) method, which sums the scores over the 36 items and returns an integer typically in the 300-600 range. The formula used for STAGES is: \( f_{1.0} \times 2 + f_{1.5} \times 3 + f_{2.0} \times 4 + \ldots + f_{6.5} \times 13 \), where for example \( f_{1.5} \) is the count (frequency) of completions scored at 1.5. There are slight variations on the constants used in this formula for different frameworks.

The ogive method is preferred because Loevinger believed that its categorical result is more meaningful and has more construct validity compared to the TWS method. The theoretical model, the scoring manual, and the scores assigned to individual completions are all based on a sequence of discrete categories. Researchers in the psychological and social sciences almost universally acknowledge that psychological phenomena are complex and that using discrete
categories involves substantial simplification which is thus performed for practical reasons. There is considerable debate within the developmental psychology community regarding whether development occurs continuously or in spurts that create quasi-discrete levels or stages (see Dawson et al., 2005 for some evidence of discrete spurts). However, no research has tested whether the construct of ego development actually grows continuously or in spurts, so the use of categories rather than a continuous scale represents a practical and/or theoretical decision but is unsupported from an empirical perspective.

Although the discrete ogive measurement is predominantly used, the continuous TWS measurement is sometimes used for comparative, pre-post, or longitudinal studies since it is more sensitive to small changes. It can require years for individuals to change one developmental level if they do at all.

The ogive cutoff values are theoretically or conceptually inspired by Bayesian probabilistic principles (Lee, 2012) and concern how much information is needed to conclude that a person is at level X with for example 95% confidence.10 (95% is usually chosen as the confidence factor to use.)

As noted in Appendix 1, the cutoff procedure begins with the top level and proceeds to check each lower level until 3.0/Expert, at which point it switches to testing the lowest level and works its way up to 2.5/Conformist (the same method is used for Loevinger and Cook-Greuter with slightly different stage sequences compared to STAGES). This follows the principle of first checking for the least likely possibilities. The 2.5/Conformist level was determined to be the "average" or most frequent level (the "prior probability" in Bayesian terms), and thus the final step of the procedure selects 2.5 as the default "if there is not sufficient evidence for any of the other levels." It is the "default" level i.e. the one guessed given no other information.

Note that in actual scoring for clients according to both the STAGES method and the earlier WUSCT and MAP methods, the analyst can adjust the final total score based on global subjectively determined factors. An ogive score, especially one on the edge of a cutoff value, can thus be tweaked up or down a level given sufficient evidence from considering the big picture over all stems (remember that each stem is scored by itself without influence of other stems or the whole). Our analysis estimates that this TPR adjustment is performed less than 10% of the time.

Problems with Ogive and TWS Aggregation Methods

Here we arrive at one of the main purposes of our present study. The ogive method has several drawbacks and even seems to include some errors within the assumptions used to determine the cutoff numbers. Given the large number of studies using the SCT, the ogive method for accumulating items is surprisingly rarely if ever questioned or analyzed. One reason for this may concern the large number of studies in the field, as one wants to build upon and be able to compare results with prior studies, and questioning foundational assumptions of a well-established framework might appear counterproductive to many research goals.

10 Based on the idea that, as in medical diagnosis, the rarer a symptom, the greater its predictive power.
We will mention problems with cutoff methods and problems specific to the ogive cutoff method, specifically:

1. Lack of empirical support for discontinuous levels
2. No population studies for Bayesian estimates.
3. Difficulties estimating extreme values
4. Lower cutoffs confuse development with "shadow" evidence
5. Sensitivity to error
6. TWS misalignment
7. Additional issues with the TWS multipliers
8. Errors in the ogive formula and assumptions

**Lack of empirical support for discontinuous levels.** The cutoff method forces survey scores into discrete categories, but there is no evidence that ego development grows in discontinuous spurts. One of the leading researchers using the SCT notes:

>The ogive rules are ingenious procrustean devices to make gradual transitions look like phase changes, translating continuity into discontinuous types. Naturally, therefore, at the borderlines, scoring gets much more unreliable... Furthermore, since these rules put special emphasis on the few most extreme scores, [the total scores] become even less reliable the farther we get from the center of the distribution of the population. (Holt, 1980, p. 918)

**No population studies for Bayesian estimates.** A problem with the cutoff method is that, based on Bayesian probability concepts, it makes assumptions about the overall population, which entails three problems:

1. In fact there are no large scale (population-scale) studies using the SCT (in part because it is time-consuming and thus expensive to score). Loewinger's estimate of Conformist as being the average (i.e., the prior probability) was an educated guess based on a number of studies (each with subjects in the hundreds at most), however many of these studies regarded populations such as pregnant mothers, prison populations, and others with below-professional educational or socioeconomic status. This may be a reasonable guess for the average U.S. population, but the modern uses for the SCT predominantly concern professional or self-improvement contexts where "leadership skills" and "self-reflection skills" are considered important. Articles by Cook-Greuter, Torbert, and O'Fallon have tried to estimate the percentages of each developmental level within specific populations such as the general population, college-educated, professionals (managers), and consultants (see Cook-Greuter, 2002; Torbert & Livne-Tarandach, 2009), but none of these are based on random samplings of populations.

2. Within any specific population, the base estimates ("prior probabilities") will differ, and thus the Bayesian assumptions differ and therefore the cutoffs should ideally be modified, but this is never performed. In practice, the lower and middle cutoff numbers, including the procedural "switch-over" after 3.0/Expert from checking downward to checking upward, are never modified. This is probably because one desires results to use standard methods and to be comparable with past research in the field. In addition, gathering
enough data in any sub-population to determine the proper new cutoffs is usually prohibitively difficult.

3. Several sources indicate that the population as a whole becomes more sophisticated over time, suggesting that the base rates should evolve over the decades. This factor is also ignored when retaining standard ogive cutoffs.

**Difficulties estimating extreme values.** The Bayes-based method for determining the ogive cutoffs (details in Appendix 1) is particularly problematic near the upper and lower extremes or for the rarest scores. Loevinger says, "The rule is not helpful at extreme ratings. However, the number of cases per category at the extremes is so small that theory or intuition is a more reliable guide" (p. 121). Cook-Greuter (1999) says:

> Employing Bayes' theorem for the problem of determining cut-off numbers at the high-end was a creative move by Loevinger at the original time...On the other hand, I found Bayesian reasoning alone inappropriate at the upper end...Therefore, I felt that cut-off numbers needed to be related to the actual number of post-autonomous responses observed...rather than merely based on probabilistic calculations. (p. 228)

Cook-Greuter chose stricter cutoff criteria for the top levels compared to Loevinger and notes that the question of "how many pieces of evidence one requires to draw a conclusion, is a necessary step. It is also arbitrary – arbitrary not in the sense of random or capricious, but in the sense of arbitrated, reasoned, deliberated" (p. 224).

The populations of interest in many contemporary assessment projects are in or near what Loevinger considered the "extreme" of the upper end, and thus these problems are central to modern assessments rather than being relinquished to rare occurrences. Cook-Greuter and associates have recently adjusted their cutoff values and no longer rely on Bayesian reasoning (personal communication) but continue to use a similar cutoff scheme, which is thus expected to include most of the issues mentioned here. When adding three new levels to the scheme for the STAGES model, O'Fallon had to take an educated guess for the cutoff numbers of these new levels (each of which split a prior level in half).

Most statistical metrics involve some quasi-arbitrary parameter or parameters (e.g., when using p-values to estimate statistical significance, the significance cutoff alpha is chosen as 5% or 1%, etc.). However, the degree of arbitrariness in the ogive method is considerable given the methods for determining the cutoffs and the fact that there are at least as many such arbitrary parameters in the method as there are levels.

**Lower cutoffs confuse development with "shadow" evidence.** The scoring rules, including the examples given in the scoring manuals used for WUSCT and MAP, seem to confuse the immature development of ego with "shadow-crashes" or momentary regressions to lower ego levels that may be triggered based on the subject of the stem. Because the levels 1.0/Impulsive and 1.5/Opponentist are "rare" in normal adult populations, they are checked before 2.0/Rule-oriented and 2.5/Conformist in the ogive rules (see Appendix 1). A person needs only 7 of the 36 stems rated at 1.0, 1.5, or 2.0 to have their center of gravity (TPR assigned to those levels
respectively. Achieving such a low rating can result from a simplistic one-word answer but it can also result from a seemingly narcissistic or impulsive answer, including the use of vulgarity or mentioning of violence. We argue that the scoring method confuses actual level of development with "shadow crash" phenomena for lower-level responses.

For example, a person may have 19 stems at 3.5/Achiever yet will achieve an ogive score of 2.0/Rule-based if they have only 7 stems at 2.0 or lower, and such a person's center of gravity should clearly be closer to 3.5 than 2.0. Because there are very few people with a center of gravity below 2.5 in the populations that currently use the SCT, this problem has not been salient, however one area where it is limiting regards studying children. O'Fallon wants to use the STAGES model (and has already collected data) for pre-adult populations, and in such cases one desires a more reliable measure of ego development that is not conflating emotional outbursts or "triggered" responses with simply lower levels of ego development (perspective taking).

These problems of conflating maturity with shadow in the lower levels represent an additional reason for transitioning from the cutoff system. This suggests having separate measurements for developmental level (e.g., a sum or average score like the TWS) vs. a shadow-related measurement (e.g., counting the number of low-level, more impulsive, or reactive scores). We later propose such a system.

**Sensitivity to error.** As mentioned by Holt, surveys with score counts near the cutoff levels are particularly sensitive to error introduced by random or uncontrolled factors, including scorer variability. For example, if the cutoff for some level is 10 items and a survey has 9, 10, or 11 items at that level, then a small difference in item scores such as due to scorer error or to a person not expressing themselves "at their best" in the moment of completing the stem would have resulted in bumping the total score to a higher or lower developmental level. Each developmental level has a significantly different description than its neighbors, so this small difference can create a large change in outcome. (O'Fallon often scores to an extra level of detail to ameliorate this issue by specifying early, mid, or late within the stage, but most trained scorers do not perform this.)

**TWS/ogive misalignment.** The cutoff method produces unsystematic alignment with the TWS (or any linear item aggregation), making them difficult to compare. See Figure 1, which plots TWS vs ogive values for each survey in the STAGES database (described in the Methods section; the TWS vs ogive graphs for all of the SCT variations will have similar properties). For example, at TWS=260 (red horizontal line) there are three possible ogive
values, and for an ogive value of 3.5 the TWS scores range from approximately 210 to 265. Since the TWS is a straightforward linear sum (see above footnote) of the scores, it corresponds to a more traditional and scientifically understood measurement. Scoring manuals include rough advice on how to compare TWS and ogive scores. Loevinger (1998, p. 26) includes a table with TWS ranges such as E4 conformist > TWS 146-162; E5 Self-aware > TWS 163-180; E6 Conscientious > TWS 181-200. It is problematic that the ogive has such a complicated mathematical relationship with the more basic, intuitive, and standard summation statistic used in most psychometric research, and this peculiar behavior is a direct result of using arbitrary cutoffs at each level.

Additional issues with the TWS multipliers. The progression of weights used for the standard SCT TWS calculation is somewhat arbitrary as well. In the MAP system, the lowest frequency is multiplied by 2 and the next by 3, etc., with the multiplier increasing by one per level (see Appendix 1), which makes the TWS very nearly like a summation but not exactly the summation of the items. The integer progression of multipliers assumes an equal separation between each level. However, because Loevinger and Cook-Greuter occasionally modified the stage number and boundaries of their models based on data-driven and pragmatic factors, essentially changing the "joints" in how the spectrum was "cut," this assumption cannot be made.

Nothing in the theory or data analysis could address the issue of equal spacing between the levels, and thus the TWS multipliers remained arbitrary and kept shifting. With the insertion or collapsing of a level, the TWS multipliers are re-set. For example, they might still increment as in 2,3,4,..., but these multipliers could correspond with different levels in any revised system, which made revised TWS values incompatible with prior results. We replace the ogive cutoff with a system that uses sums/averages in a way that does not have arbitrary multipliers and will not have to be modified as the model/theory evolves. We also show the analysis of equal spacing in the STAGES levels.

Errors in the ogive formula and assumptions. Several of our statisticians (Dolan, Johnson, Polister, and Blazej-Neradiek) have pointed to fundamental flaws in the reasoning behind the equations cited by Loevinger and Cook-Greuter and the Bayesian reasoning used. It seems that of the hundreds of studies building on Loevinger's work, none checked these basic assumptions. We believe that the flaws in these assumptions indicate only small mathematical errors on average and do not imply the need for significant revisions in past studies, however when desiring a strong foundation for the SCT, these errors represent another reason to transition beyond the ogive cutoff method. The most affected conclusions of past studies are probably those that make inferences to the general population. These types of inferences represent a very small percentage of the results of published studies, which are usually seeking correlations between ego development and other phenomena (conclusions which remain largely valid in light of the errors we will mention) rather than making claims about whole populations.

First, the formulas used by Loevinger seem to assume independence among the stems, which is not the case. Second, although the ogive method is inspired by Bayes’ theorem, it also seems

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11 For a simple summation, the multiplier of each level would be the order of that level, i.e. the frequency (number of) the first level would be multiplied by 1; the frequency of the second by 2, etc.; again, under the (problematic) assumption of equal level spacing.
to violate certain principles in Bayes’ theory. In the ogive procedure (Appendix 1), if a cutoff value is satisfied (e.g., 4 items are at or above 4.5/Strategist) then all other information is disregarded (i.e., the other 32 stems). Central to Bayesian theory however is the idea that each new piece of information accumulates to inform the estimate of the resultant probability, meaning information is not discarded. Third, one of our consultants noted that the method "makes sense only if the number of people above and below a level are more or less equal, which is not usually the case."

Finally, the equation used to calculate probabilities for any level is (from Cook-Greuter, 1999; and Loevinger & Wessler, 1970):

\[ P_s = \frac{Pr \cdot T_p^x}{Pr \cdot T_p^x + (1 - Pr) \cdot F_p^x} \]

Where: \( P_s \) = probability that a person is "at" some stage \( s \); \( x \) = number of positive signs for stage \( s \); \( Pr \) = the assumed proportion of the population at stage \( s \) (prevalence or prior probability); \( Tp \) = the assumed true positive rate of a single sign to correctly classify at stage \( s \) (sensitivity); and \( Fp \) = the assumed false positive rate of a single sign to incorrectly classify not at stage \( s \) (1 - specificity).

Consultants Polister and Blazej-Neradiek produced a report illustrating in detail that the ogive formulation: (1) tries to assume that the survey items are independent, which they are not; (2) makes an error in the probability algebra, which has significant impact on outcomes; and (3) that the values for parameters \( Pr \), \( Tp \), and \( Fp \) are too arbitrary, subjective, and sensitive (i.e. small variations have substantial impacts).

The details of this report exceed our scope here (copies of that report are available from Murray). We present all of the above information as second-hand to report what our consultants found, as the author lacks the statistical skills to verify or reproduce these arguments from scratch. Such arguments are however not necessarily needed given that Cook-Greuter (in her 1999 dissertation) made significant efforts to critique Loevinger's strict use of Bayes' theorem to determine the cutoffs, especially for the higher levels. Although there was much hand-wringing in justifying the new set of chosen cutoffs, in the end they were arbitrary, as she says they are "arbitrary not in the sense of random or capricious, but in the sense of arbitrated, reasoned, deliberated." She provides a logical rationale for her cutoffs, but not a compelling or compulsory one, meaning that – i.e. another researcher might produce completely different cutoffs, using a valid but different rationale. The cutoff method was so standard an aspect of the SCT method that finding an alternative was, apparently and understandably, too radical a break with the tradition, and. So the "battles lines" of the methodology were thus drawn at whether a cutoff method should be used.

**Summary.** That there seemed to be significant problems with the ogive method was agreed upon by all of our consultants who familiarized themselves with the equations used (Dolan,
Johnson, Neradilek, and Polisar). In addition, another one of our consultants who took a cursory look at the ogive method, called it outright "indefensible." It is also true that no consultant could recall anything like this Bayesian-inspired cutoff method being used in test psychometrics in psychological or social science research.

Research Methods and Results

Method and Data Source

We include the method and results in the same section because we apply various statistical tools and software packages to a pre-existing dataset to answer our research questions. Some analysis was conducted using the R statistical package's popular IRT module (the Ilt R library), while most used the Winsteps software (winsteps.com), which specializes in Rasch analysis (i.e., one parameter IRT) (Rasch, 1980; Andrich, 1988; Bond & Fox, 2001). The IRT and Rasch analysis are described in Appendix 3.

Our dataset originates from the software package and website that has been used for (1) subjects to take the SCT (survey) online and have their responses and demographic information stored and (2) for certified scorers to read a subject's responses to SCT stems and rate stems and the entire survey based on procedures outlines in the STAGES scoring manual. The data were collected and are owned by STAGES International (which was originally run by O'Fallon's prior organization Pacific Integral). We used data from the "general protocol" containing the standard 36 stems for the STAGES SCT. The data were anonymized to contain no identifying information and were stripped of the sentence completion text, with the result that the only relevant data for each survey item are the item score (1.0 to 6.5) and survey-level numerical data such as the TPR.

The data consist of 740 surveys taken by 644 clients (some took the test more than once) between March 2009 to July 2018 (i.e., over about 9.5 years). 330 clients were female, 272 male, and 42 of unknown gender. Education levels varied widely, but the vast majority were professionals with college degrees. The age frequency per survey is: 16-29: 49; 30-39:149; 40-49:186; 50-59:171; and 60-77: 115 (i.e., a relatively mature subject pool). Subjects were from a variety of locations around the world (mostly from the U.S, and EU but included Ethiopia, Australia, New Zealand, Canada, Russia, Kosovo, Pakistan, and China). All the participants spoke English as their first or second language.

Descriptive and Basic Item Statistics

Histograms. Figure 2 shows histograms for the score at the item and survey (protocol) levels. (Note that this does not represent all of the data O'Fallon has from scoring, especially for the top two levels, as there are some small research projects that are not stored in this database.) Stage 4.5 surveys predominate, which indicates the types of clients and research subjects that come to STAGES International. Frequencies at the item level are high at 3.5, 4.0, and 4.5, which differs

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\[12\] Note that we did not set out to, or ask these consultants to prove that the ogive method was flawed. At most we summarized arguments made by other consultants, and asked them to verify or argue with those.
from the survey level in large part due to how the ogive method focuses on the higher scores.\textsuperscript{13} The IRT methods used in our analysis are robust with regard to such skews in data representation, so our conclusions should be valid for all levels except 1.0, 1.5, 2.0, and 6.5, which have very low representation.

To test whether standard statistic methods would apply to these data, we first investigated patterns of the 36 items within the survey and specifically the standard deviation of item scores and their normality (skew and kurtosis).

\textbf{Figure 2.} Histograms – Left: Survey ogive (TPR); Right: Item Scores for each level.

\textbf{Table 1.} Data shown in Figure 2.

<table>
<thead>
<tr>
<th>Stage</th>
<th>1</th>
<th>1.5</th>
<th>2</th>
<th>2.5</th>
<th>3</th>
<th>3.5</th>
<th>4</th>
<th>4.5</th>
<th>5</th>
<th>5.5</th>
<th>6</th>
<th>6.5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>2</td>
<td>1</td>
<td>16</td>
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<td>281</td>
<td>131</td>
<td>62</td>
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<td>740</td>
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<td>223</td>
<td>870</td>
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<td>7641</td>
<td>6388</td>
<td>6839</td>
<td>1522</td>
<td>874</td>
<td>146</td>
<td>36</td>
<td>26640</td>
</tr>
</tbody>
</table>

\textbf{Skew and kurtosis.} We checked the skew and kurtosis measures for items within a survey, which assess how close a dataset is to a normal (bell-shaped) distribution within each survey. This answers the question of whether items on average tend to "pile up" toward the earlier or later end of the scale. Figure 3 illustrates how skew and kurtosis represent deviations from a normal distribution. Skew can be described as "lack of symmetry around the mean" and kurtosis can be described as having a long (heavy) tail. Acceptable values for both are considered to be within -2 to +2.

For our 740 surveys, the mean kurtosis was 0.37 and the mean skew was 0.18, meaning on average the scores within a survey are normally distributed around the mean. This is a bit

\textsuperscript{13} Note the curious dip at 4.0 for item scores. We are still looking into why this might occur.
surprising since the conventional assumption might be that, for the populations in the database, there is a longer "tail" of off-the-cuff (or shadow) answers into the lower levels. That the score distributions within surveys tend to be normally distributed, which gave us confidence that more standard aggregation methods would be applicable.

**Figure 3.** Illustration of skew and kurtosis deviations from a normal distribution.

**Standard deviation.** We also examined how the standard deviation of scores within a survey varied based on the overall survey score (ogive). The results in Figure 3 show that the standard deviations for all levels (other than the top and bottom 1.0 and 6.5) are remarkably similar (.8 to 1.2). (The error bars in the figure show the variance in the standard deviations). The overall shape of the distribution of the 36 scores within a survey thus changes little for individuals at different centers of gravity, meaning that the spread of scores or width of the item's "bell curve" within a survey is surprisingly uniform regardless of the stage. There is however a slight upward trend, which would be expected because the higher the score, the more room one has to "roam" within a projective test.

**Figure 4.** Standard deviation survey scores vs. stage.

These metrics also provide information about what the cutoff method is "throwing away" since it focuses on the highest scores (the number that depends on the level – see Appendix 1) and ignores the rest. As explained later, eventually we decided to calculate the total score using a standard number (6) of the highest stems. The normal distribution of the data and the fact that the SD shows the items cluster around +/- 1 or 2 levels from their mean support the reasonableness of this type of aggregation method.
Test length. Figure 5 shows a Cronbach-Mesbah curve illustrating the Cronbach’s alpha score for successively fewer test stems (with the worst correlated items removed first). The curve shows that for a half-item test, the reliability is still excellent (.95) and that even with 10 stems, the SCT has very good reliability (.92) and that even at 5 stems the reliability is quite good (.85). This supports any future projects that use surveys with fewer than 36 items (which are now being deployed by Stages International). From a purely statistical perspective, one might wonder why the SCT uses so many items (assuming this pattern was also true of the WUSCT or MAP variations of the SCT, although we lack item-level data for these). According to O’Fallon, the full set of 36 responses is important for identifying themes and patterns in the detailed reports and coaching sessions given for individualized SCT assessments (personal communication).

Factor analysis. Figure 6 shows the output of a factor/component analysis of the data which, along with the numerical output, confirm the prior finding (for the WUSCT and now for STAGES) that the SCT loads on one factor and seems to be measuring one latent variable. This means that among the 36 stems, none seem to cluster together as if they were measuring a sub-skill of the overall capacity.

Item difficulties and item standard deviations. As a projective test, the SCT theoretically assumes that all items are approximately of equal "difficulty" on average. The stems are intended to "triangulate" or parallax the measurement from many life contexts (family, self, work, public life, etc.). Individuals are expected to vary regarding which life contexts evoke lower level responses (as in "shadow crashes), but the item differences are assumed to be entirely personal rather than based on item difficulty. We can use IRT to test this assumption.

How different are the 36 stems? Figure 7 shows "High and Low Averages" and standard deviations per stem, and the tables are truncated to show only the highest and lowest thirds. The average score for each stem ranges from 3.71 to 4.21, which is a rather modest range indicating a small variability in stem "difficulty." Some of the stem difficulties correspond to what might be expected based on the abstraction or complexity of the stem concepts. For example, "if my mother" and "when I get nervous" elicited lower scores, and "Crime and delinquency could be halted if" and "we could make the world a better place if" elicited relatively high scores on average. The figure also shows...
that the stem "I am" has the highest standard deviation, which is consistent with the later IRT analysis showing it stands out as correlating the most poorly with the set of stems.

**Figure 7.** High and Low Averages and Standard Deviations for Stems.

**The "I am" Stem:** The "I am" stem is the least correlated with others individually and with the overall "latent variable" (ego development) being measured, and it also stands out as the only outlier in our Rasch analysis. O'Fallon confirms that anecdotally the item has unique and interesting responses and would be the first considered for removal in a shorter test. However, we suspect that it might point to measuring an important sub-trait, which might be expanded upon with research into additional similar stems.

**Item correlations.** Figure 8 shows a "heat map" illustrating the correlations of the 36 items with each other, which range from -0.8 to 1.0.
between 0.32 and 0.53. The Rasch analysis described later found all items except "I am" to "fit the model" of a rigorous test instrument.

**IRT and Rasch analysis results**

We began our analysis using the R software's ltm package and then switched to the Winsteps program for more detailed Rasch analysis. The two systems provide relatively equivalent answers for the tools they have in common, but each also has tools the other lacks. (Information about IRT and Rasch analysis is found in Appendix 3.)

We tested the 1-, 2-, and 3-parameter versions of IRT modeling and found that the 1-parameter version (which the Rasch model uses) was sufficient. (The 2-parameter version had a slightly higher fit, but the fit of the measurement theory with our developmental theory led us to use the Rasch modeling.) Within the IRT analysis, we tried the generalized partial credit (GPC) model and the graded response model (GRM), finding that the simpler GPC model was sufficient (both the AIC and BIC variations of the GPC model were tried with little difference found). We also conducted some preliminary experiments using models outside of the IRT framework, including "mixture models," "grade-of-membership models," and structural equation modeling (factor-analysis-based item response trees) and did not find evidence that these more complex methods added value to our analysis. Within the Rasch/Winsteps analysis for polytomous items, we used Andrich's rating-scale model" (RSM) (the simpler of two alternatives since the data fit the Rasch model well). Information on how to interpret Rasch results including WINSTEPS outputs can be found in Linacre (2018), Bond and Fox (2001), and the winsteps.com and rasch.org websites.

**Overall test strength.** Figure 9 shows the person and item distributions, representing the primary or most basic type of output from the WINSTEP (Rasch) analysis. The bar chart on the left shows the distribution of subjects (surveys) while the bar chart on the right shows the distribution of items (stems), both of which are in terms of the logit-scale "measure" normalized to go from -4 to +4 (technically from negative to positive infinity). What our experts can tell from this chart is that:

- The "test coverage" is impressive" over the range

- The distributions are relatively normal, which is favorable. (One can see the dent in the curve representing lower occurrence at the 4.0 level mentioned in Figure 2.)

- The items are all clustered around a similar difficulty (the mean difficulty), as noted above. This is unusual for most tests, which are expected to have a range of easy and difficult items, but the tight range of item difficulties was expected for our projective test (see Figure 5).

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14 For the WINSTEPS analysis we limited the data to only those 448 surveys scores by the primary master Scorer (O'Fallon). This eliminated the possibility that results were influenced by variations in inter-rater reliability (as suggested by a consultant). Running IRT analysis with all 740 produced similar results.
Other output tables from the WINSTEP analysis confirm that the test would be just as powerful with fewer items. Many items were redundant from a psychometric perspective, but for the STAGES assessment in its normal use, the full set of 36 items gives scorers, debriefers, and coaches required additional information for the client.

Item discrimination. Figure 10 shows the individual item information curves and their combination in the test information curve," which illustrates that all items on the general protocol have good overall discrimination. Although there is a dip for the middle values, all of the values are acceptably high. Scoring is very consistent (i.e., good quality) across the prompts (similar to the Cronbach’s alpha results). (It would be possible to conduct a deeper analysis on how each item performs across the range of all levels, but this is not needed to answer our research questions.)

Figure 11 shows the probability category curve (PCC) which plots the probability of observing each ordered category according to the Rasch model relative to the overall item difficulty. For example, the "4.5" curve shows the probabilities of a person with an overall (average) 4.5 ability, which shows – for any given test item, what they are likely to score in terms of the latent variable (which is calibrated to 0 at the average score around level 3.8). They are most likely to exhibit about 1.5 (the peak, which is 1.5 standard deviations higher than the
average), and the probability of scoring higher or lower on an item declines on both sides as shown in the figure. The first and last curves (1.0 and 6.5) are always ignored in such plots (due to the math they always extend to infinity). The intersections of the curves for adjacent categories show the "Rasch-Andrich thresholds" for demarcating the range of each category.

The curve illustrates a generally robust test, however what is notable about the graph is that every other curve is (usually) lower. The lower curves show levels (response categories) that are not as clearly differentiated from their adjacent categories, and it appears that the X.0 levels are not as crisply measured as the X.5 categories. The scoring is strong at discriminating the 6-person perspectives but not as strong at discriminating early (passive) from late (active) halves of each person perspective. This makes sense based on the hierarchical nature of the model parameters, in which the tier distinction is the most crude, the individual/collective dimension is the next most refined, and the active/passive dimension is further refined. It is also possible that the observed pattern arises because the choice of items is better at eliciting active vs. passive responses.

O'Fallon hypothesizes that these dips for the X.0 levels are also because they regard "passive" phases in which the subject is beginning to recognize objects of awareness but is still struggling to find specific language for them, so they may drop to the prior level in terms of vocabulary.

Category boundaries and step uniformity. The PCC (Figure 11) also shows that the separations between values (the curve intersections or Rasch-Andrich thresholds) is relatively even over the range, which represents a primary predication by O'Fallon.

A better method of illustrating the category boundaries regards the category demarcation graph shown in Figure 12, showing the relationship between the STAGES score for each item vs. the Rasch model measure of the latent variable. The relationship is quite linear within the normal range of scores (2.0 to 6.0 at between +4 and -4 standard deviations from the mean, which is where 99.9% of item responses fall), and the spacing between levels is relatively uniform. The relative uniformity of spacing can also be observed in the cumulative probability curves in Figure 13.

The relatively even spacing tentatively confirms O'Fallon's hypothesis that the STAGES model cuts the developmental space into equal-spaced units. O'Fallon proposed that one benefit of a theory-based (i.e., explanatory vs. more descriptive and data-driven) model was that it offered a consistent "ruler" against which to measure the progression of stages, which is resilient to data collected in future studies from different populations. This hypothesis is supported here.
Summary/fit table and discrimination strata. Figure 14 shows the summary table with fit statistics from the WINSTEP output. INFIT and OUTFIT statistics assess outliers and flag possible problems. The fit statistics identifying mis-fitting (infit and outfit) items is .99, which is in the "very good" range (i.e., very low misfit means – values less than 2 are considered acceptable). The reliability of the items is excellent at .95 and is analogous to the excellent Cronbach’s alpha metric previously noted for the test.

The separation index of persons at 5.52 is noteworthy. Through a transformation formula, this provides an indication of the number of "strata" or levels that the test resolves. (This is estimated as the adjusted or "true" item standard deviation divided by the average measurement error, expressed in standard error units.) The formula for converting the person separation index to the number of discernable strata is \((4S-1)/3\) meaning that \((4*5.52-1)/3 = 7.0\) strata. This is analogous to the estimate above with the PPC curve that the test cleanly differentiates the 6 person perspectives (7 levels according to this calculation) and has more difficulty resolving all 12 levels as clearly.

The strong differentiation of 6 (or 7) levels holds for our particular dataset, which has some levels which are more highly represented. Another metric given by WINSTEPS indicates the "maximum" strata number, which "reports how many statistically different ability levels could be distinguished in a uniform sample covering the full raw-score range of the test." This is independent of sample size and is unlikely to be obtained for any sample (which tends to have a normal-shaped distribution). It is however pertinent to note that the "maximum strata" for our system is calculated at 24 levels (23.9), indicating that theoretically the system can differentiate at the level of the half-stage (suggesting that the strata index would improve with more data across the less well represented levels).
Rasch/IRT analysis summary. Whether examining Winsteps (Rasch) or R (IRT) outputs, our consultants were unanimous that the STAGES inventory and scale is psychometrically sound across its entire range (with more certainty about this for the levels inside the extreme ratings). Its strength had been verified in the past by repeatedly high Cronbach's alpha measurements of internal consistency ("reliability"), but the IRT and Rasch analysis contribute additional depth to this finding.

The test would be strong psychometrically at 18 or even 10 items. All items on the general protocol are strong, but the stem “I am” stands out as fitting less with the model compared to the others. The 12 stages defined by the model are relatively evenly spaced along the spectrum, supporting O'Fallon's conjecture that the STAGES model cuts the range into equal slices.

The test easily differentiates the 6 person perspectives and has more difficulty differentiating between levels at the granularity of 12 levels. We will investigate how the scoring manual or procedure might provide a more refined differentiation between the first and second halves (the actively and passively oriented) of each person perspective. According to O'Fallon (personal communication), this makes sense within the theoretical model. At the X.0 or passively oriented levels, the meaning-making system of the prior X.5 (actively oriented) level is being deconstructed and a new worldview is emerging. This process might arise in language with more variation and less precision in textual measurement.

A New Aggregation Method – The Core Stage

We have outlined many problems with the ogive cutoff method of aggregating item scores to produce the TPR. IRT (and Rasch) analysis ignores the ogive formula and assumes that the latent variable is a simple or weighted combination of the item scores, which is performed for most psychometric assessments. This is analogous (though not exactly the same as) the less-used TWS score for a survey.

Regarding the IRT and Rasch analysis, our consultants agreed that (1) the test is valid and strong examined at the item level and (2) the ogive cutoff system was problematic. We still want our developmental scoring to be compatible with the expectation that, for a projective test, a person's true "center of gravity" will be evidenced from the higher scores, and that how the lower
scores are spread out does not affect this summary measurement. To achieve this, we must discard some assumptions made in IRT, as none of our consultants were able to identify any psychometric evaluations of aggregation methods for projective tests (or tests that focused on only the top items). Thus, in this respect the SCT remains somewhat an anomaly within the field of psychometrics, which is why Loevinger had to develop an alternative method (the ogive method).

We had two primary goals for designing a new aggregate method, which we ended up calling the "Core Stage."\textsuperscript{15} First, we wanted to avoid the problems of the ogive cutoff method and use something more straightforward and with fewer arbitrary parameters. Second, we wanted to minimize the differences between the new and old scores so that we would not have to alter the established interpretation of each level (i.e., to remain consistent with how a "3.5/Achiever" total score is understood in the field). Once a method was determined, we wanted to scale it to appear as close to the prior ogive method as possible (based on the RMS error of the Core Stage vs. the ogive score).

We considered two methods: The first regarded taking the average of the top X scores, where X was to be experimentally determined. The second method was a true weighted score, in which scores of higher levels received additional weights. Our method of assigning weights was to raise scores to a power P that systematically increased with higher scores, where the power was to be experimentally determined. By "experimentally," we mean iterating over different values to identify which come closest to the old ogive score. We had confidence that these methods would not have unusual statistical properties, because (1) the IRT analysis showed the test was strong and (2) the analysis of skew, kurtosis, and standard deviation across appeared favorable for surveys at all levels.

The new aggregation methods we tried were:

- Average of the top 5, top 8, top 10, top 12, and top 18 scores; and

- Sum of the scores raised to the power of 1, 5, 8, 10, 12, 15. (Remember that scores are within 1.0, 1.5, ...6.5.)

The results are shown in Table 2. We compare each new method with the old ogive score by taking the root mean square error over the entire database (n=740). "Ave of all" is comparable with the TWS method (which regards the sum of the scores) and shows a baseline RMSE of 0.55. Note that because the scores increase by 0.5 per level, an RMSE of 0.5 represents one full level. The lowest RMSE for the TopX method was 0.22 at Top10 and Top12. When taking the average of the sum of the score raised to powers, the power with the lowest RMSE was Score\textsuperscript{8}. It appeared that this method did not produce errors as low as the TopX method and was also more difficult to conceptually resolve with our understanding of developmental progress. (We also tried combining the two methods, which did not yield a lower RMSE.)

\textsuperscript{15}This term may be revised when a better one is found.
### Table 2. RMS Error of alternative aggregate methods.

<table>
<thead>
<tr>
<th>Method</th>
<th>RMSE</th>
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</tr>
<tr>
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</tr>
<tr>
<td>Score&lt;sup&gt;10&lt;/sup&gt;</td>
<td>0.27</td>
</tr>
<tr>
<td>Score&lt;sup&gt;12&lt;/sup&gt;</td>
<td>0.28</td>
</tr>
<tr>
<td>Score&lt;sup&gt;15&lt;/sup&gt;</td>
<td>0.33</td>
</tr>
<tr>
<td>aveTop10Score&lt;sup&gt;2&lt;/sup&gt;</td>
<td>0.24</td>
</tr>
</tbody>
</table>

The RMS error represents an average error over all surveys, however we wanted to more closely examine how the methods performed at each level. It is more important that the methods work well where there are the most scores, and having low RMSE for higher scores was more important than for lower scores (Concrete tier), because we realized that our new method was reconceptualizing the interpretation of low-level scores. The ogive score conflates shadow crashes with meaning making complexity, and we wanted the new measure to focus on meaning making complexity (or maturity).

Figure 15 shows histograms displaying the scores of the new methods (Y axis) vs. the old ogive score (x axis). The bar marked "SAME" provides comparison to illustrate the "straight line" one would achieve if a new method gave the exact same score as the ogive method. Although "top 10" provided the best results, we decided to use either Top6 or Top12, which had RMSE's practically as good since they represent exactly 1/6th or 1/3rd of the 36 stems. Top6 always performs better than Top12, and both always perform better than the average, so we choose the method of (average of the) Top6 (or top 6th for surveys with other than 36 items) for the new Core Stage.

Next, to bring the Core Stages even closer to the old ogive scores, we performed a linear transformation of the Top6 score. Linear fitting showed that a formula of (1.2*AveOfTop6)-1 would yield a score even closer to the old ogive. We call this the "adjusted" Top6, which is also shown in Figure 14. The adjusted top6 performs better for most of the subtle and metaware levels, and it is unimportant that it does not perform as well for the Concrete tier.
Core Stage. In summary, the new aggregate method called the Core Stage uses the formula \( (1.2 \times \text{AveOf-top6}) - 1 \). For protocols of arbitrary length, the Core Stage takes the top 1/6th of the scores. Unlike the ogive score which yields a category, the new Core Stage value yields a continuous number (which is usually rounded to one decimal digit). The benefits of the Core Stage method vs. the ogive include:

- It yields results that are usually close to the old ogive score (but only on average).
- It is easy to calculate (uses a formula rather than a procedure).
- It behaves more predictably like standard average or total scores used in psychometric analyses.
- It does not confuse shadow with complexity maturity and can thus be useful for scoring children (which O’Fallon has begun doing).
- It is not based on a suspicious or erroneous application of Bayes’ theorem.
- It does not force scores into categories but allows fractional values.
- It is not sensitive to small differences in how stems are scored (which occurs in the ogive method near the cutoffs).
- The new Core Stage rating makes it easier to produce a total score for protocols of any length (one does not have to worry about inventing new cutoffs).
- It does not contain a large number of arbitrary parameters (such as the 12 ogive cutoffs and 12 TWS multipliers and the other Bayesian parameters). The primary ad-hoc

---

\[16\] When \( N \) is not divisible by 6: Where \( 36/N = \text{I(nTEGER).R(emainder)} \) (e.g 2.667), \( \text{Ave\_top\_6th} \) is the weighted mean where the top \( I \) are given weight 1, and the \( I+1 \)th score is given a weight of \( R \), the rest given weight 0.
parameter is the "6" (or 1/6th) by taking the top 6 scores. Our analysis indicates that outcomes are not overly sensitive to this parameter (i.e., 5 to 10 behaves similarly), however tuning this parameter remains an open question. In addition, the specific formula for aligning the Core Stage with prior ogive values is dependent on the dataset used and may need to be adjusted in the future.

This Core Stage measure has been added to the STAGES assessment software (on both the "Training Platform" and the "Production Platform"). Both the new Core Stage (and additional metrics discussed below) and the prior ogive and TWS metrics are currently shown. We are in a period of training scorers to use and understand the new method, however the old method will be used for at least another year for reporting results to clients.

For several months, O'Fallon has been observing that the Core Stages closely match her intuitions about developmental stages, are close to the old ogive score, and function even better than the old ogive score in the Concrete tier.

**Additional measurements: Average, Bottom, Spread.** The new scoring system shows several measures in addition to the Core Stage: The *Average* (across all stems); *Bottom Score* (the average of the bottom 6, related to a "shadow score" for adults); and *Spread* — the spread score is the Core Stage minus the Bottom Score, and indicates the range of values in the survey.

**Early and Late stages.** Prior to this work and continuing after it, advanced scorers use an additional set of text analysis instructions to determine a sub-level rating of early, middle, or late within each level (for each stem). Although this refinement of the item score is not included in the ogive (or TWS) calculation, it can be considered when the total survey score is tweaked based on global considerations.

The new Core Stage allows for fractional values, which provides another indication of early/middle/late sub-levels within a stage. We still need to further consider how these two methods of sub-stage scoring (i.e., Core Stage fractional level vs. text analysis rules for sub-level) will coordinate with each other. These two methods will not necessarily coincide, and it remains to be determined how they will be resolved.

In addition, the question arises RE where along the fractional scale we call "early" and "late." For example, *early 3rd*-person perspective could be just *below"3.0"* as in "2.9 or 3.0" or it could be just at and above 3.0 as in "3.0 and 3.1." We have decided tentatively to use the convention shown in Table 3 and illustrated in Figure 16.

**Table 3.** Decimal fractions vs. early and late for stage X.

<table>
<thead>
<tr>
<th>X.0 early</th>
<th>X.5 early</th>
</tr>
</thead>
<tbody>
<tr>
<td>X.1 mid</td>
<td>X.6 mid</td>
</tr>
<tr>
<td>X.2 mid</td>
<td>X.7 mid</td>
</tr>
<tr>
<td>X.3 late</td>
<td>X.8 late</td>
</tr>
<tr>
<td>X.4 transition</td>
<td>X.9 transition</td>
</tr>
</tbody>
</table>
As indicated, the fractional Core Scores will be rounded to the nearest single decimal value. In reports that classify scores at the granularity of each developmental level, as if "rounding" to a developmental level, we will round the X.4 and X.9 fractions up and the other fractions down. For example, 2.9, 3.0, 3.1, 3.2, 3.3 will be rounded to "3.0" and 3.4, 3.5, 3.6, 3.7, 3.8 will be rounded to "3.5."

Although this has not yet attempted, it would be possible to adjust the item scores based on the sub-level text analysis of the stem completions. The Core Stage could be adjusted in the following manner if early or late indicators were found:

- for early, add 0
- for unspecified or middle, add 0.15
- for late, add 0.35

This corresponds with the method shown in Table 3 and Figure 16.

**Conclusions and Future Work**

This research has increased our confidence in the STAGES theory, model, and scoring methodology and has contributed some discoveries that arguably, could apply to other SCT frameworks as well. The SCT method of measuring ego development generally stood up well under the lens of IRT and Rasch analysis.

We have also produced a new method for calculating the aggregate (total) score over the 36 stems (or fewer), which we call the Core Stage. The Core Stage has many desirable properties, as noted in the prior section. The STAGES framework will be gradually shifting over to this new method, however we remain agnostic regarding whether other SCT frameworks should adopt this method (or any alternative to the ogive method). The ogive method has been performing well enough over the years, represents the default standard, and the effort to adopt a new method may well outweigh any benefits. The benefits of changing are greater for the STAGES model vs. other SCT variations, because others use a fixed set of stems (sometimes splitting the survey in half), while the STAGES allows for creating valid surveys with new stems of any length, which would require ongoing alteration of cutoff values, which can only be performed in arbitrary ways. In addition, automated computer scoring exists for the STAGES model (see www.stageleaders.com), which means the SCT will become more practical to use for large-scale research where the validity of methods is critical.\(^\text{17}\) (The companies using the MAP, LGP, and

\(^{17}\) This automated scoring is not as accurate as human scoring, but is accurate enough for statistically valid studies of groups of 20 or more.
GLP are exclusively focusing their assessment work on individual assessments and the quality of their coaching and consultation with individuals and teams, as far as we know.

**Study limitations.** Limitations of our research methodology and results include the fact that the sample population is on average higher than the general population. Although IRT analysis is expected to be fairly resistant to such skew effects, the results may be more robust if we obtain more scores from the 2.5, 3.0, and 3.5 levels, which we will attempt to do. The analysis was limited to the STAGES general protocol and to data collected before mid-2018. A larger dataset is now available and might be used to update some results.

Although the Core Stage method does not contain a large number of arbitrary parameters (such as the 12 ogive cutoffs, the 12 TWS multipliers, and the other Bayesian parameters), it does contain some arbitrary parameters, specifically the "6" (or 1/6th) when taking the top 6 scores. Our analysis indicates that outcomes are not overly sensitive to this parameter, and the specific formula for aligning the Core Stage with prior ogive values is dependent on the dataset used and may need to be adjusted in the future.

**Future research.** Future research could further explore:

- Given the predominance of 4.5 surveys, it would be useful to acquire more data in the database for lower stages.

- RE the "strata" metric and weaker ability to differentiate all 12 levels, it might be possible to modify the coding manual to better differentiate early from late stages (and active vs passive), one method for which would be to compare surveys with Core Stages around "X.5" with those at X.0 above and below them and seek additional principles that would differentiate the X.5's.

- We could more closely examine the differences between stem items regarding their average difficulty and standard deviations and which levels they better perform at differentiating.

- We could more closely examine what occurs with the "I am" stems and determine whether additional stems could be invented that target the same sub-capacity.

- We could investigate the dip in the number of stems scored at 4.0 over all items.

**References**


Appendices

Appendix 1: TWS calculation and ogive cutoffs

The original STAGES TWS formula is an extension of that used by Cook-Greuter and Loevinger and multiplies the frequencies of each level by a factor and sums those results using these factors:

<table>
<thead>
<tr>
<th>Level</th>
<th>1</th>
<th>1.5</th>
<th>2</th>
<th>2.5</th>
<th>3</th>
<th>3.5</th>
<th>4</th>
<th>4.5</th>
<th>5</th>
<th>5.5</th>
<th>6</th>
<th>6.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
</tr>
</tbody>
</table>

Table 4 below is used to determine the final derived score. The STAGES model uses the identical approach utilized by Loevinger (1998) and updated by Cook-Greuter (1999) but adds three levels (2.0, 5.5, and 6.5).

Loevinger and Cook-Greuter use a "cutoff" method they called the "ogive" method to aggregate the scores of the 36 completions to produce an overall "center of gravity" score for each inventory. The cutoff method regards a procedure where each step says "if there are X or more completions at level L then the final score is L," where X differs depending on the level. Below is a summary of the cutoff approach used for the STAGES model.

Note how the levels tested begin with the highest (6.5), move down to 3.0, and then begin at the lowest and work up to 2.5. This is because the cutoff numbers were determined by CG/L using a method that they linked to Bayes’ theorem. The 2.5 (Diplomat) level was estimated by Loevinger (and Cook-Greuter) to be the most prominent in the normal population and thus the most likely given no additional evidence. This is why 2.5 represents the final or "default" value in the procedure.18

Cook-Greuter used the cutoff of 4 for the 2 levels above Strategist (4.5), and STAGES duplicated that approach by using 4 for all stages above 4.5.

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18 This Ogive method contains a number of assumptions and approximations which we will discuss in a future paper. What is important here is that the method is the de-facto standard that has been used in the numerous research studies using ego development assessment for almost 40 years.
Table 4. Cutoff Rules For a 36–Item Sentence Completion Test.*

<table>
<thead>
<tr>
<th>If there are:</th>
<th>Assigned stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 or more rated at 6.5 or higher</td>
<td>6.5</td>
</tr>
<tr>
<td>4 or more rated at 6.0 or higher</td>
<td>6.0</td>
</tr>
<tr>
<td>4 or more rated at 5.5 or higher</td>
<td>5.5</td>
</tr>
<tr>
<td>4 or more rated at 5.0 or higher</td>
<td>5.0</td>
</tr>
<tr>
<td>6 or more rated at 4.5 or higher</td>
<td>4.5</td>
</tr>
<tr>
<td>9 or more rated at 4.0 or higher</td>
<td>4.0</td>
</tr>
<tr>
<td>14 or more rated at 3.5 or higher</td>
<td>3.5</td>
</tr>
<tr>
<td>17 or more rated at 3.0 or higher</td>
<td>3.0</td>
</tr>
<tr>
<td>7 or more rated at 1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>7 or more rated at 1.5 or lower</td>
<td>1.5</td>
</tr>
<tr>
<td>7 or more rated at 2.0 or lower</td>
<td>2.0</td>
</tr>
<tr>
<td>-</td>
<td>If none of the above, use 2.5</td>
</tr>
</tbody>
</table>

* Starting at the highest stage 6.5 and proceeding down the table, assign the stage from the first row where the rule applies.

The cut-point criterion in the higher stages 5.0, 5.5, 6.0, 6.5 is analogous to the cut points in the Cook-Greuter scale.
Appendix 2: Stages Model Figures

Below are three descriptions of the 12 levels of the STAGES model. Figure 17 shows how the scoring process determines the level using three questions, Figure 18 shows the same information in a different graphical format, and Table 5 shows how the names of STAGES levels correspond to names given in related developmental theories.

Figure 17. Diagram of stage assigned based on the responses to three questions.

Figure 18. STAGES Tiers & Repeating Principles
Asterisks (*) show levels added in STAGES vs MAP model.
O'Fallon has speculated a fourth tier in the STAGES model, continuing the repeating patterns observed in the first three tiers into 7.0, 7.5, 8.0, and 8.5. This fourth tier is based on her reading of Aurobindo's description of these rare stages of development.

Below is a table showing correspondences between five developmental models gleaned from sources in the literature. Definitions of levels of different models do not usually exactly align but share sufficient characteristics that they are comparable.

**Table 5.** Correspondences of Levels in Five Developmental Models.

<table>
<thead>
<tr>
<th>O'Fallon</th>
<th>Loevinger</th>
<th>Cook-Greuter</th>
<th>Torbert</th>
<th>Kegan</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.5 (Illumined)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.0 (Universal)</td>
<td></td>
<td></td>
<td>Ironist</td>
<td></td>
</tr>
<tr>
<td>5.5 (Transpersonal)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.0 (Construct Aware)</td>
<td>Integrated e9</td>
<td>Construct-aware / Ego-aware</td>
<td>Alchemist/Magician</td>
<td></td>
</tr>
<tr>
<td>4.5 (Strategist)</td>
<td>Autonomous e8</td>
<td>Autonomous, Self-actualizing</td>
<td>Strategist</td>
<td>Self-transforming/Inter-individual (5th)</td>
</tr>
<tr>
<td>4.0 (Individualist)</td>
<td>Individualistic e7</td>
<td>Individualist, Self-Questioning</td>
<td>Individualist</td>
<td></td>
</tr>
<tr>
<td>3.5 (Achiever)</td>
<td>Conscientious e6</td>
<td>Conscientious, Self-Determining</td>
<td>Achiever</td>
<td>Self-authoring/Institutional (4th)</td>
</tr>
<tr>
<td>3.0 (Expert/Specialist)</td>
<td>Self-aware e5</td>
<td>Self-conscious, Skill-Centric</td>
<td>Expert/Technician</td>
<td></td>
</tr>
<tr>
<td>2.5 (Diplomat/Conformist)</td>
<td>Conformist e4</td>
<td>Conformist, Group-Centric</td>
<td>Diplomat</td>
<td>Socialized/Interpersonal (3rd)</td>
</tr>
<tr>
<td>2.0 (Rule oriented)</td>
<td>(Delta/3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5 (Opportunist /Egocentric)</td>
<td>Self-protective e3</td>
<td>Self-defensive, Self-Centric</td>
<td>Opportunist</td>
<td>Instrumental/Imperial (2nd)</td>
</tr>
<tr>
<td>1.0 (Impulsive)</td>
<td>Impulsive e2</td>
<td>Impulsive</td>
<td>Impulsive</td>
<td>Impulsive (1st Order)</td>
</tr>
<tr>
<td></td>
<td>(i2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre-social e1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(i1)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Most scholars agree that there is substantial overlap and that the various theories are more or less discussing the same thing. There are however differences as well, and these become important as one tries to compare one theory to another or assessments made within one model to assessments made within another. Although there are differences, the similarities and alignments are actually quite striking since many were independently developed, which supports the overall validity of the developmental approach.
Appendix 3: Item response theory and Rasch analysis

IRT (also known as latent trait theory, strong true score theory, or modern cognitive test theory) represents a main school/toolbox in modern psychometrics (it is the method used in validating high-stakes tests such as the SAT and GRE). It specifies statistical methods for use in assessments that include many items to assess a single human trait (called the "latent variable" since it cannot be directly measured). Rasch analysis is usually considered a subset of IRT that, for theoretical reasons, is limited to "one-parameter" modeling (IRT includes a family of 1-, 2-, and 3-parameter models).

Whereas they are well-known in psychometric circles, Rasch’s (1980) models for measurement have been employed by developmental psychologists only recently (Andrich & Constable, 1984; Bond, 1994; Dawson, 1998, 2000; Müller, Sokol, & Overton, 1999).

Although IRT does not address the question of how to aggregate item scores for a projective test, we performed an IRT analysis of the STAGES database of scored protocols to establish a firm foundation for whichever aggregation method we chose to replace the ogive cutoff method.

**Item Response Theory.** The table below illustrates key differences between classical test theory and IRT (including Rasch analysis). (The Wikipedia entry on IRT also provides a useful overview.)

<table>
<thead>
<tr>
<th>Classical Test Theory (CTT)</th>
<th>Item Response Theory (IRT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The test is the unit of analysis</td>
<td>The item is the unit of analysis</td>
</tr>
<tr>
<td>Measures with more items (longer) are more reliable than their counterparts</td>
<td>Measures with fewer items (shorter) can be more reliable than their counterparts</td>
</tr>
<tr>
<td>Comparing scores from different measures can only be done when the test forms/ measures are parallel</td>
<td>Item responses of different measures can be compared as long as they are measuring the same latent trait</td>
</tr>
<tr>
<td>Item properties depend on a representative sample</td>
<td>Item properties don't depend on a representative sample</td>
</tr>
<tr>
<td>Position on the latent trait continuum is derived from comparing the test score with scores of the reference group</td>
<td>Position on the latent trait continuum are derived by comparing the distance between items on the ability scale</td>
</tr>
<tr>
<td>All items on the measure must have the same response categories</td>
<td>Items on a measure can have different response categories</td>
</tr>
</tbody>
</table>

**Figure 19.** Classical Test Theory vs. Item Response Theory.
Item response theory creates a single scale used to measure the latent variable (i.e., the human skill or "proficiency") and the difficulty of an item (and the score for the whole test), which allows item difficulties and person abilities to be meaningfully compared. For example, a value of "3.2" means the same thing regarding the latent variable when used to discuss the skill level of an individual, the difficulty level of an item, or the overall score on a test. Item response theory can calculate the difficulty and information power of each test item at each trait level. For example, an item or an entire test can be found to reliably differentiate weak from moderate ability but can be poor in differentiating between moderate and advanced abilities.

One thing that distinguishes IRT from "classical" test theories is that it does not assume that each item is equally difficult, meaning it calculates an item difficulty for each item. Item response theory assumes that the probability of a correct response to an item is a mathematical function of person's skill and the parameters (primarily difficulty) of an item. Item response theory analysis begins with a sufficiently large set of test data and, using that assumption, iteratively works backwards to calculate (1) the difficulties of each item and (2) the overall skill of each test-taker (this type of method was infeasible before computers, which is one reason it was less popular when Loevinger began her research).

Item response theory converts the measurement (latent) scale of test into a standardized form. By using "logistic" scaling, the scale is always normalized such that (1) the mean value is 0 (i.e., negative values are below average); (2) the range is a true scalar (continuous or interval scale) in that it is infinite in positive and negative directions (even if the test items cover a specific range as in a 1-5 Likert scale or a 0-100% correct score for a math problem); and (3) the standard deviation is 1 (i.e., the scale works conceptually like a bell curve or "Z-score" with standard deviations marked on the x axis). Item response theory models posit that the difference between an item’s difficulty and a person’s ability reflects the probability of a person succeeding at a given task (at least for the 1-parameter version).

One strength of IRT (and Rasch) analysis is that the parameters of the models are generally not sample- or test-dependent and can thus be generalized to different contexts. (Note that "polytomous" IRT methods were used here, meaning those applying to non-binary measurements.)

Item response theory analysis can be used to answer questions including: do any of the items or any of the test-takers seem to be outliers (i.e., have an unusual relationship between skill level and item response)? For more information, see the figure in Appendix 4 "IRT vs. Classical test theory."

- calculate total test scores that take into account variations in the strength (reliability or information power) of each item;
- determine the reliability of items and of the test as a whole, including the information power of items (or the test) to assess each part of the scale;

19 An item’s difficulty is defined as the trait level required for participants to have a 50% probability of answering the item correctly. If an item has a difficulty of 0, then an individual with an average trait level (i.e. of 0) will have a 50/50 chance of correctly answering the item.
find outliers or misfits in test items, indicating that they do not function as expected and should be changed or removed;

identify outliers in the test-taking subjects, such as those who answer typically difficult items correctly but answer typically easy items incorrectly;

estimate the similarity of the gaps between ordinal trait categories and the resolution or number of such categories that a test can differentiate;

test for the uni-dimensionality of the construct regarding whether the test as a whole measures a single latent variable.

**Rasch Analysis.** Rasch analysis (Rasch, 1980; Andrich, 1988; Bond & Fox, 2001) is usually considered a subset of IRT, although many Rasch proponents maintain that its underlying philosophy of measurement theory is distinct. Item response theory includes 1-, 2-, and 3-parameter models, while Rasch proponents advocate for no more than 1 parameter. "Parameters" regard numbers that characterize each item differently, where the first and primary parameter is the item difficulty and second parameter is the item "sensitivity," which measures essentially how quickly the item responds to changes in skill level. A maximally sensitive item will have a sudden jump between level X and the next level with low and high plateaus on either side of that jump, meaning that it discriminates above and below that value (its difficulty value) extremely well but does not discriminate among the lower or higher values, and does not discriminate among the higher values. One could think of this as asking "how much information does an item contribute to differentiating each level from others?" The third parameter sometimes introduced regards the likelihood of "guessing" the correct answer for each item.

For reasons related to foundational theories of measurement, the Rasch community says that only the 1-parameter model produces a "true" continuous scale of the type used in measurements in the hard sciences. They constrain analysis to use the 1-parameter model and identify items (and subjects) for which the data fall outside of this model as outliers, which means that the test item should be removed or revised. In contrast, the more standard IRT method adopts a purely statistical modeling approach that uses as many parameters as needed to find a model that best fits all the data. The details of this controversy exceed our scope, but our consultants have indicated that for our dataset, the difference does not matter and that the 1-parameter analysis compatible with Rasch assumptions is sufficient.

Commons and Pekker (2009, p. 13-14) summarize the Rasch model by saying that it: "Transforms raw data into unidimensional, abstract, linear, equal-interval scales if the data fit the model. Equality of intervals is achieved through log transformations of raw data odds. The Rasch model is the only model that provides the necessary objectivity for the construction of a scale that is separable from the distribution of the attribute in the persons it measures...It works by using probabilistic equations to convert raw ratings of items into scales that have equal intervals if the data fit the model. Such a scale can then be used as a type of objective ruler against which to measure the data on items as well as on respondents (Andrich, 1988). Statistically speaking, this scale will be linear."
The STAGES Specialty Inventories: Robustness to Variations in Sentence Stems

Terri O'Fallon¹ and Tom Murray²

Abstract: The STAGES developmental model is a variation of prior ego development frameworks that defines developmental levels in terms of three parameters: object of awareness (concrete, subtle, or metaware), individual vs. collective focus, and active/passive orientation. STAGES, like prior frameworks, uses a sentence completion test (SCT) assessment. Prior frameworks rely on exemplar-based scoring that is closely tied into the specific sentence stems. In contrast, STAGES scoring system is based on language properties that do not depend on the sentence stem. Thus STAGES is the first such assessment to be able to freely incorporate alternative sentence stems without the labor intensive process of discovering the full range of specific responses. Though the STAGES theory and assessment methodology easily allow for using alternative sentence stems, the validity of using alternative stems needs to be shown. In this paper we report on internal consistency studies of several "specialty protocols" which are SCT surveys with 6 to 10 of the original 36 stems replaced by stems focused on a particular specially area. Results show strong reliability scores, via the Cronbach's alpha statistic, for six specialty inventories, on: leadership and organizations, love, education, psychological reflection, climate change, and a children's SCT.

Keywords: Cronbach’s alpha validity, children's and adult assessments, ego development, protocol variations, STAGES.

Introduction and Background

Motivations. The STAGES developmental model is a variation of prior ego development frameworks that defines developmental levels in terms of three "parameters" (or "drivers"): object of awareness (concrete, subtle, or metaware), individual vs. collective focus, and active/passive orientation. It uses a variation of the sentence completion test (SCT) that began

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with Loevinger’s Ego Development research (1998) and was updated by Cook-Greuter (1999). The prior frameworks rely on exemplar-based scoring that is closely tied into the specific sentence stems. In contrast, STAGES scoring system is based on language properties that do not depend on the sentence stem. Thus STAGES is the first such assessment to be able to freely incorporate alternative sentence stems without the labor-intensive process of discovering the full range of specific responses. Though the STAGES theory and assessment methodology easily allow for using alternative sentence stems, the psychometric validity of each use of alternative stems still needs to be shown. In this paper we report on internal consistency studies of several "specialty protocols" which are SCT surveys with 6 to 10 of the original 36 stems that are replaced by stems focused on a particular specialty area. We will also summarize research on the validity of SCTs of varying length, another dimension of survey variability.

Prior Research

Validity of the SCT and the STAGES scoring system. The SCT for ego development is a robust assessment instrument. Westenberg et al. (2004) conclude that "findings of over 350 empirical studies generally support critical assumptions underlying the ego development construct" (p. 485). In Murray (2017) we give an overview of the history of research on the SCT for inter-rater reliability, internal consistency, test-retest reliability, face validity, construct validity, incremental validity, clinical utility, external validity, and predictive validity. A summary of those findings is also included in A Summary of Research on and with the STAGES Developmental Model in this issue. In that article, we summarize validity studies particular to the STAGES model. In this paper we are interested in two issues: the primary one being the robustness of the SCT model to variations in sentence stems, and secondarily, its robustness to reducing the number of sentence stems. Next we summarize prior research on these two questions.

Variations in SCT stems. Historically, within the lineage of ego development research (and several other developmental models), stages of human development have been identified by interviewing or observing samples of people, recording their responses and organizing these responses into categories. Researchers then sequenced these categories of responses from the earliest to the latest level of maturity. These categories could then be used to identify where a person might fall in their developmental journey through life. This is the method used by other SCT projects and is outlined in a dissertation on the construction of and validity measures of one new sentence stem “A good Boss” (Minard, 2009).

As to variations in the choice of sentence stems ("test items"), we can make several observations. Loevinger adapted the sentence items numerous times before settling on a final version. There is nothing particularly special about the stems Loevinger used. Though they were carefully chosen and vetted; many were drawn from the experience of prior researchers, and the entire set evolved over the years before settling into the current standard form of the WUSCT. Others have used alternate forms of the WUSCT tailored to men, women, or youth.

Sentence starters can be inadequate for a variety of reasons, e.g. they may be vague and thus understood in very different ways; they may coerce an overly limited developmental range of responses; or they may introduce biases of various types. Thus new stems must be pilot tested for
clarity and psychometric validity. But assuming that this due-diligence work is done to ensure that questions are adequate, overall prior research suggests that the strong psychometric properties of the SCT are robust to changes in the choice of sentence stems. However, the general question of stem flexibility has not been addressed until this study. Rather, specific sets of stems have been tested in the past.

Ego development (meaning-making complexity) is a holistic capacity spanning all life-contexts (though we may exhibit maturity different than our "center of gravity" in any given context). The stems are meant to probe across a variety of contexts, and triangulate toward an overall measurement. Cook-Greuter (1999) notes that:

As Fischer, Hand, & Russell (1984) pointed out people tend to respond optimally to a task in 'domains in which they are highly motivated.' To tap this motivation, the SCT stems were devised to address ordinary everyday experiences shared across a wide spectrum of people. (p. 52)

Kegan's and Wilber's framing of a holistic span of life contexts as including subjective, intersubjective, and objective (I/we/it) contexts. Loevinger (1985) describes the span of stems in a related way:

Looking at item content, the stems can be classed as first person (My father –, When they talked about sex, I –), third person (Sometimes she wished that –, Usually he felt that sex – ), and common noun or impersonal (A good father –, Being with other people –). (p. 424)

Some stems seem to be sensitive to particular transitions along the developmental spectrum, and this is another reason for having an adequate diversity of stems. For example, some stems are related to impulse control which comes on line at second person perspective, and increases gradually or levels off for later levels. Therefore, sentences sensitive to impulse control are also sensitive to the transition from pre-conventional to conventional levels. Abstract and formal thinking begins at third person perspective, and increases gradually or levels off after that, so we would expect that certain stems are more sensitive to transitions in this part of the spectrum. In general we would expect that, to a weak but statistically significant degree, certain sentence stems are better at signaling changes in specific levels. Murray (2020) includes item response theory analysis that shows which stems do in fact load for higher vs. lower levels (i.e. "item difficulty"). However, in general, the data indicate that all of the stems are of comparable difficulty, and that every stem elicits responses from across the developmental spectrum, as is intended by the SCT design.

Torbert & Livne-Tarandach (2009) report on variations of the WUSCT that have evolved into Cook-Greuter's MAP and Torbert's LDP and GLP instruments. Cook-Greuter and Torbert modified Loevinger's protocol to "omit a number of gender-based items and, include work and leadership-related stems" (IBID, p. 132). Torbert's LDP is also shorter (24 items) and includes six new stems not in the WSUTC. Torbert & Livne-Tarandach (IBID, p. 134) report that "the responses to the new stems correlate better with an individual’s overall profile rating than responses to the former stems did, thus improving the overall reliability of the measure."
O'Fallon made additional adjustments to stems to derive her General protocol (or "inventory"), the standard set used in her research and consulting before she began branching out into "specially protocols." As described below, modifications were to insure that that stem collection had an equal representation from the "four quadrants" of I/we/it/its as explained later.

**Variations in SCT Length.** As to the length of the SCT: Novy & Francis (1992) compared the split-half versions of the WUSCT (18 items each). They conclude "these results provide empirical justification for those users of the SCT who have the need for shorter, interchangeable, and reliable forms of the test."\(^3\) Holt (1980, p. 909), experimenting with a 12-item short form of the WUSCT found that inter-rate reliability was "at least as good as…reported by Loevinger; and the internal consistency…was quite adequate….Analyses of other data indicate that the short forms are representative samples of the full [WUSCT]."\(^4\) He goes on to say the data show that "an abbreviated form of Loevinger's WUSCT is a reasonably reliable, feasible, and useful instrument for large-scale research...[and is]... a representative sample of the larger instrument, which probably gives substantially the same results" (p. 916). Basic psychometric theory predicts that more evidence will result in better accuracy, so for individually-based assessments, done for coaching or consulting purposes, the full set of items is still recommended, but for research or group-statistical assessments, it would appear that shorter forms are quite valid.\(^5\) New research related to inventory length, analyzed for STAGES data, is summarized later.

**The STAGES Matrix**

The STAGES Matrix is a new model that describes the stages of human perspectives from birth to the latest levels of human development investigated by research. One of the innovations of STAGES is the use of parameters for describing developmental stages. These are underlying attributes that lead to development. Below is the STAGES MATRIX which shows the sequence of patterning of the parameters of human consciousness across 12 levels (or 6 person perspectives).\(^6\) These parameters are arrived at by asking 3 fundamental questions, as shown in Figure 1. We refer the reader to other papers, including Barta's "Psychological Application of the STAGES Model" in this issue, for a description of The STAGES model.

**The STAGES General Protocol: Stems and Quadrants**

Above we mentioned the notion, articulated by Kegan and Loevinger, that the holistic triangulation of contexts needed to measure one's general "center of gravity" should include subjective, objective, and intersubjective (I/we/it) contexts. O'Fallon has extended this notion to

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\(^3\) Westenberg (2004, p. 603) claims that "Several studies suggest that the split-half reliability of the WUSCT…is about .80, and, if disattenuated for the greater unreliability of the two test halves, the correlation between the two halves approached unity."

\(^4\) Browning (1987) used a short, 12-item, form in her study, and found that the short form has inter-rater agreement and internal consistency (alpha) "comparable to those reported by Loevinger" (p. 114).

\(^5\) Holt (1980) also reports that the Cronbach's alpha for the 12-item test was .77, vs. Loevinger's finding for .91 for all 36 items, which is exactly what psychometric theory would predict for a randomly selected subset of 12 items from 36 (p. 915).

\(^6\) The full model includes a third tier for a total of 16 levels, but the third tier is hypothetical and not supported by data.
use Wilber's four-quadrant model: I/we/it/its, where the objective domain has been split into individual and collective objects (matching the subjective domain's split between individual "I" and collective "we"). That O'Fallon's protocols are designed to have a relative balance of stems representing each of the four quadrants. The quadrant categorization of stems is approximate, and is not expected to have a strong influence on the nature of completions — i.e. and subjects can respond to any of the stems in ways that emphasize any of the quadrants. Preliminary research is inconclusive RE whether stems categorized in a given quadrant tend to elicit responses from that quadrant — more research is needed.

**Figure 1.** The STAGES Matrix.

In 2016 O'Fallon revised Cook-Greuter's sentence stems by changing 9 of the original stems to new ones to achieve a relative balance among the quadrants. Adjustments were also made because some of the original Loevinger stems seemed outdated vs. 21st century western cultural norms. Table 1 shows the results. Of the 36 items, there are 8 stems associated with each of the four quadrants, plus 4 stems that are mixed-quadrant. Changed stems are indicated by bold text.

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7 And see a similar 4-domain model by Søren Brier (2013).
8 The determination of stem quadrant is somewhat subjective, as judged by O'Fallon. We do not describe a method defining each quadrant here.
Table 1. General Inventory: Showing New vs. Prior Sentence Stems (changes in bold).

<table>
<thead>
<tr>
<th>Order</th>
<th>Old Protocol</th>
<th>New General Protocol</th>
<th>Quadrant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Raising a family</td>
<td>Raising a family</td>
<td>LL</td>
</tr>
<tr>
<td>2</td>
<td>When I am criticized</td>
<td>When I am criticized</td>
<td>UL</td>
</tr>
<tr>
<td>3</td>
<td>Change is</td>
<td>Change is</td>
<td>UR</td>
</tr>
<tr>
<td>4</td>
<td>A man's job</td>
<td>These days, work</td>
<td>UR</td>
</tr>
<tr>
<td>5</td>
<td>Being with other people</td>
<td>Being with other people</td>
<td>LL</td>
</tr>
<tr>
<td>6</td>
<td>The thing I like about myself is</td>
<td>The thing I like about myself is</td>
<td>UL</td>
</tr>
<tr>
<td>7</td>
<td>My mother and I</td>
<td>My co-workers and I</td>
<td>LL</td>
</tr>
<tr>
<td>8</td>
<td>What gets me into trouble is</td>
<td>What gets me into trouble is</td>
<td>UR/UL</td>
</tr>
<tr>
<td>9</td>
<td>Education</td>
<td>Education</td>
<td>LR</td>
</tr>
<tr>
<td>10</td>
<td>When people are helpless</td>
<td>When people are helpless</td>
<td>LL</td>
</tr>
<tr>
<td>11</td>
<td>Women are lucky because</td>
<td>What I like to do best is</td>
<td>UR</td>
</tr>
<tr>
<td>12</td>
<td>A good boss</td>
<td>A good boss</td>
<td>UR</td>
</tr>
<tr>
<td>13</td>
<td>A girl has a right to</td>
<td>We could make the world a better place if</td>
<td>LR</td>
</tr>
<tr>
<td>14</td>
<td>The past</td>
<td>The past</td>
<td>LR</td>
</tr>
<tr>
<td>15</td>
<td>When they talked about sex, I</td>
<td>Privacy</td>
<td>UL</td>
</tr>
<tr>
<td>16</td>
<td>I feel sorry</td>
<td>I feel sorry</td>
<td>UL</td>
</tr>
<tr>
<td>17</td>
<td>When they avoided me</td>
<td>When they avoided me</td>
<td>LL</td>
</tr>
<tr>
<td>18</td>
<td>Rules are</td>
<td>Rules</td>
<td>LR</td>
</tr>
<tr>
<td>19</td>
<td>Crime and delinquency could be halted if</td>
<td>Crime and delinquency could be halted if</td>
<td>LR</td>
</tr>
<tr>
<td>20</td>
<td>Men are lucky because</td>
<td>Business and society</td>
<td>LR</td>
</tr>
<tr>
<td>21</td>
<td>I just can't stand people who</td>
<td>I just can't stand people who</td>
<td>UL</td>
</tr>
<tr>
<td>22</td>
<td>At times s/he worried about</td>
<td>At times I worry about</td>
<td>UR</td>
</tr>
<tr>
<td>23</td>
<td>I am</td>
<td>I am</td>
<td>UL</td>
</tr>
<tr>
<td>24</td>
<td>If I had more money</td>
<td>If I had more money</td>
<td>UR</td>
</tr>
<tr>
<td>25</td>
<td>My main problem is</td>
<td>My main problem is</td>
<td>UL</td>
</tr>
<tr>
<td>26</td>
<td>When I get mad</td>
<td>When I get mad</td>
<td>UR/UL</td>
</tr>
<tr>
<td>27</td>
<td>People who step out of line at work</td>
<td>People who step out of line</td>
<td>LL, LR</td>
</tr>
<tr>
<td>28</td>
<td>A husband has a right to</td>
<td>A partner has the right to</td>
<td>LL</td>
</tr>
<tr>
<td>29</td>
<td>If my mother</td>
<td>If my mother</td>
<td>LL</td>
</tr>
<tr>
<td>30</td>
<td>If I were in charge</td>
<td>If I were in charge</td>
<td>LR</td>
</tr>
<tr>
<td>31</td>
<td>My father</td>
<td>My father</td>
<td>LL</td>
</tr>
<tr>
<td>32</td>
<td>If I can't get what I want</td>
<td>If I can't get what I want</td>
<td>UR</td>
</tr>
<tr>
<td>33</td>
<td>When I am nervous</td>
<td>When I am nervous</td>
<td>UL</td>
</tr>
<tr>
<td>34</td>
<td>For a woman career is</td>
<td>Technology</td>
<td>LR</td>
</tr>
<tr>
<td>35</td>
<td>My conscience bothers me if</td>
<td>My conscience bothers me if</td>
<td>UR</td>
</tr>
<tr>
<td>36</td>
<td>Sometimes s/he wished that</td>
<td>Sometimes I wished that</td>
<td>UL, UR,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>LL, LR</td>
</tr>
</tbody>
</table>
Specialty Inventories: Description

As mentioned, the STAGES model allows for efficient introduction and experimentation with new sentence starters. O'Fallon and colleagues have developed a number of "specialty protocols." The first six of these, which replace 6 of the General protocol stems with theme-specific stems, have been validated for internal consistency: leadership, love, education, and climate change, psychological reflection, and a children's version of the SCT. Reliability analysis results are in the Results section later.

These spaciality inventories were developed separately and at different times between 2016 and 2020. With each specialty inventory, we worked with a consultant who specialized in that domain. We worked with that consultant to design 6 stems targeted at that domain, and in deciding which of the 6 General inventory stems should be replaced. Through this process we maintained the goal of having adequate stem representation among the four quadrants. Sometimes stems were spot-tested on a small number of subjects to check for potential problems (such as common misunderstandings), before the final set was decided upon.

Why create specialty protocols? We are testing the person perspectives that people take on these different areas. For example, what is a first, second, third, fourth, fifth, sixth person perspective on leadership; on love; on education; on climate change? For example on the Love inventory Britt and O'Fallon were able to categorize the specific ways that people at each person perspective understood the topics of love. In the climate change area this might be helpful in planning, policy decisions, or communications that are meaningful to various audiences. Specialty inventories are created for several reasons:

− Quantitatively, they allow a researcher or leader to gauge meaning-making (developmental) levels for a specific theme, for specific populations or sub-populations;

− Qualitatively, they allow for research into the concepts and themes by which individuals understand some domain, e.g. climate change;

− Finally, they allow for the wording of an assessment to appear more familiar or comfortable for given test-taking audiences. For example, if one is assessing employees in an organizational transformation research project, one may want to remove questions about parents or personal relationships which may strike the subjects as too intrusive.

Table 2 shows the new stems designed for each of the six specialty inventories we validate below: leadership, love, education, psychological reflection, climate change and a child inventory which is given orally. In addition, we are currently working with domain experts to design additional specialty protocols in these areas: relationships, religious beliefs, spirituality, money, hope, dementia, ethics, and parenting.
**Table 2.** New stems for the specialty inventories.

<table>
<thead>
<tr>
<th>Inventory</th>
<th>New stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>A good organization</td>
</tr>
<tr>
<td>Leadership</td>
<td>These days progress means</td>
</tr>
<tr>
<td>Leadership</td>
<td>Working with other people</td>
</tr>
<tr>
<td>Leadership</td>
<td>We could make organizations better if</td>
</tr>
<tr>
<td>Leadership</td>
<td>When developing strategies...</td>
</tr>
<tr>
<td>Leadership</td>
<td>These days, a career</td>
</tr>
<tr>
<td>Leadership</td>
<td>A good leader</td>
</tr>
<tr>
<td>Love</td>
<td>Love changes when</td>
</tr>
<tr>
<td>Love</td>
<td>Loving other people</td>
</tr>
<tr>
<td>Love</td>
<td>Love</td>
</tr>
<tr>
<td>Love</td>
<td>Business, society, and love</td>
</tr>
<tr>
<td>Love</td>
<td>When I am in love</td>
</tr>
<tr>
<td>Love</td>
<td>My main problem with love is</td>
</tr>
<tr>
<td>Education</td>
<td>These days, teaching</td>
</tr>
<tr>
<td>Education</td>
<td>My students and I</td>
</tr>
<tr>
<td>Education</td>
<td>A good educator</td>
</tr>
<tr>
<td>Education</td>
<td>Education and society</td>
</tr>
<tr>
<td>Education</td>
<td>Students who step out of line</td>
</tr>
<tr>
<td>Education</td>
<td>A teacher has the right to</td>
</tr>
<tr>
<td>Climate change</td>
<td>The environment</td>
</tr>
<tr>
<td>Climate change</td>
<td>Climate change is</td>
</tr>
<tr>
<td>Climate change</td>
<td>Regarding climate change, I</td>
</tr>
<tr>
<td>Climate change</td>
<td>My biggest concern about climate change</td>
</tr>
<tr>
<td>Climate change</td>
<td>People who deny climate change</td>
</tr>
<tr>
<td>Climate change</td>
<td>Actually, climate change...</td>
</tr>
<tr>
<td>Psychological</td>
<td>My friends and I</td>
</tr>
<tr>
<td>Psychological</td>
<td>A healthy person</td>
</tr>
<tr>
<td>Psychological</td>
<td>Sex</td>
</tr>
<tr>
<td>Psychological</td>
<td>Psychology and society</td>
</tr>
<tr>
<td>Psychological</td>
<td>An intimate partner has the right to</td>
</tr>
<tr>
<td>Children's</td>
<td>My family</td>
</tr>
<tr>
<td>Children's</td>
<td>Grandparents</td>
</tr>
<tr>
<td>Children's</td>
<td>These days, school</td>
</tr>
<tr>
<td>Children's</td>
<td>My parents and I</td>
</tr>
<tr>
<td>Children's</td>
<td>A good child</td>
</tr>
<tr>
<td>Children's</td>
<td>When they didn't let me join in</td>
</tr>
<tr>
<td>Children's</td>
<td>Bullying could be stopped if</td>
</tr>
<tr>
<td>Children's</td>
<td>Children and parents are lucky when</td>
</tr>
<tr>
<td>Children's</td>
<td>Children who step out of line</td>
</tr>
<tr>
<td>Children's</td>
<td>A parent has the right to</td>
</tr>
<tr>
<td>Children's</td>
<td>A child has the right to</td>
</tr>
</tbody>
</table>
The six validated specialty inventories came about as follows:

- The Leadership/organizational/business inventory was initiated by John Wood and Tamara Androsoff, PhDs, an OD consultant and coach who works with the STAGES model – with the goal of including sufficient stems addressing leadership and organizational issues.

- The Love inventory was pioneered by Marj Britt PhD, who is a Unity minister who became interested in the STAGES developmental model. Marg’s specialty is the area of personal and spiritual manifestations of Love, and she wanted to create a Love inventory.

- The Education inventory was initiated by Abigail Lynam, a college professor who teaches courses on educational theory, sustainability, and developmental theory.

- The Climate Change inventory was initiated by Gail Hochachka, a researcher in the area of Climate Change, who used the new Climate Change inventory in her dissertation study (see her report in this journal issue).

- The psychological reflection inventory was initiated by Mark Forman PhD and Kim Barta, MA. Both psychotherapists. It removes stems added to the General protocol about work and society, to maintain a focus on psychological/therapeutic themes.

- The children’s inventory was co-created by Jennifer Haynes, Kim Barta and Terri O’Fallon. Jennifer is the principle of the integrally-informed Brisbane Independent School working with children from preschool age through Junior High, approximately. It is mean to be administered orally to children in that age range.

**Method: Reliability assessment**

As mentioned above, unlike prior models, the STAGES theory and scoring method allows for easy substitution of new stems. However, for any new protocol, one must establish the new stems, each and as a whole protocol, maintain psychometric validity. We assess the reliability of the SCT using the standard Cronbach’s Alpha measure of internal consistency (George & Mallery, 2003). A commonly accepted rule of thumb for describing internal consistency is as follows (IBID):

<table>
<thead>
<tr>
<th>Cronbach's alpha</th>
<th>Internal consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>α ≥ 0.9</td>
<td>Excellent</td>
</tr>
<tr>
<td>0.9 &gt; α ≥ 0.8</td>
<td>Good</td>
</tr>
<tr>
<td>0.8 &gt; α ≥ 0.7</td>
<td>Acceptable</td>
</tr>
<tr>
<td>0.7 &gt; α ≥ 0.6</td>
<td>Questionable</td>
</tr>
<tr>
<td>0.6 &gt; α ≥ 0.5</td>
<td>Poor</td>
</tr>
<tr>
<td>0.5 &gt; α</td>
<td>Unacceptable</td>
</tr>
</tbody>
</table>
Our statisticians determined that a sample of 20 surveys was sufficient to validate the reliability (internal consistency) of any new protocol.\(^9\) Later we will give the reliability metrics for each of six new inventories (protocols) that have been designed and tested. But first we report on the reliability of the General Protocol, upon which the specialty protocols are based.

Following inventory design, we worked with the specialist to recruit 20 or more volunteers to take the assessment. Diversity of backgrounds and demographic characteristics was intended, but not strictly monitored. Surveys were scored by a certified STAGES scorer using the standard scoring manual/method. Then our statisticians ran the internal consistency statistics on the data set. In all cases, as reported below, the first version of the new inventory was satisfactory – i.e. there were no outlier stems that needed to be re-designed.

In the results for each inventory, we show the Cronbach's alpha for the inventory as a whole, for the inventory without the new stems, and for only the new stems. Note that Cronbach’s alpha values are naturally higher when there are more stems, and values for different numbers of stems are not directly comparable. That is, the internal consistency for 6 stems is always lower, but this does not necessarily mean that the items are worse then the other items. One would have to compare Cronbach’s alpha values between the same number of items for a direct comparison.

There are two additional types of psychometric analysis possible with each new inventory. One removes each item in turn, and checks the Cronbach's alpha of the remaining set of 35 stems – repeated for each of 9 new stems. We decided to only use this analysis when the overall reliability score is low, to check on outlier stems, but we have not needed to do this thus far. In addition, our statistician reports include a Spearman correlation dendrogram (Sokal & Rohlf, 1962) that can be used to reveal hierarchical clustering patterns, i.e. similarities or correlations, between stems. These reveal in general that there are no outlier stems, and we have not yet used these analyses for deeper interpretations, so we do not include them in this paper.

**Results**

**The General Inventory**

Table 4 shows results of assessing the internal consistency of the new (now standard in the STAGES assessment) General protocol. It was validated vs. the prior "old" protocol. We compared 940 surveys based on the old protocol with 351 based on the new protocol.

<table>
<thead>
<tr>
<th></th>
<th>Old ((N=940))</th>
<th>New ((N=351))</th>
</tr>
</thead>
<tbody>
<tr>
<td>All 36 stems</td>
<td>0.98</td>
<td>0.97</td>
</tr>
<tr>
<td>Common stems</td>
<td>0.97</td>
<td>0.96</td>
</tr>
<tr>
<td>Changed stems</td>
<td>0.91</td>
<td>0.89</td>
</tr>
</tbody>
</table>

\(^9\) Our statistical consultant for this project is Moni B. Neradilek from The Mountain-Whisper-Light Statistics in Seattle, WA.
In a test of removing each item and checking the Cronbach's alpha of the remaining set of 35 stems, repeated for each of 9 new stems, the resulting value varied from 0.9688 to 0.9692.

In related research reported on in this journal issue ("Investigating the Validity of the Ogive Aggregation Method, Including the use of Rasch Analysis, for the Sentence Completion Test and the STAGES Model") we use item response theory to assess overall reliability of the test, and look for item outliers (see subsections "Test length," "Item difficulties and item standard deviations," "Overall test strength," "Item discrimination," and "Summary/fit table; and discrimination strata"). These results reiterate the high reliability scores for the full inventory, and the acceptability of each individual item, as indicated above. (However, the analysis does show that the "I am" stem stands out as being the least correlated with other items.)

Conclusion. The overall internal consistency of both the old and new general protocols as measured by the Cronbach’s alpha statistic was excellent (0.98 and 0.97, respectively). The internal consistency of the changed stems in the new protocol was good and only slightly smaller than the internal consistency of the changed stems in the old protocol (α 0.89 vs. 0.91). Through the method of deleting each new stem one at a time, we confirm that each new stem does not effect the overall consistency of the protocol.

Specialty Inventories: Reliability

Next we describe reliability analysis of the six new ("specialty") inventories: leadership, love, education, psychological reflection, climate change, and a children's inventory. For the children's inventory, 53 children, age range 4-13 enrolled in a progressive elementary school in New England, gave verbal answers to in-person prompts; recordings of their answers were transcribed. The data is shown in Table 5

<table>
<thead>
<tr>
<th>Table 5. Cronbach's alpha internal consistency values for specialty protocols.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cronbach’s alpha</strong></td>
</tr>
<tr>
<td>Domain</td>
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<tr>
<td>N in study</td>
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<tr>
<td>New stems (of 36)</td>
</tr>
<tr>
<td>α All 36 stems</td>
</tr>
<tr>
<td>α General prot. stems only</td>
</tr>
<tr>
<td>α New stems only</td>
</tr>
</tbody>
</table>

Conclusions: For the five specialty inventories excluding Children's:

- the overall internal consistency was excellent (α 0.95 to 0.97).
- the internal consistency for the new stems as a group was good (α 0.80 to 0.85).
- For the Children's inventory:
— the overall internal consistency was good (α 0.88).
— the internal consistency for the new stems as a group was questionable (α 0.63).

Overall, these results not only show evidence about the reliability of the particular specialty inventories, but it is also show evidence that the SCT is quite robust to the addition of new stems, assuming they are well-written. It also gives evidence that even a short test containing only six specialty stems would be a psychometrically reliable instrument.

The Children's protocol is a special case. First, there were almost twice as many new stems as the other specialty inventories. Second, the assessment was done face to face and verbally. Third, the pre-existing (general protocol) stems by themselves show a much lower alpha (though still "good") vs. the other protocols, indicating that there was probably much more variation in the children's responses than in adults' (see O'Fallon's paper on the Children's protocol in this issue). Thus, though the alpha of the new stems by themselves was unacceptably low, it is not clear whether this was because of the nature of the stems or the nature of the subject population.

**Inventory size analysis**

Above we summarized prior research suggesting that the SCT worked well with shorter versions. Here we evaluate inventory length variation with the STAGES assessment particularly.

**A shorter, 16-stem, inventory.** Given the strong results on the reliability of the STAGES SCT mentioned above, we decided to experiment with a shorter inventory containing 16 stems. This gives us an inventory that subjects can take in half the time, which is important for some applications.

We selected 16 stems from the General inventory which we had previously gotten a high Cronbach’s alpha on. We chose sentence starters that would point to each of the four quadrants. The stems were: 1, 2, 5, 6, 8, 18, 19, 20, 21, 23, 25, 27, 28, 30, 34, 35 (from Table 1). The Cronbach's alpha for the 16-item inventory (0.98) is in the "excellent" range.

**Cronbach’s-Mesbah analysis.** The paper "Investigating the Validity of the Ogive Aggregation Method, Including the use of Rasch Analysis, for the Sentence Completion Test and the STAGES Model" (Murray, this issue) includes additional analysis related to test length, which we summarize next. Figure 2 shows a Cronbachs-Mesbah curve illustrating the Cronbachs-alpha score for successively fewer test stems (with the worst correlated items removed first). It shows that for a half-item test the reliability is still excellent (.95); and that even with 10 stems, the SCT has very good reliability (.92); and that even at 5 stems the reliability is quite good (.85).

From a purely statistical perspective, the SCT doesn’t need so many items (assuming this pattern was also true of the WUSCT or MAP variations of the SCT – though we don't have item-level data for those). However from a qualitative research agenda, and for coaching and debrief purposes, a full set of 36 responses is important for identifying themes and patterns in the detailed reports and coaching sessions given for individualized SCT assessments. Thus for the
purposes of sharing qualitative information, and not just a final statistical score, the longer inventory is preferable.

Figure 2. Cronbach-Mesbah curve of alpha vs. number of items.

Conclusions

Over the past 4 years we have experimented with the efficient and effective adaptability of the STAGES SCT Inventory. Beginning with the alteration of the General Inventory, we learned that we could change up to 9 stems all at once in a 36 item inventory, and still have very high internal consistency. This prompted us to experiment with other uses of this process and the idea of the specialty inventories was born.

The resultant findings indicate that the STAGES model allows for efficient introduction and experimentation with variations on the SCT, including new sentence starters and length variations. O'Fallon and colleagues have developed and evaluated "specialty protocols" in these domains: leadership, love, education, and climate change, psychological reflection, and a children's version of the SCT. Most of the specialty protocols replace 6 of the General protocol stems with theme-specific stems. However generally we have an indication that we can change up to 9 stems as depicted by our research on the new General inventory. We are now experimenting with variations on this theme.
We have shown results for internal consistency studies of (1) the STAGES General Protocol, (2) Six specialty protocols, and (3) a shorter 16-item inventory. We have shown that for all of these inventories there is excellent internal consistency (excluding the special case of the Children's study).

Our research not only gives evidence about the reliability of the particular specialty inventories, but also shows evidence that the SCT is quite robust to the addition of new stems, assuming they are well-written.

Our research also shows that the STAGES assessment (and the SCT in general) is psychometrically valid for much shorter inventories, as low as 10 and even 5 items for certain applications.

These statistical results give us an underlying confidence that these variations on the regular inventory are internally consistent.

Once we have this assurance we then do the qualitative research that allows us to extract meaning from what the test takers actually say. For example, we have done qualitative research on the Love inventory. We selected all the Love stem scores at each developmental level and created categories out of their responses. The resultant understanding points to the perspectives people take on Love at each developmental level. As well we can see the evolutionary trajectory on the test takers views on love. The addition of the qualitative research can support curriculum development, policy development, planning, and particular interests of various audiences.

**Future Research**

Based on the research on adapting the General inventory in length and specialty there is further research we aspire to.

1. We are currently working with domain experts to design additional specialty protocols in these areas: relationships, beliefs related to a specific religious tradition, spirituality, money, hope, dementia, ethics, and parenting.

2. Since we can see that there is a variation from 5 to 9 stem changes and still maintain internal consistency, we will be experimenting with variations of these numbers for other specialty inventories.

3. Since the 5-9 stems isolated from the general inventory still have a “good” internal consistency we will look into using only the specialty stems to indicate the developmental perspectives that people take on the specialty only. This would involve much shorter inventories for people to take which might bring a research advantage, if there is enough material to do qualitative research.

4. Once the quantitative research is complete, qualitative research yields more useful and practical day to day value for our clients. Thus we will be continuing to do serious qualitative research on all specialty inventories and to perfect the relationship between the
quantitative and qualitative interface for the benefits of our services to others. As well, we will look into how to develop curriculum, planning, policy, and service to each specialty area and the audiences that resonate with them.

References


Murray, T. (2020) Investigating the Validity of the Ogive Aggregation Method, Including the use of Rasch Analysis, for the Sentence Completion Test and the STAGES Model. *Integral Review*. This issue.


Exploring Integral Polarity Practice, in relationship with the STAGES Matrix

Trish Nowland¹

A conversation with John Kesler² and Thomas McConkie³ with Tom Murray and Trish Nowland

Introduction

This piece is written by myself as a participant in a conversation among John Kesler, founder of Integral Polarity Practice (IPP); Thomas McConkie, John’s first IPP successor, and executive director at IPP Institute, as well as founder of Lower Lights Sangha in Salt Lake City; and Tom Murray who has worked with Terri O'Fallon in the context of STAGES as discussed below for about six years. Tom and I have also participated in some of John’s IPP workshops over the last 10 years, and are Generating Transformational Change program graduates, as is Thomas. The dialogue was organized by Tom in mid-November, 2019, in the context of the Special Edition of Integral Leadership Review focused on the STAGES model. I’ve also benefited from co-curating a space for folks in the South Pacific to share in IPP as facilitated by John and Thomas, as you will read below, on occasions since 2012.

¹ Trisha Nowland presently convenes Sydney Integral, and has supported the Integral Polarity Practice South Pacific community since 2012. With diverse interests spanning mathematics, philosophy, and psychology, she has recently moved on from a 15-year career in information systems in finance to begin practice as a psychologist, working with communities at the margins in Sydney’s suburbs. She is a Generating Transformational Change (GTC) graduate, and has in the last year completed a doctorate which developed a set-theoretical model for integrating qualitative and quantitative methods in psychology research. She currently works as a researcher in Australia’s non-profit sector, and remains as a passionate reader in continental philosophy, psychoanalysis, Marxism, and Vajrayana Buddhism. nowlandtr@gmail.com

² John T. Kesler is a theorist, teacher, activist and attorney residing in Salt Lake City, Utah. He developed the unique awareness and life practice called integral polarity practice (IPP), which he teaches internationally (see theippinstitute.com). He was a founding member of Ken Wilber's Integral Institute, and is certified to evaluate and coach using the STAGES developmental model. Kesler, an activist in civic and citizen engagement, served as Communities Editor of the National Civic Review, and is founder and president of the Salt Lake Civil Network, which models and mentors integrally informed interconnected personal, community and global flourishing in Utah and internationally. j_kesler@woodburycorp.com

³ Thomas McConkie is the founder of Lower Lights School of Wisdom and has a passion for the world's Wisdom traditions. Raised LDS, at 18 years old he discovered Buddhism, which remains a wellspring of inspiration over 20 years later. He is trained as a developmental researcher, facilitator, and mindfulness teacher. He hosts the Lower Lights Sangha in Salt Lake City, Utah with the intention of providing a generative environment where seekers of diverse faith orientations can discover new depths and heights in their evolving personhood. tmcconkie@gmail.com
Integral Polarity Practice (IPP) is a unique awareness, life, and group practice designed to support a person in “waking up” and “growing up”, as well as in developing healthy integration of body, emotions, mind, and Spirit. IPP itself integrates developmental theory, meditative techniques, virtue practices, and voice dialogue. Developed by John Kesler, it is influenced by John’s experience with the Big Mind process, and the group facilitation of IPP will be familiar to anyone who has participated in Big Mind. John was one of the first to be certified as a large group practice facilitator by Zen master Genpo Roshi, the founder of Big Mind. Big Mind is a participatory process that enables a person to access non-dual awareness and other transcendent states through sharing in collective voice dialogue, a Jungian therapeutic technique. In this process, a projected personification of particular qualities or attributes is encouraged to ‘speak’ from its perspective through the diverse voices within the group, providing an opportunity for individuals to interact with that perspective in a way that they perhaps never have before. The Big Mind Process may also be practiced one-on-one, or self-facilitated.

The appendix to this article has diagrams of the IPP stages and structure. IPP is also described at www.theippinstitute.com. The video recording of the dialogue that informed this article can be found at http://bit.ly/stagesippvid, with an audio-only version at http://bit.ly/stagesipp1.

John designed IPP using an approach to person-perspectives articulated by Susanne Cook-Greuter, Ken Wilber, and most clearly in Terri O’Fallon’s STAGES model. This work is itself a progression from earlier work by Suzanne Cook-Greuter (1994) on the ego development scale originally found in Loevinger and Blasi (1976). Also knitted in to IPP are perspectives from other spiritual traditions, including references developed from John’s own background as a Mormon bishop. The practice stands in some ways as a meta-lineage framework, incorporating qualities and virtues that are relevant to the practices and principles inherent in an array of spiritual/perennial traditions. Ultimately, John describes that IPP’s principles and structure flowed out of him incrementally over a number of years, in the context of facilitating others in practice, as well as through his own meditation and life practice. In what follows, we trace the structure of IPP, its qualities as a voice dialogue process, the specific connections to and divergences from Terri O’Fallon’s STAGES model, some brief comparisons to other similar offerings in the space and finally looking to the future opportunities that speak back to us at this point. We start firstly with the question, for those who have not experienced it before - what is Integral Polarity Practice?

The Basic ins and outs of IPP

The figures at the end of this article show the IPP model diagram. The first shows the IPP level sequence, and the second shows a detailed view of the sub-processes for one of the levels. The development of IPP included developing primary polarities that mark something of the resolution to primary developmental challenges that are implicit in any single developmental stage, similar to Erik Erikson’s developmental crises (Erikson, 1959). In Erikson (1959) the model of ego development involves an individual navigating opposing forces that are proposed as present at each developmental level, to achieve what Erikson describes as “potencies” (see Capps, 2014). The polarities in IPP have organically emerged as described above, and have changed through time. These changes have been both consistent with and yet are distinct from the evolution of the STAGES model through time. For example, the earliest stages of the
STAGES model are not as well articulated as later stages, as the development of this model has relied primarily on linguistic analyses of responses from adults, involving responses by participants to sentence stem completion tests, using written language (see more detail on this below). Through IPP, John and the participants in the IPP process have made possible an articulation of pre-verbal polarities, which can be directly connected to sensory experience (for example, expansion and contraction, and focus and openness, at the lowest levels of ‘0.0 Life’ and ‘Mind’, respectively).

IPP borrows stage designations from the STAGES model: 1.0, 1.5, 2.0, ..., 6.0, 6.5; for the 1st through 6th Person Perspectives (PP) defined in STAGES. It also includes a 0th PP (not explicitly described in STAGES) and a Unitive tier (7th and 8th PP, not shown in the IPP figure; which are in advanced versions of the STAGES model). Perusal of the ‘Polarity Overview’ graphic also reveals an important aspect of IPP beyond its articulated developmental structure and the use of polarities - this is the notion of a still point, from within the specific developmental polarity. This still point becomes an orienting viewpoint for that specific developmental level, and the still point itself has a dual or polar aspect - it reflects bringing the energy of the highlighted polarity into stillness, as well as a deepening of the potency which may be achieved in virtue of recognition of the negation or emptiness of the potency. What this means is, to traverse a developmental polarity well, we must be able to see into and experience both the negation and emptiness of that developmental level, as well as have a sense of experiencing the fullness of the essence of a polarity.

The practice is intended to help folks create a peaceful center, and to access their deepest wisdom, compassion and insight, and to live a fulfilled life. It is intended as a complement to other practices and traditions. Another way to say this is that it represents a meta-lineage framework - supporting how traditions cultivate centeredness, and basic human virtues. IPP makes visible possible virtues related to all developmental levels, and allows a deeper understanding of the specific virtues that traditional lineages cultivate. Since the IPP patterns for working with any polarity are identical, these same patterns can be applied to the endless polarities we experience in life in addition to the primary developmental polarities – in the process of waking up, growing up and becoming more integrated and effective in the world.

**Description of IPP in Practice**

Both John and Thomas note that there is an incredible amount of rich material available in the earlier polarities, and hence many of the group practices to date have oriented to these structures. As a member of the ongoing South Pacific IPP group which has practiced through the southern hemisphere winter, usually on a fortnightly basis since about 2012, we can say that about 80% of our sessions have been on polarities at 4.0/Context Aware’, and below. Concrete or earlier polarities tend to be information-rich or ‘juicy’ - much of our psychological shadow, or unintegrated aspects of our persona may be deposited in the concrete tier (0th, 1st, and 2nd PPs) and contemplation on this developmental range offers repeated insights. We can work meditatively with these in group and also as life practices - similar to working with weights - some exercises are much more difficult to access and perform, but vitally, repetition and engagement of the limbs builds muscle. The early polarities seem to be the ones where our individual experiences are most sharply and clearly differentiated, where insights gleaned from
individual or group practice allow us to literally ‘see’ things differently. In the voice dialogue practice, we find it is often the case that the other side of the polarity becomes available from literally within the practice, embracing the first side. What becomes possible in this moment is witnessing the way that the terms and experiences mutually define, refine, and permeate each other. This leads in an experiential sense to appreciating the still point, the gift of literally presenting an embodied appreciation of the emptiness and fullness and ultimate unity of both sides of the polarity, at the same time.

It is possible to notice a pattern with the still points in the IPP chart, with an empty node, which is typically the location of the absence of the developmental level (for example, ‘no achieving’ for 3.5/Achiever), and then a fullness node, which is a transcending of that developmental level, for example, ‘completion’, for 3.5/Achiever. These mark a foundation-to-causal shift, for these experiential states. The still points are described by John and Thomas (and are experienced as a participant in an IPP session) as an experience of causal awareness – the subtle dance of the polarities and/or the concreteness of the terms becomes able to be inhabited from a place of utter stillness. The unification of the poles creates a quality of non-duality; the unity of the fullness and the emptiness of the still point a more complete non-duality; and then a collapse of one’s witnessing awareness into that, an even more complete non-duality. All of this is part of a protocol for working deeply with any polarity. What is invited is both a witnessing and an embodiment experience, founded in a view of mutuality of difference, and indistinct union, both across polarities and across the perspectives that are introduced in real-time, by participants with the ultimate collapse of the witnessing.

The particular trajectory for experience nurtured in this dynamic is informed by the Big Mind non-dual experience made available in the original teaching of Genpo Roshi, but now contextualised for each developmental level. Dwelling in the experience of the still points gifts one with the accompanying experiential appreciation of that stage’s virtues. The virtues are an unfolding which expresses the quality of the relationship for the specific polarity in question. There is always a primary virtue of Becoming (with Eros energy) and of Doing (with Agape energy) which arise out of each still point. For instance, the fullness still point, Transcendent Abundance, for the polarity of seeking (desire/aversion) automatically yields the Virtue of Becoming of Transcendent Gratitude, and the Virtue of Doing of Transcendent Generosity.

This is meant to facilitate deep engagement with wellbeing, and a deeper embodied understanding of the polarity itself. What unfolds is something that, on the surface, is a seeming shutting down the whole function of the polarity (i.e. if I only feel Abundance and Fullness and/or the emptiness of non-seeking, I have no need to desire or move away from anything). This polarity of seeking sits as a foundational polarity of our everyday being - we learn, our whole lives, and seek to move towards or away from things - essentially always coming from a place of deficit. In practice, if we are present in the moment, and allow in a sense of an absolute Abundance, it is possible to see more clearly what is appropriate to seek from our deepest place of Wisdom and Compassion. We are both more free to seek, and to not seek. This facilitates total presence with either state, without being locked in ego defenses and ego needs. The still point is always a place of Beingness, in this place of availability of the whole spectrum of one’s being, one can find the source of wisdom and awaken through the portal the more encompassing aspect of the more-than-self.
As Collective Voice Dialogue

IPP can serve in the modes of both a life practice (something supporting deeper engagement in everyday activity), and as an awareness practice that builds specific skill-sets in attending within distinct perspectives, which comprise their own polarity to be fully integrated. In a group setting, the process of voice dialogue lets us access the polarities more deeply. There is a freedom to acknowledge how much of a particular polarity side would be medicinal in any given circumstance. For instance, personal agency in the territory of any stage (or polarity) is deepened in a distinct way in a collective setting (vs. individual). We may see more clearly in the collective what it is possible to do, individually. Thomas describes drawing on IPP in working with distinct aspect of his personal relationships in life practice, drawing out perspectives that otherwise may persist as irritations of a sort to the psyche - those qualities of another that we’re both drawn to, and distanced by. Everything below one’s center of gravity represents a therapeutic opportunity - a re-encounter – and bringing one’s higher awareness in offers the opportunity of embodying the very foundations of one’s Being with increasingly transcendent sensibilities.

John notes that the virtues of the still points emerged initially from intuition, and then groups in dialogue settings shared feedback about them - so the model is a product of both individual and collective experience. The virtues which emerged out of the first eight perspectives pretty much align with the traditional virtues as well as positive psychology strengths - collective wisdom seems to arrive in the field of collective experiencing - the practice framework gives us something to guide us, but there is something dynamic that seems to occur in the shared space. In groups, by making the dynamics visible, with a basic understanding of the territory, we are more likely to notice and detect virtues when they are present in the everyday world. Even subtle presencings can be attuned in a new way in conscious awareness, via the practice.

From a collective practice standpoint, it can be noted that everyone has blocks which occur in different ways. Approaching the virtues of IPP can help us to actually access the still point, even if there is a specific block around one of the polarities, and find a way to navigate then to the less visible pole. The virtues, still points, and polarities then are mutually reinforcing. Also of note is the sense that vices can emerge when one is blocked from a still point or virtue - for a mapping of these, it is possible to consult the more detailed charts (see ‘Polarity Charts’ at the bottom of this page: https://theippinstitute.com/resources).

From the facilitator’s perspective, it is possible to note that often a particular voice will speak up in a group voice dialogue session. Thematic consistencies from cross-group experience unfold which the facilitator can then draw upon, in practice. Facilitators can support/induce opportunities for causal state experience, which were not previously available in the room. The structured personality system marked by the STAGES and IPP softens in this presence, so the tail can wag a large dog, in a way. There can be found an amplified field-effect, and the wisdom that is already available in the collective or group is noted by John and Thomas as tending to ‘spout out’, and make itself known.
Historical Relationship between IPP and STAGES

John developed the essence of IPP initially by framing developmental polarities related to stages used most often by Ken Wilber and then through an encounter with Suzanne Cook-Greuter’s work with the Leadership Maturity Framework. Note that Beena Sharma has since developed a version of Suzanne Cook-Greuter’s developmental training called “Integrating Polarities” (developed independently of IPP; see https://integrallife.com/integrating-polarities-training/). More is described about the link between Beena’s work and IPP, below. For IPP, John became acquainted with Terri O’Fallon through Suzanne. Terri was formalizing the STAGES model at that time, working within the Pacific Integral (PI) organization. John was invited by Terri to be one of four individuals including Terri to engage in the first scoring of sentence completions using the STAGES methodology in a research context over a period of two years (that version eventually become known as the MAP). John was one of the first to be certified in STAGES scoring and debriefing. IPP does not purport to represent STAGES fully, but there is an intentional close alignment - including the specific focus on more granularity in the meta-tier than in other developmental models.

Meta-elements that Span IPP and STAGES

“Integral Thematic Practice” was the original early name of IPP, and the early focus of the practice was oriented toward five themes referred to as ground, concrete, subtle, causal and integration phases, which manifest in states, stages, types, and modalities of life and spiritual practice, etc. The STAGES model today carries this thematic throughout the patterns in the tiers. John notes for instance that the 5 Buddha families of personality types carry the same themes (see https://tinyurl.com/vjm8yhk) and that they are otherwise pervasive in various aspects of many Buddhist and Vedantic schools. These five themes turn up in multiple interpenetrating dimensions beyond our conscious ability to integrate, and so we find ourselves in a holistic aesthetic of integrating these interpenetrating thematic cores – one might say in an ongoing jazz composition of life. Over time John noticed that the pervasive thematic elements of the practice are most accessible to only advanced practitioners, and changed the name of the practice to highlight its most obvious structural element: polarities. Yet these thematic elements are central in framing a new full four stage tier prior to 1.0 and a more detailed four stage unified tier, which are elements of what might be called IPP 2.0 to be shared in late 2020 or early 2021.

Another theme that traverses both STAGES and IPP is an appreciation of both the evolutionary and “involutionary” modalities of awareness. Evolutionary or ascending through Eros is associated with development and greater complexity and oneness, but practicing and embodying the involutionary current through Agape from a prior no-dual unity makes possible the awareness that we ourselves are expressions the divine or the absolute. In involutionary terms, polarities emerge from that prior unity, which make obvious experientially that one pole is inherent in the other (in a sense the poles arise out of the still point, in contrast to seeing the still point emerge from the relationship between the poles). An example of this in the involutionary practice is that the virtues of Transcendent Joy and Transcendent Sorrow both arise from unqualified Transcendent Love and one cannot exist without the other. Christ coming to be on earth is a symbol of both Transcendent Joy and Transcendent Sorrow, in Love. In the involutionary practice this just flows in the person’s awareness stream, rather than being
articulated, as appreciable differences. In this way, IPP helps guide an experiential understanding of the broad possibilities that accompany the flow of Love, for example. The involutionary practice presumes stabilizing in non-dual awareness and is hence an advanced practice, and the embrace and oneness of the Eros and Agape, of evolution and involution are the final polarity practice of IPP.

**Differences between IPP and STAGES**

We can note that the most foundational polarities in IPP (0.0 and 0.5) and as further expanded and developed in IPP 2.0 are not found in the STAGES model and yet are implicit in STAGES theory. For example, the foundational 0.0/Life polarity is one of physical expansion and contraction. This works with the concrete poles as well as subtle flow between them, into an experience of the causal still point of profound relaxation. This is a very direct example of where access to states is available all of the time, and these states became structural elements of the polarities at the different stages in STAGES. It may, for later levels, be a requirement of development to actually continue to hold the polarity and work with its wisdom from multiple perspectives as relevant to the stages, but the experience of existing in a way calibrated by polarity such as that of physical expansion and contraction is available at all levels.

The development of these earliest polarities, prior to the development of verbal and linguistic skills, speaks to and for our experience simply as beings, which we share with all animals and yet by bringing our highest awareness to these polarities they provide a framework for profound embodiment, enrichment and growth. Drawing on Vedantic understandings of physical functioning and sentience, we can note for example that expansion and contraction need to be available for consciousness to come into living, as is available even for one-cell organisms (Bainbridge Cohen, 1993). The basic pattern of expansion and contraction is foundational for the most primitive of life forms, and is true even for plants. Bringing the highest awareness to this most foundational of experiences brings forth an opportunity to touch into the Ultimate, in terms of a unifying principle, something foundational for all grounded in the still point and the virtues of Transcendent Acceptance and Transcendent Life Force. Both IPP and STAGES allow for this fluidity - i.e. they allow one to be informed of, and to engage in, a profound mystical experience - incredible discoveries are continually available in those spaces. In following Loevinger, Cook-Greuter and Kegan, the STAGES approach tends to address “meaning-making” as it manifests explicitly and verbally, vs. the more experiential non-verbal core of the experiences reached in IPP.

Kim Barta, who runs STAGES International with Terri O’Fallon, has had a vital role in bringing Terri’s work alive in these early polarities, and includes the 0.0/Life and 0.5/Seeking polarities in his presentations. John notes that across developmental psychology as articulated in integral spaces, there remains a bias with respect to an imputed primitivism of earlier stages. Because of the orientation to adult development and linguistic skills described above, it is easy to see how the bias has come about, whether it is described in terms of shift to orientation to broadening out later perspectives, or straightforward negation or neglect of these levels as they can’t directly be accounted for in sentence completion self-report format. IPP gives a different view - so much information is available at these earlier levels - children, particularly for example, have access to a different kind of tuning in, which is appreciable among adults - this is
a shared wisdom, across cultures. In participating in IPP we’re returned to these more ancestral or earlier developmental experiences, to work our way forwards again, into experiences that can be supported by more complex neural development, or experiential awareness. This includes IPP polarities and practices which support on in transitioning into, fully integrating and transitioning out of four stages in the meta tier and four stages in the unified tier.

**Apparent Divergence but Profound Complementarity of STAGES with IPP**

On the surface IPP appears to be consistent with Loevinger’s research, with no repeat of patterns through the stages. This is different from the STAGES model, which is built on repeating patterns, through rather than within the stages. So on first glance, the driving force or motivating energy for IPP, compared to STAGES, seems to be distinct. For example - for 3.5/Achiever, in STAGES the separation of poles for the perspective at that level is either/or, and subject/object. This is what the developmental model would prescribe. IPP sets forth subjectification/objectification as the key polarity at 3.5, and experience has shown that people at 3.5 experience that polarity in an either/or manner. However IPP show how this polarity can be experienced in a both/and manner at 4.0, in an interpenetrative way at 4.5, and beginning at 5.0 and especially 5.5 is experienced as a unity. This is what STAGES predicts and points to. We can say that the practice of IPP has a dynamic in it that habituates the participant to the practice of unifying distinct perspectives. John states it this way - IPP has been a beneficiary of experientially validating what STAGES points to. While STAGES predicts then that someone can see deep interpenetration of subtle polarities at 4.5/Systems Aware, through facilitation IPP gives an opportunity to encounter the habits and cultivation of awareness that supports the dynamics of 4.5/Systems Aware consciousness throughout the wholeness of being.

Another example of IPP inherently holding the patterns of STAGES is that in STAGES, successive emerging stages alternate in passive/active succession and reflect early to more mature expressions of moving from a “.0” stage to a “.5” stage. At the 1.0 stage, IPP sets forth agency/communion polarity as a foundational relational polarity. One cannot have a sense of self without an implicit other. The next polarity at 1.5 is control/submission, which brings the inevitable power realities into any relational environment. This pattern is repeated throughout the spectrum of primary IPP polarities.

Another aspect of IPP which is not evident on its face in the simple listing of the IPP polarities is that for instance, agency/communion is a subtle tier version of me/you or me/group which one would encounter when it first arises in the concrete tier. It is listed as agency/communion at 1.5 in the concrete tier because this is the earliest stage of that relationality emerges, but most IPP practitioners have a center of gravity in the subtle tier (3.0 to 4.5 person perspectives), and so the subtle tier version of the polarity is listed on the summary chart. Only in working through the underlying theory and advanced practice of IPP is it made clear that once a polarity comes on line, it has different manifestation at each tier of development. So for instance, what would be me/group in the concrete tier, is agency/communion in the subtle tier, and Witnessing/Worlds in the meta tier. This is all inherent in STAGES as well. IPP is simply a practice modality for these patterns. STAGES is certainly broader in scope and more theoretically complex in developmental terms than IPP, but where they overlap there is remarkable similarity.
Comparison to Other Systems – Polarity Management System, Pointing Out Way

Suzanne Cook-Greuter and Beena Sharma, mentioned earlier in reference to the Leadership Development Framework, have built on the Polarity Management System of Barry Johnson and have confirmed a set of polarities which are characteristic for each stage through 4.5. Beena is a master of this polarity model and has formalized her teaching of “integrating polarities” under the name of the Polarity Approach to Continuity and Transformation (PACT). PACT is not itself meant to represent the full developmental map articulated by Cook-Greuter and Sharma, but it is an extremely helpful approach and tool usable within developmental education, personal reflection, and in groups and organizations. Among other things, It provides support for achieving a 4.0-4.5 level of developmental complexity and related competencies for working with polarities in our lives and work. PACT is actually beneficial for some participants who are not as comfortable with paradox, in that it provides a clear system for navigating paradox, while IPP invites one more deeply into the experience of paradox and beyond.

A primary distinction between PACT and IPP is that PACT emphasizes working with the subtle dynamics of polarities, whereas IPP explicitly works with the concrete, subtle, causal, witnessing and non-dual state dimensions of every polarity in the context of stages, types, lines and evolutionary and involutionary dynamics. Sharing approaches and tools similar to Polarity Management and PACT is increasingly included in IPP Institute offerings because it helps people become familiar with polarities and comfortable with polar dynamics in a developmental and applied context before diving more fully into the deeper practice of IPP.

Practice with polarities within IPP requires comfort with paradox in concert with attentiveness to both spiritual awareness and meaning-making. One way of describing falling into the still point is that the human equivalently disappears into the Tao - non-egoic virtuous action is possible, if the individual is willing to let go of the self. Another comparable system discussed in our dialogue was Dan Brown’s ‘Pointing Out Way’, a relational teaching facilitated by Dan Brown in a multi-day retreats that, through successive practice levels, induces a taste of awakening for participants. John noted that the involutionary current that is apparent in the Indo-Tibetan teachings tends to work with the idea of a self-structure, and levels of egoic assembly that accompany more solidified self-structures, breaking this down to provide the opportunity for an experience of awakening from the limits of what these are (see Epstein, 1996, for an accessible introduction to the connection between Western psychotherapy approaches to the self, and Buddhist principles, with respect to the ego). Notably, the Pointing Out practice stays in very close contact with Mahamudra teachings and Gelugpa lineage, as passed down to Dan during his meditation training. This is distinct from the work of IPP as a meta-lineage framework, which does not anchor directly to a specific tradition or lineage.

Conclusion in Brief

As we began Down Under to explore the possibility of engaging in regular practice spaces to delve into the experience of IPP, I remember having read Tom’s and Terri O’Fallon’s paper from Integral Review in June 2010, “A perspective on Kesler’s Integral Polarity Practice”. What was
clear, in reading this paper, was the sense of profound depth, to this practice – in the words of Murray and O’Fallon, in the practice, there is a transmission along the lines of the experience in the moment of this just being “the tip of the iceberg”. There is something available in the complexity and intricacy of what is held, by John and Thomas, where we find each other newly, together. If I bring to mind the most frequently repeated refrain from folks around Australia and New Zealand who have shared in the online experience, it is that we can’t quite believe, often, that we have never met each other in person, and have never met John or Thomas, in person. We’re nurtured into spaces, where we find ourselves, more deeply available perhaps, to others, and to ourselves. If there is one possible real-world realization that might unfold from the last line of that article, a quote from John that says this practice supports finding “the ever present sacred ecstasy and ordinariness of life”, I believe it may be this; we’re more able to know each other and ourselves, in this space. It is with wonder to turn towards what the possibilities might be that are represented, in IPP 2.0.

References

### Polarity Overview

<table>
<thead>
<tr>
<th>CONSCIOUSNESS / ENERGY</th>
<th>PRIMARY POLARITY</th>
<th>STILL POINT FULL &amp; EMPTY</th>
<th>VIRTUES OF DOING / BECOMING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WORLDS AWARE</strong></td>
<td>Witness</td>
<td>still Mind</td>
<td>D kosmic creation</td>
</tr>
<tr>
<td></td>
<td>Worlds (G, S, C)</td>
<td>no-Mind</td>
<td>B kosmicwonder</td>
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<td></td>
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<td></td>
<td>S sacred wisdom</td>
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<tr>
<td><strong>KOSMIC AWARE</strong></td>
<td>kosmic space</td>
<td>timeless - spaceless</td>
<td>D kosmic love</td>
</tr>
<tr>
<td></td>
<td>kosmic time</td>
<td>no evolusion/evolution</td>
<td>B kosmicflow</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>S sacred compassion</td>
</tr>
<tr>
<td><strong>PATTERN AWARE</strong></td>
<td>empty patterns</td>
<td>patternless</td>
<td>D kosmic vision</td>
</tr>
<tr>
<td></td>
<td>pattern meaning</td>
<td>no constructs</td>
<td>B kosmic gestalt</td>
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<td></td>
<td>S sacred manifestation</td>
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<tr>
<td><strong>CONSTRUCT AWARE</strong></td>
<td>empty language</td>
<td>wordless</td>
<td>D kosmic intuition</td>
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<td>language meaning</td>
<td>no language</td>
<td>B kosmic presence</td>
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<td></td>
<td></td>
<td></td>
<td>S sacred embrace</td>
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<td><strong>SYSTEMS AWARE</strong></td>
<td>integration</td>
<td>system-less</td>
<td>D harmonious</td>
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<td>systematizing</td>
<td>no systems</td>
<td>B integrated</td>
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<td>S sacred integration</td>
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<td><strong>ACHIEVEMENT</strong></td>
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<td>D patient</td>
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<td></td>
<td>objectification</td>
<td>no achieving</td>
<td>B calm</td>
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<td></td>
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<td></td>
<td>E effortless accomplishment</td>
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<tr>
<td><strong>EXPERTISE</strong></td>
<td>assert knowledge</td>
<td>quiet mind</td>
<td>D curious</td>
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<td></td>
<td>yield to knowledge</td>
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<td>B open-minded</td>
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<td><strong>MEANING</strong></td>
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<td>fulfilled</td>
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<td></td>
<td>inquire</td>
<td>no meaning</td>
<td>B inspired</td>
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<td></td>
<td></td>
<td>S sacred unique purpose</td>
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<td>wholeness</td>
<td>D forgiveness</td>
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<td></td>
<td>deviation (obey)</td>
<td>no distinction</td>
<td>B integrity</td>
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<td>S sacred perfection</td>
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<td><strong>POWER</strong></td>
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<td></td>
<td>submission (weak)</td>
<td>no power</td>
<td>B humility</td>
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<td>S sacred empowerment</td>
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<td><strong>RELATIONS</strong></td>
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<td>union</td>
<td>D love</td>
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<tr>
<td>(INTER &amp; INTRA)</td>
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<td>no other</td>
<td>B hope</td>
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<td></td>
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<td>S sacred joy/sorrow</td>
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<td>desire (want)</td>
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<td>D generosity</td>
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<td>aversion (don’t want)</td>
<td>no seeking</td>
<td>B gratitude</td>
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<td></td>
<td>S sacred abundance</td>
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<tr>
<td><strong>LIFE</strong></td>
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<td>serenity</td>
<td>D vibrancy-life force</td>
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<td></td>
<td>contraction (in)</td>
<td>death</td>
<td>B acceptance</td>
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<td><strong>MIND</strong></td>
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<td>full awareness</td>
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<td>openness</td>
<td>empty awareness</td>
<td>B beginners mind</td>
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<td>S sacredlight</td>
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_Figure 1. Polarity overview._
Figure 2. Relations.
Luhmann`s Life Work and Tier Patterns: The Analysis of Differences and Contingent Patterns

Roman Angerer

Abstract: The article undertakes an archeological investigation into the writings of the German Sociologist and cybernetic Systems-thinker Niklas Luhmann. His writings spanning almost four decades of uninterrupted stage growth and text production are good fodder to dissect ruptures between and plateaus of semantic-syntactic structures called developmental stages. By this an architecture is exemplarily revealed that spans four Tiers including sixteen Stages with four subphases at each niveau of relative stability which sometimes is called Center of Gravity. The article is structured as an oscillation between genetic and structuralist phases that enrich Luhmann`s Life Work by multiple references to other thinkers at the integral and post-integral stages. The final section that then presents the complete model is also a critique of other developmental models specifically directed towards and suggesting critical revision of Terri O’Fallon’s STAGES model. This happens through introducing four common fallacies developmental models commit, when trying to appropriate the transcendental and phylogenetic realm preconditioning our conscious growth, through the contingencies of our very self-referential and themselves-thematizing observations. Additionally, in discerning between genesis and structure, descenders and ascenders, inside and outside perspectives and ultimately an Aristotelian and an Platonist Type of stage growth it is the attempt of a seamless intervention between both modes, uniting them and ultimately deluding them of their most prominent errors: the necessity of a first distinction mistaken for the creator and their ultimate purpose mistaken for the divine.

Keywords: Archeology, ego development, Nicholas Luhmann, semantics, text analysis, universal grammar.

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Introduction

Basic Structure

The following article will offer a developmental view on Niklas Luhmann’s work. Luhmann was a German sociologist and social theorist. He is considered to be the most important German-speaking representative of sociological systems theory and socio-cybernetics. We will follow him through ruptures in his life and writings in an attempt “to establish, between so many different changes, analogies and differences, hierarchies, complementarities, coincidences, and shifts: in short, to describe the dispersion of the discontinuities themselves”, as Michel Foucault (1972, p. 175) lays down in his Archeology of Knowledge. However, despite Foucault’s doubt of deploying “two heterogeneous stages on either side of a split” (ibid. p. 175), these ruptures in Luhmann’s life and writings will be related to a linear sequence of stage growth.

This procedure is promising in at least two differential but interrelated ways, when it comes to improve adult developmental theory and its measurement: a) it will give more granularity to single stages by showing repeating patterns within the dispersion of discontinuities and b) by following these repeating patterns of differences and similarities and the related ruptures further differentiates within what Susanne Cook-Greuter (2010) called post-autonomous ego-development. These repeating patterns stem partially from the examination of Terri O’Fallon’s work and the attempt to dynamically deconstruct and reconstruct it within the written expressions of common people and famous Authors’ lives. The pattern shows a more than accidental overlap with those used by Terri O’Fallon (2013) in her reframing of and expansion on Jane Loevinger’s and Susanne Cook-Greuter’s work. However, the trajectory finally revealed seems quite distinct and the application of a quadruplicate pattern – as will be shown – rather part of late stage consciousness than an individual or unique approach to structuring reality.

The article is divided in several sections. Starting with an introduction into the foundations of ego-development theory and showing how research into literature can help improve the granularity of sentence completion tests, we will go through the writings of Luhmann in a linear and chronological as well as nonlinear and comparative manner and show the dispersion of discontinuities. We look at all his books up to the 1970s and then restrict ourselves to the major ones and those which mark transitions. Intertwined with this we will show repeating patterns display themselves. They will be related to sequences in language development and hierarchies of grammar. During this process cross-references to Susanne Cook-Greuter’s and Terri O’Fallon’s work will be given to correlate the sequence with their models as best as possible as well as to other developmental psychologists and authors from social sciences or philosophy to illustrate seeming parallels. Central for this cross-referencing are Georg Wilhelm Friedrich Hegel, Sri Aurobindo, Charles Sanders Peirce, Ken Wilber and Lawrence Kohlberg. A final section will offer insights into the Tier Structure of development which stems directly from Luhmann’s work and matches that depicted by Hegel, Peirce, Aurobindo and others and how this tier structure can be correlated with Terri O’Fallons theory of stage development.

Our goals include the suggestion of heuristic principles for the grammatical analysis of text, first in an introductory fashion and then at larger granularity applied to determine the grammatical complexity of written texts. As a supplement and expansion of text scoring based upon a catalogue of examples that are matches against individual’s expression to determine a
level of development as done by Cook-Greuter and Loevinger we propose grammatical and logical properties of text as more fundamental indicators of developmental complexity. This might lift grammar and logical complexity from being a palate cleanser in Ego-Development theory where it only exists as an assumed precondition for development, serves when sentence completions cannot be matched to a pre-categorized exemplar and appears as rough patterns in pre-categorized examples towards being a main ingredient for pointing towards a person developmental center of gravity in a domain general fashion or independent of different line based assessments of consciousness’s maturity. Furthermore, it expands the scope of analysis from standardized sentence completion tests with a fixed number of verified items for instance towards the analysis of literary texts. It will also allow for a deeper exploration and understanding of the nature of this development by providing both a more fine-grained tool and an overarching superstructure that is at the same time a set of transcendental categories that underly a subject’s linguistic operations.

This parallels the attempts of O’Fallon’s model, which also moves away from exemplar-based scoring to focus on the structure of language rather than its content, the specific categories of exemplars used by Loevinger and Cook-Greuter. As said, we will propose repeating patterns that underly the sequence in which developmental levels unfold as tiers of increasing grammatical complexity, and these patterns partly overlap along the explored trajectory with these used by O’Fallon. Thus, despite the many difference highlighted, our method may also productively used to refine and extend Terri O’Fallon’s model and scoring method as well as refine and extend Jane Loevinger’s and Susanne Cook-Greuter’s work.

**Philosophy of Style**

The article is meant as an appropriation to a more Aristotelian than Platonist view. In this orientation we pay credit to the main actor and heroic figure of this article Niklas Luhmann who can - despite several differences and expansions on ancient concepts – be considered to enact an Aristotelian metaphysical approach. By inquiring into the structure of the world, especially that of social systems, he tries to provide a better understanding of reality. Luhmann considered himself a poststructuralist thinker concerned about Autopoiesis, the self-replication and oneness of process and outcome, where nothing is solid but exist through its self-repetition and search for self-sufficiency and self-maintenance through self-narration and reentering into one’s own stories and scripts of what it means to be oneself as part of society: a process that oftentimes is argued to be a rediscovery of the Aristotelian distinction of self-preservation that “comprises the complex bodily and behavioral relation of being-organized-toward-a-plan into a linguistic-semantic construct that can be objectivized as if it were a thing: namely, the entelécheia [the Form that realizes itself within a substance] or structure [that] refers, indeed, to the specific dynamic structure of self-organizing systems that preserves themselves” (Álvarez-Vázquez 2016, p. 72).

Jacques Derrida’s (1978, p. 154) statement in *Writing and Difference* that philosophy, and hence science, too, becomes easily “an abusive investigation which introduces beforehand what it seeks to find, and does violence to the physiology proper to a body of thought” seems relevant here. Of course, all we seek to find in this paper is based on the efforts of more than eight years of the author engaging in a thorough search, including avenues with mistakes and progressions within these mistakes, which lead to the living and partly unpredictable thing this article became through writing and which it is meant to become in the eyes and minds of the readers. It builds, besides other papers, especially upon a Master-Thesis about Luhmann, Hegel, Peirce and Stafford Beer (Angerer 2019). However, in being written it reveals newness, surprise and wonder within the author and is supposed to do so in the “we” it addresses.
and as that which and within which it writes itself as its each and anytime pre-structured and unique self-revelation. Derrida calls this play, borrowing from Husserl, the problem of structure and genesis. Or we could say of structuralism and accidentalism, of outcomes and solids or underlying ever-presents and processes and fluidity or an above floating presence of the coming and going that reality is. And “in any event, as can be seen, the necessity of this transition from the structural to the genetic is nothing less than the necessity of a break or a conversion” (Derrida 1978, p. 164) where something “differs from itself in order to reappropriate itself” (ibid. p. 166).

As Gilles Deleuze (1998) writes, there is one practical problem to each play or writing or search for understanding. The difficulty of what Aristotle called recognition, wherein an “unknown knowledge must be represented as bathing the whole scene, impregnating all the elements of the play and comprising in itself all the powers of mind and nature, but at the same time the hero [the oneness of the writer and reader as the oneness of that reappropriating and interpreting we] cannot represent it to himself [itself] – on the contrary […] [we must] enact it, play it and repeat it until the acute moment […] [where] repetition and representation confront one another and merge, without, however, confusing their two levels, the one reflecting itself in and being sustained by the other, the knowledge as it is represented […] [in the writing and reading] and as repeated by the […] [reader and writer] then being recognized as the same” (Deleuze 1998, p. 15). Genesis or process and structure are intermingled and the differences pointed out reveal the structure and each structure – though it might be timeless, beyond human space, before any individual consciousness and social phenomenon, even before Abraham was born but prefigured in the big bang which set in to disclose creation to itself, while, too, outside of any identity but appropriated as Brahman is appropriated in each Atman through the Ishwara and each energy fed through the aftermath and expansion of the first blink of existence – as its own differences becoming its own differentiated. It is an entering that creates a unity of the writer’s past and personality as its own all with that of the reader’s past and personality and vice versa by travelling the infinite, unbound, unpredictable but precious and with all identical discourse and mind that we all are, however approximate this all and sacred dialogue is in its particular present and pristine self-presence within a single seemingly individual and separate mind reenacting the typo in letters, words, sentences, textuality and finally an understanding.

Thus, this article moves between genesis and structure. By this we are constantly adding and taking away words and information that is reappropriating itself as that “text” and communication that it is meant to be; as distinctions and presence merged in both reader and writer: one follows the other and one within the other endlessly, eternally – drank by one moment of reading and poured out as fragment of the new whole everlastingly. There is no need to understand, though it was written with best intend of braking down the overall complexity and make it comprehensible. What is repeated can enter and what is new becomes a new possible repetition. More genetical phases are followed by more structuralist phases of this article because as Kierkegaard said, “life can only be understood backwards; but it must be lived forwards”, so we write forwards and understand backwards, structure not in advance but as repetition that adds the next moment to be repeated.

The Sentence Completion Tests and Review of Literature: The Procedure

Jane Loevinger and Ruth Wessler in 1970 distinguish between four characteristics of the Ego. The Ego, like a gyroscope, is that which keeps these four functions – namely impulse
control or character development, interpersonal mode, conscious preoccupation and the cognitive functioning – in balance. Impulse control and character development relate to “moral development in terms of the basis for moral behavior and the types of moral concerns” (Manners & Durkin 2001, p. 542) as well as goal-orientation. The interpersonal mode “represents the attitude toward interpersonal relationships and the other person, the understanding of relationships, and the preferred type of relationship […] [and] conscious preoccupations refer to the predominant foci of the person’s conscious thoughts and behavior, such as conformity to social rules, responsibility, and independence” (ibid. p. 542).

Cognitive functioning for Jane Loevinger (1976) is in a similar fashion as Lawrence Kohlberg (1976, p. 124f) suggested, when he said that “logical development is a necessary prerequisite for moral development, but no sufficient qualification”, that which by its increase in complexity may act as a pacer or leading variable for the lagging ego-development. It is the level of conceptual complexity a person has to structure one’s meaning making.

This level of cognitive complexity is especially valuable when it comes to text analysis. It is possible to assess the complexity level of a text and thus the maximum level of ego-development, because as Linda Dawson (2006) points out: a) the hierarchical order of abstraction and b) the logical organization of utterance change with each stage. The discourse analysis here is done to show the patterns behind the reorganization and summation of units like nouns and verbs, phrases and clauses, arising within stages, between stages and across stages.

For reasons of simplicity we here consider with Foucault (1973, p. 63) these grammars as “the preconceptual field [which] allows the emergence of the discursive regularities and constraints that have made possible the heterogeneous multiplicity of concepts, and, beyond these the profusion of the themes, beliefs, and representations with which one usually deals when one is writing the history of ideas”. The grammar or logic and level of abstractness of a certain cognitive complexity is in itself a somewhat tendentious apperception, one of the main characteristics Loevinger (1976) attributes to the ego. Thus, it is the ground for each conscious perception, interpersonal mode and character development as a network of different grammatological combinations. It defines a domain of possible objects as it works as a complexity or sophistication threshold for topics a literary or scientific text can contain and is considered causal for the fact that “a thought that arises at one level as a cliché appears in deeper, more convincing and more complex versions at a higher level” (Cook-Greuter 2010, p. 33).

The grammatological web or network thus work like different versions of a television, earlier ones can depict black and white and a highly restricted number of pixels and later ones can show 256 shades of each primary color and thus offer HDTV in 16,7 million colors. The ego in this restricted set of assumptions is basically such a TV infused with conscious perception, and the TV program is the interpersonal mode and forms of impulse control. Like a TV carries electricity as information and moving colorful images, as the medium of a certain form, we can look at ego-development as unified pattern of increasing complexity maintaining a meaningful text.

Our later analysis will span the trajectory from the Expert towards the Unitive stage in terms of Susanne Cook-Greuter, including a further segmentation of the Unitive stage or realm as we will call it, so that the scope expressed in the terminology of O’Fallon spans the whole range from 3.0 to 6.5. In the final section of this paper our reasoning will also include even later stages plus elucidate some aspects of the depicted repeating patterns by including
Methodology of Correlation with Ego-Development

Such a meaning carrying text is at least a mix of different types of grammar which collocate a) sentences which are conscious perceptions based on the modal cognitive complexity of a person’s stage (called center of gravity), thus carrying stage typical discourses about the other domains of the ego, b) those with a grammatical superstructure or underlay that expressive specifically of this particular stage (e.g. including typical grammatical variations uncommon on other stages) and certain perceptions only possible to ride on such a grammatical foundation (objects that need a certain complexity of cognition to arise e.g. see Wilber’s (2018) concept of cosmic address), but don’t exhibit the full complexity possible, and c) those which exhibit a movement to another higher or lower level of abstractness and thus drop the center of gravity’s typical grammatological web, or as Aurobindo (2005, p. 992f) puts it: they exhibit a “further cause of complexity arising from the need of integration itself; for the process [of development] is not only an ascent of the soul to a higher status, but a descent of the higher consciousness so gained to take up and transform the inferior nature”.

Or differently said, although written texts are – within the scope of this article – considered as the self-expression and self-awareness of a certain stage, they, too, should be considered as webs or networks combining different levels of abstractness. There is a so called Decalâge, as Piaget (1971) called it, the phenomenon of uneven development or horizontal displacement. The post-Piagetian developmental psychologist Kurt Fischer in unison with Aurobindo highlights and expands the idea of displacement with this web metaphor: the “local variation of activity within global order, […] the multi-directional nature of development, including forward progression and backward transitions” (Mascalo & Fischer 2010, p. 163).

Ego development is assessed via a sentence completion test, a "projective" instrument typically containing 18-36 sentence stems, such as "The thing I like about myself is...", that have to be completed. Though sentence completion tests deal with the same dynamic as “people tend to give responses at more than one level” (Cook-Greuter 2010, p. 163f), the assignment of a stage needs a certain number of responses at a stage to assign an overall score to a person – a center of gravity from where one most likely functions in one’s everyday life. Contrary to this the changed grammatical superstructure (points a) and b) from the upper list) a text has, its substance from self-awareness, can support or replace such a procedure of allocating a person a center of gravity based on a statistical rule. So, while the sentence completion test as a sort of free association task leads to answers across various stages the final score is based on only the highest handful of completions since subjects are not expected to be attempting any “best” answers. Apart of that an authored text delivers a certain overlay, points a) and b) from the above list, that besides variations, point c) from the above list, indicates a certain stage the author is writing from.

Besides that, a number of what we called marker-sentences, will show up with each new developmental level, indicating ruptures or discontinuities as well as stable plateaus. Those sentences that demonstrate the highest developmental level. They resemble typical responses triggered through sentence completion tests and thus can be used for attempts of correlation. Table 1 shows such a marker sentence, matching a response from a typical sentence completion item. Both deal with what might be irreconcilable choices at earlier stages and combines them through a “both... and... and reason” construing “conflicting alternatives as aspects of
many-faceted life situations” (Hy & Loevinger 2014, S.22). He or she has a high toleration for ambiguity.

**Table 1. Example for a Marker-Sentence for the Autonomous Stage of Ego-Development.**

<table>
<thead>
<tr>
<th>Marker Sentence in Sentence Completion Form:</th>
<th>Labeled Bracketing Form:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A good boss… “is able to balance company and staff priorities, whilst finding a way through the chaos to create a climate in which work is rewarding and successful”. (Miniard 2002, p. 70)</td>
<td>[stem A good boss] [choice 1 is able to balance company and staff priorities,] [choice 2 whilst finding a way through the chaos] [reason to create a climate in which work is rewarding and successful.]</td>
</tr>
<tr>
<td>A good process… “on the one hand creates basic conditions, which enable it, and on the other requires steps of reciprocal reinforcement of selectivity, to realize trust.” (Luhmann 2015, p. 49)</td>
<td>[stem A good process] [choice 1 on the one hand creates basic conditions, which enable it,] [choice 2 and on the other requires steps of reciprocal reinforcement of selectivity,] [reason to realize trust.]</td>
</tr>
</tbody>
</table>

For working with marker sentences like in Table 1 we will a) bring them in sentence completion form if it were for the attempt of correlating it with an original completion of one of the manuals or items in use for measuring ego-development and b) use a form of labeled bracketing to indicate the relevant information or grammatical structure and point to it as a phrase of a certain category e.g. [choice 1 …] within a paired bracket. However, we have to keep in mind thatgrammatological analysis has some difficulties or restrictions: as much as many modern languages have a restricted case system compared to the richness of old-Indo-European languages “we need to cover the functions covered in a particular case and we must not accept traditional labels as face value” (Blake 2001, p. 155). Much of this paper is the search for right terminology and a partial, exemplary analysis to fit in the intended purpose for this article.

**Aspects of Grammar: Analyzing Overlay and Superstructure**

Given the philosophy of style under heading 1.b and the difficulty of repetition and recognition we only open up “a single and same voice for the whole thousand-voiced multiple, a single and same Ocean for all the drops, a single clamor of Being for all beings” (Deleuze 1994, p. 304), here. We offer some specific examples on what is given more granularity and detail to within the analysis of Luhmann and point to that where each “each being, each drop and each voice has reached the state of excess – in other words, the difference which displaces and disguises them and, in turning upon its mobile cusp, causes them to return” (ibid. p. 304) as repetition that which is the being of a textuality, that which makes it cohere, fit together and become thus an organized and unified whole: the superstructure or grammatical overlay, that is hypothesized in this article as the substance or underlay of the ego.

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2 From Luhmann (2015, p. 49) and Miniard (2002, p. 70): Both responses fit into the scoring category “Complex psychological causation, mutual influence” as well as exhibit a “both… and… and reason” perspective where two differential ideas are connected to show how a good atmosphere within a company can arise.
For determining the complexity of the text, we explore several factors that are used to combine information and convey meaning at sentence and text levels. At the sentence and work level we will be primarily evaluate the following grammatical categories ("cases"), and their combinations, for their levels of cognitive complexity: **Nominal** (Who or What?); **Accusative** (Who or what is being or verbed?); **Dative** (To Whom or What?); **Genitive** (Whose? From what or what of?); **Ablative** (Whence? From where or whom?); **Locative** (Where or wherein?); **Instrumental** (By which means? For which ends); **Comitative** (Together with whom or what?). At the larger textual level, we will consider the complexity within forms of lexical cohesion and grammatical cohesion (conjunction, reference, ellipsis and substitution). These categories will later be used to analyze and assess both quotes from Luhmann’s life work that exemplify stages and phases within a stage and sentence completions that in terms of complexity, grammar and surface content match Luhmann’s writing in these periods, so that a picture of stages and transitions appears that is based on the Author’s understanding of the larger trajectory not only within the context of Luhmann’s writings but furthermore of developmental conceptions of ego, moral and cognition.

**Within a Sentence: Subject, Predicate, Object Variations**

Luhmann was German, and, since the construct of ego development as well as the procedure for its measurement were developed within the English language, we must consider certain differences between these languages relevant to our grammatical analysis. The Author of this article however is a native German and bases his understanding and analysis of Luhmann on the original texts that are as best as possible translated into the English grammatical equivalents.

What makes English sentences fit together, their coherence, is in many ways similar to German texts. Single sentences contain subjects (the actors), predicates (the acts) and objects (e.g. the goals of the actors’ actions), like in “[Subject the author] [Predicate is writing] [Object an article]”. However, what makes them different is the number of cases. Cases respectively are the grammatical function of a noun or pronoun. Modern English language restricts itself to three cases the nominal or subjective (he/she), oblique or objective (him/her) and possessive (his/hers). The objective case often called oblique is a nominal case that is used to create a series of subject, predicate and object. For example, in “the author is writing an article”, the nominal or subjective case is the author, the “who or what” of a sentence, while the objective or oblique is the “article”. In this case that which “is being or verbed”. That which is being or verbed was distinct in Old English as the accusative case, and objective case as a direct object. However, Old English impoverished over the centuries and didn’t add to its case structure and thus lost this accusative and its sibling the dative case, which are both present in German language.

In the dative form of the oblique there is no direct object (the receiver of an action) within a sentence following the “author is writing”, but a need for an indirect object (identifies to or for whom or what the action of the verb is performed) creating additional information regarding the direct object, “an article” and thus enhancing complexity and meaning. The sentence then would look like this “[Nominal subject: “who or what?” The author] [Predicate verb is writing] [Accusative direct object: “who or what is being or verbed?” an article] [Dative indirect object: “for whom or what is something being or verbed?” for a journal]” – literally the German dative in English would look like this “[Nominal subject and predicate verb the author is writing] [Indirect dative object a journal] [Direct accusative object an article]”. As we can see the sentence was enhanced by some sort of possessor or beneficiary “who is receiving” or “for whom” the direct object is generated. By this the verb or predicate is followed by more than one object, it becomes di-transitive – “di” meaning “with two” and “transitive”
meaning “goals” or that which is “aimed at or towards”: hence there are now “two goals or aims” instead of one. Like in developmental psychology the accusative object here is necessary but not sufficient for the later. A dative object can only occur after or connected to an accusative, that’s why this seriality is oftentimes called a natural and universal hierarchy in linguistics; more universal languages without accusative don’t show a dative either, all languages with dative show a form of accusative (Blake 2001). However, like in the example above, the dative structure, the indirect object, can often be indistinguishable from an accusative. Especially if the indirect object follows a direction it can demand a second accusative object. This leads to an accusative of “place to which” or a causative e.g. “[Nominal subject and predicate verb the author asked] [Indirect accusative object the journal] [Direct accusative object for a publication].” So, the move from accusative to dative is more a gradient than a leap.

The paucity of case makes modern English a so-called analytic language in contrast to the synthetic German and most other European tongues. We don’t want to lose ourselves in detail here but the basic difference is that English uses strategies like prepositions, verbal voice, word order, and possessive ’s for its textuality – intentions, acceptability, informativity, contextuality, intertextuality, coherence and cohesion – whereas Germans use inflection or agglutination to express syntactic relationships and the forms these relationships transport (Haspelmath & Michaelis 2015). Inflection means to increase the length of a word and changing its form by use of morphemes. A root is enhanced and thus a grammatical property assigned.

Since these distinctions are as all distinctions in this paper used in a relative rather than an absolute sense, we can show this with the English example from above. When inflected one can substitute the “author writes the article” by the more passive form of “the article is written by the author”, the root “write” was enhanced and inflected by dropping an “e” and adding a morpheme, the “ten”.

Agglutination means the creation of compound-words like the German “Zeitgeist” would in English rather be created by a possessive or genitive structure “the spirit of our time” or “a time’s spirit”. Some languages even move into being polysynthetic as do some German author’s, where whole sentences are arbitrated by one word like the Heideggerian “being-in-the-world” which fuses the quadruplicity of subject, object, consciousness, and world thus expressing the deep relationship which he so painfully missed in his philosophical predecessors like Immanuel Kant: their ability to have the “complete grasp of the structure of care which includes the phenomenon of selfhood as being-in-the-world” (Heidegger 1969, p. 324).

Still, German, too, has an impoverished case system compared to other Indo-European languages (Quiles & Menchero 2017). The grammatical hierarchies of languages with all nominative, accusative object, dative object and possessive cases often include so-called modifications. Cases which center around changing the predicate verb of a sentence for example through a) adverbial or b) adjectival intensifiers functioning as c) complex prepositions modifying the relationship between nouns and pronouns (I, you, he/she/it etc.). Furthermore, these cases are changing predicates into nouns as categories of place, time or means to an end.

An a) adverb is something that is “ad-verbal” hence for support of a “verb”, a Latin form of “at-the-verb”. They answer questions of manner of “how” (angrily, happily, easily etc.), place or “where” (near, there, here etc.), time or “when” (soon, now, then etc.) and frequency or “how often” (daily, sometimes, never etc.). An b) adjective’s main syntactic role is to modify nouns and noun phrase through adding descriptive and qualitative (large, nice, cute etc.), quantitative (first, second, third etc.) or demonstrative (this, that, these etc.) descriptors. Com-
plex prepositions c) in contrast to simple prepositions (by, at, on etc.) can be adverbials and adjectives in form of double prepositions (into, out of, from within etc.), compound prepositions (in addition to, on behalf of, in the middle of etc.) as well as participle prepositions (considering, during, concerning etc.) and phrase prepositions (on time, at home, before class etc.). They, too, help modification towards the dative form of objective cases while enriching the complexity and meaning of a sentence through additional information. This additional information refers to:

a) the ablative, the “direction away from of a dative object” e.g. in “[Nominative: “who or what?” the author] [Predicate verb moves] [Accusative object: “Who or what is being or verbed?” his laptop] [Ablative modification as adverbial of place: “where from?” away from] [Dative object: “From whom or what” his lap]

b) the locative, the “place of dative object” or the place “from where” or “towards which” an object comes or is moved e.g. in “[Nominative: “who or what?” the author] [Predicate verb moves] [Accusative object: “Who or what is being or verbed?” his laptop] [Ablative modification: “where from?” from his lap] [Locative modifier as adverbial of place: “Whereto?” towards] [Dative object: “Towards whom or what” the table]’;

c) the instrumental, the means “by which” or the “in order to” e.g. in “[Nominative: “who or what?” the author] [Predicate verb moves] [Accusative object: “Who or what is being or verbed?” his laptop] [Ablative modification: “where from?” from his lap] [Locative modifier as adverbial of place: “Whereto?” towards] [Dative object: “Towards whom or what” the table] [Instrumental modifier as descriptive adjective modifying next noun phrase: “Whereto?” in order to] [Noun phrase predicate and object get up for a break]’;

d) the comitative, the one “with whom or what” one shares or intends “to be with” e.g. in the instrumental, the means “by which” or the “in order to” e.g. in “[Nominative: “who or what?” the author] [Predicate verb moves] [Accusative object: “Who or what is being or verbed?” his laptop] [Ablative modification: “where from?” towards] [Dative object: “Towards whom or what” the table] [Instrumental modifier as descriptive adjective modifying next noun phrase: “Whereto?” in order to] [Noun phrase predicate and object get up for a break] [Comitative modifier as phrase preposition “with whom or what” with a friend and a cup of tea and cookies]’;

There are many sub-cases and structures of these modifications. And as we will see later, they all help to increase complexity in a relatively fixed and natural order. Now there are no longer two aims or di-transitive expressions of the predicate verb but so called multi-transitive verbs followed by multiple nouns and noun-phrases enhance the informational value of a sentence.

Following two of the basic laws of narration, that of redundancy and variation as well as that of diversification (Koschorke 2012), we now, after having created closeness to the intricate structure sentences can comprise, go into a larger variation of this which for example concern different cause structures; it is now time to look at the theoretical foundation of how different sentences are connected into a whole the author is writing. Afterwards, we dive back into repetitions increasing the resolution of our grammatical television screen as we further diversify and differentiate “into what holds the writing together at its core” by analyzing Luhmann’s life work. Table 2 sums up what was said in this section and ads a bit to it.
Table 2. Some of the depicted grammars, their workings and abilities to convey meaning.

<table>
<thead>
<tr>
<th>English Name:</th>
<th>Subjective Case</th>
<th>Objective or Oblique Case</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Saxon</td>
<td>Prepositional</td>
</tr>
<tr>
<td></td>
<td>Genitive</td>
<td>Genitive construction</td>
</tr>
<tr>
<td></td>
<td>with Suffix</td>
<td></td>
</tr>
<tr>
<td>Gradient</td>
<td>Rather Nominal (Denominating/Objective) →</td>
<td>← Rather Possessive (Correlating/Subjective)</td>
</tr>
<tr>
<td>General Name:</td>
<td>Nomina-</td>
<td>Nominal or Accusative Possessives</td>
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<td>tive</td>
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<tr>
<td>Valency:</td>
<td>Intransitive</td>
<td>Transitive</td>
</tr>
<tr>
<td>What happens?</td>
<td>Makes the subject and words after the verb the same.</td>
<td>Makes a Nominative by modifying a noun through another noun.</td>
</tr>
<tr>
<td>Meaning Conveyed:</td>
<td>Enables a naming of the Subject and seeing subjects as their own purpose.</td>
<td>Creates a compound subject or univariate relation.</td>
</tr>
</tbody>
</table>

Within a Text: What holds Together Textuality

“‘New meaning’ is largely created out of ‘old meaning’” (Koschorke 2012, p. 163) and thus a text is based on a space or field of “meaningful Integration” (ibid. p. 162) of old into new. It is an openness of semantization and de-semantization and the reappropriation and extension of what was said earlier. M. A. K. Halliday (2004) in his *Introduction to functional Grammar* points out the main difference of analyzing textuality in opposition to the analysis of a single sentence. Here “the organization […] is semantic rather than formal, and much looser than that of grammatical units” (Halliday 2004, p. 524). Far beyond being only struc-
tural it is genetic, too, one has “to be able to think of text dynamically, as an ongoing process of meaning” (ibid. p. 254). For him the dilemma of structure and genesis is solved by moving into distance and making the living, dynamic thing a system. Such a system than can be seen as compartmentalized into four major types of cohesion which interlace sentences within a text: three of them work through grammar and one through lexical means, through repetition and other forms of reappropriation to earlier words and their meaning (Korte, Müller & Schmied 1997).

1. Grammatical Cohesion:
   a. Conjunction: This means that clauses are connected through conjunctions, whereby different types of linking words exist. Additive ones (e.g. and), causal (e.g. therefore), temporal (e.g. afterwards) and adversative (e.g. even though) work together.

   b. Reference: This means that language units cannot be interpreted as separate rather as interconnected, they reference each other. This can happen in personal form through personal pronouns (e.g. they), possessive determiners (e.g. my) and possessive pronouns (e.g. mine). But, too, as demonstrative through articles (e.g. the), demonstrative pronouns (e.g. this) or adverbs (e.g. then) or comparative references. Comparative references again can be pointing to sameness through adverbs and adjectives (e.g. same), similarity (e.g. similar) or difference (e.g. otherwise).

   c. Ellipsis and substitution: Here ellipsis means to elide or drop structural elements (e.g. “I write, and you write” becomes “I and you write”). Ellipsis eventually can culminate in substitution where semantic short forms replace larger elements (e.g. “I write, and you write” becomes “I write, and you, too”).

2. Lexical cohesion: This means that “lexis is organized into a network of lexical relations” (Halliday 2004, p. 570). Differently said each word or phrase within a language can in relation to a known cultural lexical background be substituted by other words. A “writer” has lexical cohesion with “author” and “author” with “text”, while “text” again points to “writing” and the “writer”: languages have synonyms, antonyms, hyponyms, hypernyms and meronyms.

   What lexical cohesion is varies strongly with culture and time as Michelle Foucault (2005) shows in the Origin of Things. It is based on epistemes which for example rely on a certain amount of similitudes in which “signs themselves […] are no more than a play of resemblances, and they refer back to the infinite and necessarily uncompleted task of knowing what is similar” (Foucault 2005, p. 46). And thus, discourse works in such a cultural epoch as something that “by trying to approximate to it, by attempting to say things about it that are similar to it, […] brings into existence the infinity of adjacent and similar fidelities of interpretation” (ibid. p. 46). And these epistemes are here hypothesized to not only change with variations in thought through new insights and life-conditions but with each stage of human development, too.

   As Jürgen Habermas (1979) puts it in the Reconstruction of Historical Materialism, cultures do not per se belong to a stage: the complexity of cultures is a multidimensional concept it can be judged “in respect towards size, interdependence and variability, with respect to achievements of generalization, integration and respecification” (Habermas 1979, p. 141) as well as the increase in complexity of single individuals in a culture not necessarily leads to an overall increase in complexity rather can create “evolutionary dead ends” (ibid. p. 141). And since cultures don’t share solid boundaries as organisms do or as a person does “the relation-
ship between complexity and self-maintenance becomes problematic” (ibid. p. 142) since larger numbers of people have to adopt to new forms of discourse and inhabit new epistemes and according perceptions and behaviors to sustain what lexico-grammar transports within the operational realm. However, since a) deterioration in individual developmental levels can happen through personal practical and moral life dilemma and b) these quandaries and their solutions can “gain entrance into the interpretative system of the society through exemplary learning processes” (ibid. p. 161). The evolutionary challenges perceived and spread by these individuals and the initiated learning processes can then c) make an adaptive shift of the whole society necessary and finally d) “the introduction of a new principle of organization [e.g. a new episteme] means the establishment of a new level of social integration […] [for which] the learning processes of moral-practical consciousness functions as pacemakers” (ibid. p. 160). From our point of view each culture thus establishes a certain grammatical web that e.g. impoverishes like modern English when certain stages of development – as we will see, these who are closer to the end of a tier – which have enacted a society with multiple modes of grammar disappear. Thus, impoverished grammar might, too, inhibit the overall capacity of a society to evolve since more complex modes of discourse are inhibited by social convention and thus might be part of solidifying autopoietically processes. Or as Luhmann (2018a, p. 538) would say systems “create observations that confirm and condensate certain semantics by which meaning valuable enough to be preserved gets identified, held on, remembered or left for oblivescence”.

Between this layer of cultural discourse and that of widely universal and cross-cultural grammars, which only vary in sophistication and scope as numbers of grammatical operations and functions, a third element is essential to hold together textuality in its core. The theme to rhema shifts that bind together the surface level grammar and the deep embodied and immanent structural concepts, the lexis of discourses (Ongstad 2007). Normally “the theme is the element which serves as the point of departure of the message; it is that which locates and orients the clause within its context. The remainder of the message, the part in which the theme is developed, is called […] the rhema” (Halliday 2004, p. 64). Mostly the theme is recognizable as it introduces the sentence as in “[Theme: “who or what is it about?” the author] [Rhema: “what does the author do, what is important about him?” writes the article]”.

However, when it comes to two or more sentences what is additionally of interest is the question for new and for already given information. The interlacing of sentences, as shown, works through lexical cohesion, through the reappropriation of the earlier and the connection or contrast to something new. Here we can redefine theme as that which creates the lexical cohesion as adopting the given meaning of an earlier sentence, and the rhema as that part adding new content, information and meaning. Then the theme is no longer necessarily the introduction to a sentence, though that’s the common case, but can show up as any part of the sentence relating back to something earlier and given: to that which is explored, the thematic content of a passage or text – e.g. as in [“ Theme the author” [Rhema writes an article.] [Theme: as given information and lexical coherence The article] [Rhema: as new information is about language]” compared to [“Theme the author” [Rhema writes an article.] [Rhema: as new information It was language] [Theme: as given information and lexical coherence the article] [Rhema: as new information dealt with]”.

**Overall picture of Grammatical Analysis**

As depicted grammar and lexis, the universal and the culturally conditioned interact within textuality. In the middle so to say is the process that a text is: a dynamic flow of theme into rhema, given into newness, repetition into difference and reappropriation into recognition. The process is depicted in Figure 1.
The Discontinuities in Luhmann’s Writings

The core of this paper to crystalize a developmental progression from the conceptual complexity and content of Luhmann's writings that simultaneously is used to exemplarily carve out, illustrate and further develop a domain general scheme for the developmental analysis of text. This will contribute to a general understanding of Luhmann's ideas, and their progression while it both supports and challenges the usefulness of different tools for measuring stage-like development thus opening a window for a broadened discourse that includes the different conceptions of Ego-Development, models of hierarchical complexity, moral development and spiritual as well as philosophical conceptions of growing and waking up as a human being. We will focus particularly on the progression of ideas specifying the relationship between a system and its environment, and how systems are created and self-maintained. The first half of this endeavor will almost solely focus on Luhmann and some of the main ideas of his earlier writings including the operationalization of mistakes and trust in formal organizations. Towards the end of the article we put emphasis on a rich comparison with other late stage thinkers to show not only grammar but some general traits or surface structures people at these stages seem to embody. This, too, is accompanied by differentiating two basic types of looking at the world: an inside, more Aristotelian, and an outside, more Platonic, view – both terms will be clarified later in section 3.b.iv Preliminary Contemplations on Tier Patterns.

One of the main ingredients of Luhmann’s two major works the 1984 Social Systems and the 1997 Theory of Society is the idea of differences between systems and environment. These differences start with the “invention of negation and with the through negation enabled Yes/No coding” (Luhmann 2018a, p. 459). The coding allows one to accept communicative offerings and thus the variation, selection and re-stabilization of system-boundaries, “a unity in difference to an environment” (Luhmann 2002, p. 412). However, for late Luhmann both, yes and no, are intriguingly connected – the variation or the no is, too, a selection, a yes, to-
wards something more or less contrary or to nothingness. In his posthumously published book *Organization and Decision* (2000), he writes besides the duality created by a coding about the possibilities of pointing to an “either... or”, a “both... and”, as well as seeing a “both... and... and the relationship of both sides of this both... and”.

Coding means that we create a dichotomy, one that allows difference and thus divergence and novelty. Derrida (1999, pp. 44f) calls “the praxis of language or of coding as a play of forms without specified and unchangeable substance, [...] a play of traces”; traces which, so Luhmann, represent systems as relatively stable and fixed as well as irritable modes of communication. The coding allows to test for functional fit and selection, variation and integration or negation. When a coding arises, for example as the difference of formal and informal organization, the logically sound first step is the recognition that one side of the coding is not the other (A\(\neq\)B) or both are the same, or rather: one merely reduced to the other (A = B). From this starting point Luhmann unfolds a trajectory in *Organization and Decision*: after the first dichotomy comes a second where an organization is always either formal or informal (A \(\lor\) B) and the organizational procedures sort events into these categories, or it arises as an univariate relation which easily leads to the subordination of the one under the other, where either the formal or informal is superior or earlier to its opposite (A \(\rightarrow\) B). For Foucault this was the main mechanisms of 16th century discourse “it was the relation and interplay of subordinations between describing, articulating into distinctive features, characterizing, and classifying; it was the reciprocal position of particular observations and general principles; it was the system of dependence between what one learnt, what one saw, what one deduced, what one accepted as probable, and what one postulated [as truth]” (Foucault 1972, p. 57). As a third after the second where “opposites had been formulated, where depending on circumstances one or the other side appeared as worthy of promotion [...] [, where] groups took on the appearance of forming cliques” (Luhmann 2000, pp. 303f) comes the recognition that there can be “as well formal as informal organization” (ibid. p. 303), a “both... and” (A \(\land\) B) approach to looking at ones system. This, too, can be the recognition of the inherent interactions, interconnections and thus the necessity of integration of both sides (A \(\leftrightarrow\) B) beyond univariate relations; as a fourth mode an organizational system can be “depicted as basically bi-resilience” (ibid. p. 304) as unity that is “autopoietic and the construction of the system with one operation” (ibid. p. 304) an operation which is basically both sides of the coding and their relationship to each other, a oneness (A \(\cap\) B) that at the same time maintains itself in this relationship through being both: what it is and what it is not (A = ¬A) where both sides are equally important and can only exist in being co-subordinated to each other or in a permanent shift to reference both.

Coding thus allows a trajectory of unification of its own opposites which at the first sight mirror the steps of the “polar opposite pattern” that Terri O’Fallon (2010, p. 20) points to in her thesis *The Evolution of the Human Soul*: “awareness of only one side of a pole; awareness of polar opposites and choosing either one side or the other (either/or; neither/nor; awareness of and choosing both sides of the polar opposites (both/and); interpenetrating both sides of polar opposites: the passive, active, reciprocal and interpenetrative phases of understanding.

However, Luhmann as a student of Talcott Parsons does not identify these grammars with passive, active, reciprocal and interpenetrative, rather sees them as his versions of Parsons’s (1991) adaptation, goal-orientation, integration or interpenetration and the maintenance of patterns. Thus O’Fallon’s fourth Term would in this scheme just be the third, while reciprocation as we will see later would be just a minor part of this third step in the overall quadruplicity. Adaptation between the environment and the social system is basically a function of communication as evolution “the basal process of social systems, which reproduce the elements,
out of which they consist” (Luhmann 2012, p. 191). Activity according to Parsons (1991, p. 4) comes into play through goals, where an actor “may actively attempt to control the situation in conformity with his wishes or interests”. For Luhmann (2012) goal-orientation or attainment and activity is based on the realization of a system/environment difference in reality where the system can be either a person as a consciousness-system in difference to other persons or any system as coherence of communications distinguishing itself from other modes of coherent communications. However, this “either/or is no absolute, it is true only relative to an individual system, but in the same way objective” (ibid. p. 244). It is the correlate of observation, which introduces such a distinction in so far as “they pursue a higher ordinal-interest” (ibid. p. 246), hence certain goals. The difference between system and environment asks for mechanisms of integration or interpenetration. Here Luhmann (2018b) is quite consistent with Parsons’s (1991, p. 10) idea of “a kind of ‘compromise’ between the ‘strains to consistency’ of […] personality, social and cultural components respectively, in such a way that no one of them closely approaches ‘perfect’ integration”. Distinctively, Luhmann who rather looks at communication than at personality as well as social and cultural components, considers integration as a structural drift of “integration and disintegration from instant to instant […] as the countless eventful operative couplings, which cause a permanent establishing and dissolution of system-contexts” (Luhmann 2018b, p. 605f). In Social Systems Luhmann (2012, p. 290) speaks here of interpenetration “as the intersystem-relationship between systems, which reciprocally belong to environment for one another […] [and] reciprocally enable each other by yielding their pre-constituted private-complexity into the respectively other” (ibid. p. 290).

The fourth on the trajectory, Parsons’s (1991, p. 13) idea of latent pattern maintenance, “the formulation of mechanisms which ‘account for’ the functioning of social systems, for the maintenance or breakdown of given structural patterns, for a typical process of transition from one structural pattern to another” included for Luhmann (2012) to much of the traditional ideas as within the wholistic or neo-platonic mysticism of Hegel, the idea of a real unity within being. To make the grade of his post-structuralist roots he therefore introduced a new fourth idea: self-description as self-reproduction, which sustains a system’s structure as process by thematizing itself. A process that is the unity of difference and repetition, a system as its own “autopoiesis”: how communication creates communication and creates structure within a temporal living out as repetition of certain operations and the permanent reappropriation of the old status, or the reaction and constitution of new operations from old ones if new irritating events occur.

While for Luhmann (2017a) in his 1975 book Systems-theory of Society this self-thematization is “completely immanent” to social systems and reflects the idea of what is consciousness in conscious systems or persons, Luhmann’s later writings emphasize the necessity “of a change in form of self-description […] [which] lies within the transition from a first order observation towards a second order observation” (Luhmann 2018b, p. 1140f). The “use of self-reference with discriminatory function” (Luhmann 2017a, p. 916), which is as a self-reassurance that is completely immanent to the system a “constitutional-process which thematizes systems-identity” (ibid. p. 920f) and controls e.g. adaptation, the source of adaptive change of system and/or environment, turns first into self-observation: a distinct operation as the “handling of distinctions. […] The introduction of the system/environment difference into the system which constitutes itself with the help of this distinction; and at the same time as an operative moment of the autopoiesis, because within the reproduction of elements it has to be guaranteed that they are reproduced as elements of the system and not as something else” (Luhmann 2012, p. 63). Observation becomes the coordinative function of self-referential-closed systems with openness towards their environment – they are holding all earlier functions of communication, difference, integration and self-thematization together. With an over-
flow of communicative possibilities Luhmann states the necessity of a level of second order observations, which means both a) that the differences and distinctions, the observations and descriptions, are created by differences and distinctions, the observations and descriptions themselves and thus have to describe themselves in their descriptions – the observer “must apprehend its content as a self-descriptive content” (Luhmann 2018a, p. 16) – b) and to take responsibility and make a choice “from which system it views others as environment […] and that descriptions are poly-contextual: each describer in his descriptions is describing differently” (Luhmann 2018b, p. 1141).

Luhmann himself distances himself from a hierarchical developmental perspective when he negates the idea that second order observation is sourced by a later, higher or “’better’ observer – but rather by just another observer” (ibid. p. 1142). Nevertheless, the structure of his three greatest masterpieces the 1975 *Systemstheory of Society*, the 1984 *Social Systems* and the 1997 *Society of Society* show three phases of his orientations towards how and by which operations systems are created, a) by themselves through immanent self-reflection, b) which is framed later on as an observer coordinating four functions of systems (which were named adaptation, goal-orientation, integration and latent pattern maintenance by Parsons) or c) through pointing to observations of observations and a second order observer, which is able to decide for certain descriptions of society, by finally including that what is doing the describing into the descriptions and by being aware of alternative descriptions and describers in an autological fashion.

We now take this trisection of Luhmann`s life for our course through his work and direct our focus especially on how two sides of a coding are related to each other, especially systems and their environment. The passages from Luhmann`s books where chosen by looking into the index of keywords and basically choosing “difference between system and environment” or “differentiation”. Too, for the final assignment of a books to certain phases, the first and last chapters were compared for eventual shifts in grammar and stage especially as some of the Luhmann`s later books have been written in parallel over the course of seven years or so. Additionally, the author has read approximately half of the 27 compared books and articles in completion and the depicted trajectory was researched and recognized within several authors life works.

Our hypotheses here as depicted in Table 3: Terri O`Fallon’s polar opposite pattern depicts only the first of the three phases Parsons and Luhmann identified, thus subdividing the integrative phase into reciprocal and interpenetrative, i.e. integrated, substages. The distinct functions of the social system and the different tier changes are visible both in sentence completions and Luhmann`s as well as other author`s writings and pointed to throughout the rest of this article. Additionally, Table 3 shows the trajectory we genetically investigate within the next three subsections before a more structural section synthesizes the pointed-out discoveries into a larger picture. A more comprehensive outlook of the stage trajectory in comparison is given in Figure 6 in the end of the article.
Table 3. Investigated trajectory of the next section and mentioned models in approximate correlation.

<table>
<thead>
<tr>
<th>Model</th>
<th>Luhmann</th>
<th>O’Fallon</th>
<th>Hy/Loevinger &amp; Cook-Greuter</th>
<th>Mascolo &amp; Fischer</th>
<th>Kohlberg &amp; Habermas</th>
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<tr>
<td>Social-System</td>
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<tr>
<td>Self-Thematization</td>
<td>$A = \neg A$ or $A \cap B$</td>
<td>5.0</td>
<td>One Pole</td>
<td>5/6</td>
<td>Construct-Aware</td>
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<tr>
<td>Integration</td>
<td>$A \leftrightarrow B$ or $A A B$</td>
<td>4.5</td>
<td>Integrated</td>
<td>5</td>
<td>Autonomous</td>
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<tr>
<td>System/Environment</td>
<td>$A \rightarrow B$ or $A \neg B$</td>
<td>3.5</td>
<td>Either/or</td>
<td>4</td>
<td>Achiever</td>
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<tr>
<td>Adaptation</td>
<td>$A = B$ or $A \mid B$</td>
<td>3.0</td>
<td>One Pole</td>
<td>3/4</td>
<td>Expert</td>
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The Early Works of Luhmann: From the Conscientious 1960s to the Construct-Aware 1970s

1964 and 1966

Luhmann’s second book is called *Functions and Consequences of formal Organization*. It deals with the formalization of organizational systems as an elementary process of human contact and relationship (Luhmann 1964). It shows the necessity and possibilities of formal and informal strategies of establishing social systems and the resultant problems of possibilities for increasing complexity.

Differentiation here is a means of “keeping certain states and trajectories invariant in opposition to a changing environment, which can be improved and expanded, by subdividing a system” (ibid. p. 73). Differentiation takes the leading role and integration is subordinate to differentiation, “it basically serves the goal of boundary-retention” (ibid. p. 79). Too, it has to be mentioned that integration is synonymously used with adaptation. Some years later in his dissertation about *Right and Automation in public Administration* this conflation of terminology still exists, however than, he states conversely to the subordinationistic perspective that for sustaining a system in a highly complex and volatile environment two strategies are equally necessary: the first, namely adaptation or integration “as the institutionalization of common values and forms of cooperation between system and environment relevant to them” (Luhmann 1966a, p. 23) and “as alternative to this ‘external’ mode, there is an ‘internal’ mode to reduce complexity, namely through internal complexification of the system” (ibid. p. 23), hence differentiation. The increase of inner variability leads to an ability to chunk down what comes from the outside of a system.

In the same way one can see the focus on sustaining boundaries in Luhmann 1964 compared to 1966, in observation of the concept of mistake. In his book about formal organization...
he writes about the frustration of expectations and the assignment of guilt and causality: the lead motive is “the relation of the salient, disappointing experience to solid and proofed experiential structures, […] which cannot question the rightfulness of expecting the right. […] The explication of frustration and reaction of disappointment in open action both have the symbolical meaning of a demonstration of a violated norm” (Luhmann 1964, p. 253f). The fact of a mistake “as a sort of natural catastrophe, which invades the system from outside” (Luhmann 1966a, p. 76) falls away out of the conceptual space. The mistake is simply “an interpretation of events […], already an internal category of the preparation of experience” (ibid. p. 76). Additionally, as it cannot be localized internal either, it “perforates the internal/external differentiation. It further fuses the differentiation of structure and process, as it can only show up in a working process, but as a disruption of its original structure” (ibid. p. 75).

Luhmann in 1964 has in his dealing with the concept of mistake and frustration a grammatical overlay that is both strongly relativistic in an “either… or” fashion and polarizing. The relativistic side shows up e.g. in sentences like “[relativity notion depending on] [sources of dependencies the whole situation of the system and its overall attractivity] [either… or notion it can be better ruled by threat of punishment or positive incentives]” (Luhmann 1964, p. 255), while the polarizing aspects can be recognized in “[neglected idea 1 the formalisms of expectation and sanctions understands itself not through itself,] [polarization it rather] [prioritized idea 2 has to be explicated in its specific function and the resulting follow up problems]” (ibid. p. 254). Besides that, as shown two completely opposite points of view can be coordinated but not in the “both… and” fashion of his 1966 writing rather as subordination of one side within two ambiguous perspectives. But not only can one see the differentiation through this grammatical underlay of polarizing and subordinating but the reflection of the limitation to one’s own capacities – “specifically with increasing differentiation it is no longer possible […] to master the system with the normal, natural-concrete perceptional and emotional powers of humans” (ibid. p. 81).

This sentence echoes the overall structure of Luhmann’s style in Functions and Consequences of formal Organization from 1964: sentences are highly complex and use many forms of interlacing across sentences or combinations of independent clauses into one sentence. Contrary to this Right and Automation in 1966 is largely based on short nominal sentences, longer sentences are linear and as we will see can be divided in two classes. Additionally, there is a change from “this means” to “that is”, one can as later shown, explain from nominal single persons’ points of view in contrast to the comparative and relative structure within later phases of a grammatical cycle.

Grammar from 1964 to 1968: Achiever vs. Pluralist

In 1968 Luhmann’s book Trust: A Mechanism for reducing Complexity was published. Trust didn’t play a large role in 1966. However, there is one passage of interest. It deals with the protection of trust and shows the simplicity of the early “both… and” structure. Luhmann (1966a, p. 90f) writes that “each system needs ‘latent’ functions and structures to stabilize itself; they cannot be illuminated without forcing the system to change its identity and relocate the shadow of latency. Relocate it to the realm of latency of the public administration, to the function of its end-ideology and the function of law. One would overstrain the decision capacity of the state-administration, if one wanted, that its constituting moment: the right, in the sense of a limited public interest to justicement, is used as an available value besides others. Is it doing so and believes thereon, than it uses formulas like ‘public interest’, ‘interest in legal certainty’, ‘equality’, ‘justice’ and so forth as superficial empty formulas and retains its own essence in the unconscious. The over abstraction of these terms serves simultaneously to secure the latency of some of the motives and decision-making basis.”
This passage shows that some basic characteristics like sentences that use nominal, accusative and possessive grammar, these cases can be identified grammatically by asking for a nominative, the case of the subject of a sentence and predicate nominative which can be a transitive verb, too, and which is revealed by the question: “Who or what?” One does not make a huge mistake when asking What between some of the sentences “[Nominal: what? One would [transitive verb 1 overstrain] [nominal phrase the decision capacity of the state administration,] [if] [who or what? one] [transitive verb 2 wanted] [that clause that its constituting moment is used as] [who or what? an available value besides others]”. The overarching grammatical pattern is that of a definition pointing to feedback loops creating an implicit “both… and” and dealing with effects of a “both… and” perspective. As Luhmann precedes he shows how the “public interest” as additional value to protect trust leads to “more attention for the system-principle of constitutional administration, which basically is less able to serve public interest” (ibid. p. 91). Differently said: non-linear effects are made visible.

Trust in 1964 cannot be hailed by asking the nominal “what?”, rather a location as a “wherein” is most significant when “failproof, but therefore partly feigned procedures of consensus-creation [like trust] can only be institutionalized within a certain social circle, which is obliged for acknowledgment of the result” (Luhmann 1964, p. 71). It can be best identified by the set of cases not dealt with in modern English. The cases which all mark the same syntactic relation, that of optional modifiers to the main verb we introduce in the paragraph

We basically know these cases from the Latin, Russian or old Indo-Germanic languages and in this case belong to the branch of ablatives, locatives, instrumentals and comitatives. The locative is the case which locates something either physically or temporally and can be identified by the question: “Where or wherein? When?” e.g. in “[When or wherein can trust be institutionalized? Within a certain social circle, which is obliged for acknowledgment of the result]”. Further in 1964 “contracts, if one or many have to input without immediate satisfaction, […] a contact has to be carried by trust” (ibid. p. 72). There the main case is another modifier to the verb “[by which means or how can a contact be carried out? by trust]” – creating an adverbial phrase using the preposition.

In the 1968 Trust the feeling of trust, too “enables relatively safe expecting and therefore, too, an absorption of residual risks, but is itself neither favorable nor unfavorable expectation, but condition for the possibility of both. Trust is the precondition for trust as for mistrust, so to say for each kind of engaging oneself into a certain type of attitude towards the future” (Luhmann 2014, p. 25). What is more obvious here, than in the so far quoted passages from 1966, is the “both… and” condition of the grammar. While in the earlier writing “both… and” seems to be the structure of what is implicit as the basic awareness or way of conscious pre-occupation, it now is pointed out clearly. Furthermore, it is now related to a direct or accusative object. This object is subjected to the “both… and” agent – “[ergative agent trust] [who or what is being or verbed? enables relatively safe expecting and therefore, too, an absorption of residual risks.] [both… and] agent but is itself neither favorable nor unfavorable expectation[,] [who or what “both…and” is being or verbed? but condition for the possibility of both]”. At the same time accusative forms we only knew from Latin in concrete form like the accusative of "place to which" show up: [subject complement or reflexive Trust is the precondition] [who or what is being or verbed? for trust as for mistrust, so to say] [who or what is being or verbed? for each kind of engaging oneself] [who or what is the place that is being or verbed? into a certain type of attitude towards the future]."
This more complex grammar shows up already on the last pages of the 1966 Right and Automation in the public Administration. While within the more polar or paradoxical sentences of 1964, like “fictions have to be depicted as realities, but may not be treated as realities” (Luhmann 1964 p. 278), one has instrumental notions recognized by the question of “How”, forming an instrumental case of causers and thus showing positive directions for action, the accusative and thus agentic sentences of 1966 show a critical stance to agentic practices and means, goal-orientation and causes: “[who or what as means or practices? If goal-orientation on the one side and justice-orientation on the other have ever provided] [who or what is being verbed as criticism? the best alternative for reducing complexity, has never been proven; neither, [instrumental as what and “both… and”] how both methods relate to each other and how they can be boxed inside each other]” (Luhmann 1966a, p. 142).

If we want to explain it solely on the basis of grammar as what sustains and is conscious perception as both a spark of information riding on it and the self-recognition of this grammatical web through the attended spark by selective apperception, one can say that it could arise through a third grammatical operation similarly as models of hierarchical complexity assume that growth and development through abstract stages is signified first by being able to think “in terms of a single, intangible, generalized abstract concept […] before teens begin to coordinate two single abstract sets into an abstract mapping” (Mascalo & Fischer 2010, p. 158) and finally systems thinkers are able after creating relations between multiple abstractions “to coordinate two abstract systems level conceptions into a system of abstract systems” (ibid. p. 159) through a third, a single principle.

The standard structure of the 1964 writing are sentences built up out of three segments: the first is either quite short, sometimes just a connective, and builds a linking to the earlier sentence, it is referential, switches from rhema to theme, from the unknown to the known – or a more elaborated version of the rhema –, and substitutes through a) short phrases, followed by two sentences which are causally connected, polarized or subordinated or b) the earlier theme is further elaborated and differentiated within a theme while the third part offers a new rhema. The third part thus is oftentimes built into the sentence by a connective which expresses an opposing or limiting statement. Follow up sentences connect through complex mechanisms of interlacing as said, they both integrate and further evaluate the earlier, they are co-subordinated and switch references fluidly.

For example, when it comes to functional differentiation “[rhema 1 subsystems can grant the invariability of their own boundaries within the overall system.] [theme 1 as new information about rhema first part Certain states, action-sequences, event-trajectories are guaranteed,] [theme 1 second part and others ruled out,] [rhema 2 limiting statement without other system members having to bother themselves.] [theme 2 Each subsystem can follow its own purpose,] [rhema 3 limiting statement without attending to it recklessly or exclusively.] [rhema 3 part two and by this stay highly indifferent against that what others are doing]” (Luhmann 1964, p. 76f). This structure matches the more complex achiever responses in the sentence completion test, which, too show instrumental and locative grammar and modifications as can be seen here: “[People who step out of line at work…] [rhema 1 with instrumental of cause often believe they have valid reasons to step out of line.] [theme 1 as new information They should be listened to [rhema 2 limiting condition however, boundaries must be set and communicated] [rhema 2 part two and consequences must be made known of behavior ignorance]” (Zavarella 2009, p. 54).

In 1966 not only the way differential sentences are connected changes: there is not as much a shift from rhema to theme, rather each sentence is a rhema itself and the connection happens in an equation-like or homonymic style through substitution and pronominal reference. So,
differentiation is defined as something that is beneficiary in a “both… and” manner, for example “[rhema 1 the society becomes more elastic, adaptive and simultaneously sustaining.] [pronominal reference as equation It can] [rhema 2 in limited doses react problem-specific.] [rhema 2 equation with new information hence fast]” (Luhmann 1966a, p. 136). There arises a new net which can hold two perspectives at the same time, through this third operation. As we can see in the sentences from 1964, there is one action-oriented part and one that is passive in the sense of describing adaptive behavior – “[active part Certain states, action-sequences, event-trajectories are guaranteed, and others ruled out.] [passive part without other system members having to bother themselves]”. – or shows adaptive processes of two co-subordinated parts – “[rhema One can only speak of a subsystem of an overarching system.] [rhema 1 subordination of subsystem if the invariability and independence from environment of the subsystem is directly or indirectly put into the maintenance-problems of the main system;] [rhema 2 adaption of subsystem if, in other words, the subsystem serves a function in the overarching system]. [rhema 2 of subordination Within the scope, that subsystems devote themselves to functions of the overall system,] [rhema 2 of adaption of overall system through subordinates it becomes structured specific to functions]” (Luhmann 1966a, p. 77).

As Luhmann (2014, p. 25) writes in the late 1960s on trust, when he says “only thus far, as the other human is not only content in the world, but steps into consciousness as an alter ego, as freedom to see things differently and act distinctly, the traditional self-concept of the world gets shattered, its complexity visible in a whole new dimension, for which at first no appropriate form of understanding and absorption is available”, to see a “both… and”, one needs to generate a new form of understanding. Gilles Deleuze, when talking about How to recognize Structuralism, too, pinpoints that precisely, when he says that “the first criterion of structuralism, however, is the discovery and recognition of a third order, a third regime” (Deleuze 2002, p. 171). This third regime shows up in many thinkers but prominently in Immanuel Kant (1998) when he in his Critique of Pure Reason introduced a third a priori or prerequisite to apprehending the world: “there is more at work than the single faculty of thinking” Kant (1998, A97) said ”namely the understanding, and the understanding itself, as a faculty of cognition that is to be related to objects, also requires an elucidation of the possibility of this relation”, a transcendental aspect. This analysis leads next to others to a series where “receptivity can make cognitions possible only if combined with spontaneity. This is now the ground of a threefold synthesis, which is necessarily found in all cognition: that, namely, of the apprehension of the representations, as modifications of the mind in intuition” (ibid. A97). All of Kant’s categories reveal this triplicity or seriality of three abstract operations, as well as the overarching trisection of time, space and the “pure, original, unchanging consciousness named transcendental apperception” (ibid. A107) that makes any integration of opposites and their “both… and” state possible.

The focus thus shifts to attempts for integration, of inner and outer, as shown earlier or in Parsons (1962) terminology: the cognitive orientation, the judgment of objects based on standards, and the appreciative value orientation, which “involves the various commitments to standards by which the appropriateness or consistency of the cathexis of an object or class of objects is assessed” (Parsons et al. 1962, p. 60), moves to a moral mode, where the impact on other action systems is assessed and how choices affect the integration of both, “his own personality system and the integration of the social systems in which he is a participant” (ibid. p. 60). The graduation of this stage might be the crossing over from reciprocal into interpenetrative in Terri O’Fallons (2013, p. 19) definition of it where “the subtle interior and the subtle exterior begin to come together”.

In the 1968 book Trust, “trust and familiarity are consequently complementary means of absorbing complexity and, like past and present themselves, chained to each other. The unity
of time, which separates past and future, however relegates them to each consecutively, and allows such a relationship of complementary accomplishments, where one of them requires trust and the other all the same familiarity” (Luhmann 2014, p. 26) – they, trust and familiarity, serve integration and are integrative parts of each other. So, while here sentences are connected through substituting the earlier ones through abstracting, e.g. thematizing it as “unity of time”, the overarching grammar moves from parataxic or equation-like "arranging side by side" or using additive conjunctions like “and” – the syndetic parataxis –, towards hypotaxis, which means as much as "arranging under", by using subordinating conjunctions like “if…”, “however”, “where” or “even if” and auxiliaries like “would”.

However, in the same way as in Luhmann’s Right and Automation we can see two distinct grammatical styles mixed in Trust. Why is that of importance? If we take standard sentence completions from the pluralist stage, they mainly fall in two categories: those which are simple parataxis or nominal phrases like “Raising a family… [nominal as is what? is a source of great pleasure, lasts too short a time, and is unpredictable]” (Hy & Loevinger 2014, p. 20) and nominal and accusative combined like in “People who step out of line at work… [nominal as is what? need to be examined individually to see] [accusative of who or what is being or verbed? both what the stepping out of lines means to them and also what it means for the organization; appropriate action can follow such an analysis]” (Zavarella 2009, p. 56). Contrary to this the Autonomous stage’s completions start to include more complex grammar and more grammatical cases reminding of Luhmann’s 1964 Achiever-like writing. For example, a sentence completion about a person stepping out of line at work at the Autonomous, i.e. Strategist, stage reveals grammar that is less action-oriented or accusative and dealing with ergative agents, but is revealing a dative-oriented structure, the case of the indirect object, which is together with the genitive of most languages indicative of possession, similar as some forms of the Latin ablative. They designate concrete or subtle spaces as the source or place from which or the time when something happened. It basically modifies nouns, pronouns and adjectives, and can be identified by the question: “Whence? From where or whom?”

So, “people who step out of line at work… [what? may be acting] [from where or whom? from a variety of motivations, some due to unresolved issues of their own, others due to genuine inadequacies in the work environment]” (Zavarella 2009, p. 61), are doing this because of some sort of being possessed by exteriors reverberating in themselves, or “people who step out of line at work… [what? are often demonstrating that something is wrong] [locative as where or wherein? in their work situation, personal life, interpersonal relations or that their goals and values about work are different than other people's]”, and thus a recognition of projected internals moves into place, that is pointing towards the place where interpenetration in the sense of O’Fallon (2013, p. 9) where “one understands projection and introjection” seems possible.

Grammar in 1968 and 1969: Pluralist vs. Autonomous

Luhmann’s criticism and questioning of the conventional “means/end-considerations together with their mathematical intermediary-calculations” (Luhmann 1966b, p. 93) between 1966 and 1968, has to make place for the turn towards a conscious preoccupation and interpersonal mode that is “a transcendental reflection […], which does not base its arguments on the complexity of social systems, rather on top of the through it enabled complexity of the world” (Luhmann 2014, p. 27). The accusative construction with the ergative agent that is verbed as an additive series of “both… ands”, that is “a conception of rationalization that brings together the social-sciences’ and the business-administration’s research areas” (Luhmann 1966b, p. 93), where “the whole interaction of task description and organization, formal behavioral rules and informal orientation, administrational large scale planning and small
tricks, which one learns at the work-place, social reconstructions and unresolvable habitual carriages, which have to be carried personally” (ibid. p. 93) is transcended and included by a new grammatical style and thematic orientations. However, this transcendental reflection that is added, and is reminding of Kant, is not directed towards ideas, but the possessive construction starts to add first elements of locative, ablative to the dative and genitive framing – which historically have fused e.g. in Greek (Blake, 2001) – and thus is rather directed towards “[what? Stabilizing] [series of accusatives of who or what is being or verbed? systems in processes of intersubjective communication, which can apprehend and reduce more complexity of the world, and direct one’s trust] [dative or ablative to whom? towards the functioning of these systems.] [Ergative agents as who or what is being or verbed? Only this way the transcendental process of world constituting and meaning can be directed] [dative as to whom or whereto? towards a higher stage of complexity]” (ibid. p. 28).

While in the accusative phase the hypotaxis superstructure, subordination of one clause to another, is much based on causal relations and auxiliaries, e.g. for Luhmann an extended “both… and” term of rationality “[has benefits.] [condition or reason because] [otherwise these factors, which co-constitute the decision process and outcome, cannot completely be considered]” (Luhmann 1966b, p. 94), that a system can be sustained “[condition or reason if] [both the code of conduct is minded and the means are fulfilled]” (bid. P. 94) or “[structuring a system towards prefabricated ideas,] [hypothetical auxiliary would reduce the capacity for complexity equally]” (ibid. p. 94), connectives become formative for contexts in 1968. This new structure of conjunction by concession, comparison and prepositional phrases as adjectives shows up for example here: “[It has to be assumed that] [prepositional phrase as adjective with growing social differentiation other elemental] [comparison as well as more demanding mechanisms become reflexive] [list of examples – the venality of money] [comparison is in the same way as the investigation] [prepositional phrase as adjective through reflexive sciences] [comparison like epistemology, logic and methodology]” (Luhmann 2014, p. 77).

The prepositional adjective phrases seemingly substitute both the use of nouns and prepositions plus verbs and comparison as well as listing structure moves beyond additive rows and “both… and” notions and the statement of absolutes and exclusives, within Luhmann’s writings of 1966, where for example “[It has to be exposed], [condition that already the] [additive phrase of nouns foundation of all decision-programs, the definition of the law-constitution, and the last means of the system,] [both and phrase are both at the same time, solution] [preposition with noun for the problem and definition] [preposition with noun for the problem]” (Luhmann 1966b, p. 94).

So, here we have to move back towards thinking about how coherence between sentences is created, too. We already mentioned that sentences are no longer processed as equations after the nominative period following the early writings of Luhmann, but by a process of integrating through abstracting parts of the earlier sentence into the later. This shift from rhema to theme, develops, too, with an intermediary step in the accusative phase: here the connection is mostly created by repeating a phrase from the earlier sentence, or a hyponymic – subordinate expression – or again through causal connectives. Coming back to Luhmann’s 1966 idea of transcending the rational means/end point of view, we can look at this development. There he writes, that “[rhema 1 a so far reaching, functional and dysfunctional, manifest and latent aspects of action apprehending theory of systems-rationality endeavors […] not basically to reach exclusively right solutions.] [theme 1 to deliver exclusively right action-rationality.] [theme 1 connected through causal connective if one is given value-parameters and situational-variables, it] [would be necessary to make strongly simplified and not seldomly unrealistic assumptions.] [hyponymous expression of rhema 2 The capacity for complexity would be reduced a prior by a preliminary deci-
sion and would especially sink below the level necessary for the realm of public administration]” (Luhmann 1966b, p. 100).

In the same way as in the 1968 Trust, the critical evaluation of simple rationality moves towards intersubjectivity, the interrelationship between sentences moves towards the mentioned mechanisms of abstraction, or synonymic and context expanding or setting lexical operations of rhema-theme interaction: “[rhema 1 One knows or anticipates that there stand, behind all object-experience, possible statements and behind all statements processes of human information-processing and not something like the unchangeable truth of being.] [theme 1 as abstraction or notion of synonymity with These processes are in principal intersubjectively controlled,] [rhema 2 as accusative shall transmit knowledge accessible for everyone] [rhema 2 expansion as contextual comparison and are by this independent of certain societal structures, particularly from higher status based on others, for example religious, political or economic, functions.] [theme 1 These principles of intersubjectivity,] [rhema 3 as possessive context and therefore the detachment of certain pre-given societal structure grants a degree of certainty of assertions and in this contemporary meaning their truths]” (Luhmann 1968, p. 61).

It is just in 1969, when Luhmann published Legitimation through Proceedings, where lexical cohesion starts to coincide with what he expressed in Functions and Consequences of formal Organization. In the same way as in this 1964 book, goal-orientation as the differentiation of organization and adaption of sub-units, became transparent, Luhmann first mentions three spheres of existence. He writes that “within closer inspection it is possible to recognize in the distribution of complexity onto different, functionally specified procedures a temporal and factual order, which both serve the integration of the overall system” (Luhmann 2017b, p. 245). One special type of rhema to theme shift here is antonymic. Seemingly the underlying structure or the superstructure in this part of a stage is that of ambiguity, synthesis or comitatives. We have already talked about trust using Luhmann’s words, but trust as emotion is considered as a variable to stabilize boundaries, too, by Luhmann in 1964. There he writes that emotions are personality functions and thus at first without social task. However: “[rhema 1 They don’t contain in themselves any guarantee to serve the sustainment of social systems, that they stabilize behavioral expectations for the purpose of the social order, within the scope of institutionalized norms and in harmony with other humans.] [antonymic rhema 2 Nevertheless, emotions can eventually find a personality-improving form, if the social order chances for expression.] [synthetic rhema 3 Thereon knot the possibilities of social-control of emotion-formation].” (Luhmann 1964, p. 373).

The same antonymic and synthetic interlacing is present in 1969, however much more complex. The grammatical markers, the locative and instrumental cases, are present again in Legitimation through Proceedings. Proceedings are means by which the interplay of emotion, as frustration or disappointment, and learning is hold within the social sphere. Here, the idea of intersubjectivity as what creates and sustains truth is further elaborated as a certain technique for integration contrary to that of differentiation Luhmann dealt with five years earlier. We can see the antonymic structure of coherence here: “[Rhema 1 The political system of a society can sustain high in-built-complexity and therefore the ability, to bring the not even remotely comprehensible number of fast fluctuating problems of society towards a decision, if it distributes the with it associated carriage of selection.] [Rhema 2 dealing with antonymic perspective An authority, even a hierarchy, could only intake relatively sparse information, could only absorb few contradictions and would decide quite primitive.] [Rhema 3 synthetic Complex systems have to be institutionalized through an interplay, which each operate under different circumstances, labor under different criteria of rationality and put into commission, which however in their
Within these quoted sentences, one can, too, see how the prepositional phrases as adjectives like “that [preposition with] [adjective growing] social differentiation” grow into prepositional phrases as adverbs, like “[verb put] [preposition into] [noun commission]” or “[verb to bring] [preposition towards] [noun a decision]”, where no longer adjectives are modified by nouns, but adverbs modify verbs and other adverbs – giving further information about them. We already pointed towards this, when we said, that the 1964 writing is drenched with cases modifying verbs. Hence integration in proceedings “[locative modification of verb as wherein? is expressed therein]” (Luhmann 2017b, p. 245), when it comes to time, and “[instrumental modification as by which means? Ordered through]” (ibid. p. 245) when it comes to the factual definition. By this, both differentiation and integration – again as in the Formal Organization – are built up through levels. However, not through systems and sub-systems but through “the differentiation and the reciprocal recognition of procedural-types as components of the overall system [which] are generally institutionalized in abstraction from the interest-situation that determines, in the individual case, the introduction and implementation of a procedure; the concrete coordination of the takeover of past output as input is ensued by a case by case distinction” (ibid. p. 246).

The third, in Luhmann’s writing from 1966 to 1969, is like Deleuze`s idea of a third, which he sees in the structuralists’ writings as “not just the real and the imaginary, but their relations, and the disturbances of these relations, […] as the limit of a process in which they constitute themselves in relation to the symbolic” (Deleuze 2002, p. 172), the development of a layer that sees the limitation of the conventional means/end-orientation and mechanic thinking first, through a mode of being aware of “both… and” as well as adapting to non-linear events. Then, as the idea of multi-variate causality beyond simple linear systems, which is before the split and thus the possible institutionalizing of both empirical research into action-theories or “which actions can fulfil certain functions with what kind of follow-up-problems […] and which actions are system-rational” (Luhmann 1966b, p. 92) and can sustain adaption in certain contexts – thus he created a more advanced version of a pluralist goal-orientation. In the third phase intersubjectivity and the enabling condition of trust and familiarity for hermeneutics came into play, which gives rise to a certain truth and a so-called postmodern quasi myth (Angus, 1990) which “makes independent from specific individual interests and coherence of experience” (Luhmann 2014, p. 34). While this third period enables integration, the idea of proceedings goes one step further and not only locates within an identity and creates instrumental means/ends-categories of the temporal, factual and integrative or social order, but elucidates how to sustain a system no longer through only maintaining its differences or boundaries but through “legitimizing itself through proceedings […] which can, within functional differentiation,” (Luhmann 2017b, p. 253) achieve "both… and" adaption to their environment and “the justice driven adaption of the environment to the system” (ibid. p. 253). However, in these proceedings, we, can already see parts of the next stage: as similar to the first seeming pluralist book Luhmann published, there is an opening of the inside and outside boundary visible, that is not present in his book Concept of Purpose and Rationality of Systems.

In this book, published between Trust and his 1969 writing, Luhmann moves away from a value-orientation of what he calls the “transitivity of values” (Luhmann 2016, p. 43), where for him trust and familiarity were on top of an intransitive value-hierarchy – a postmodern myth as we said: one that prioritizes without stating it – informing “informing a value-relation regarding the effects of actions” (ibid. p. 44). Still in the grammar of the third period he writes that “[theme determination of purpose implies, [whom to is the value or whose value that the value of the
intended purpose can.] [context setting as genitive independent of the values or unworthiness of the side effects] [comparison centering around genitive respectively the assigned purposes of other actions.] [preposition as adjective pointing towards a whom or what? be justifying for an action]” (ibid. p. 44). And by this moves into the differentiation of means and ends or purposes, because, as he says in the fourth period style, [theme purpose-orientation does neither want to negate other values nor tries to generally subordinate them] [locative of wherein within a certain interdependency of preferred values]” (ibid. p. 48) as its “[what is its most instrumental characteristic? functionally most signifying characteristic lies] [three locatives of wherein within its mediating double-posture within the context of causality and within the context of values]” (bid. P. 50). Here, in concordance to the concern for autonomy (Cook-Greuter 2010) of the autonomous stage, “[theme autonomy has to be generated] [instrumental of by which means? through processes of selectivity, which] [preposition as adverbial as by which means? Select with the proviso of their content’s information, a system is] [ambivalence – of course always only more or less –] [able to reduce environmental complexity, which means to sustain itself.] [polarization though it cannot completely overlook nor completely control its environment]” (ibid. p. 177).

It is in Luhmann’s 1970 book on Sociological Enlightenment, a series of essays he continued for the rest of his life, where this incline between system and environment regarding the degree of available variety and complexity completely moves into a discourse, a relation of two sides of a coding, prepared by the proceedings. As Luhmann wrote there, that once people thought that “that out of non-being cannot rise that which exists, nor out of uncertainty certainty […] In actuality however, […] the modern society has reached a degree of complexity, through which what was thought as impossible can become possible and therefore has to be thought, too” (Luhmann 2017b, p. 252), but this still needs principles of integration. Or as Jürgen Habermas (1990, p. 165) states in Moral Consciousness and Communicative action “the orientation to principles of justice and ultimately to the procedure of norm-justifying discourse is the outcome of the inevitable moralization of a social world” happening through stage growth. The movement from moral Stage 5 to Moral stage 6 thus is signified for him by shifting from looking for principles to “orientation to procedures justifying norms” (ibid. p. 167).

However, as different Habermas and Luhmann are, later does not start to think about norm-justification but about the justification of systems. Here Luhmann writes that four factors have to be overcome in their isolation and have to be seen in their coherence (Luhmann 2018c). Namely to lay bare the inner correlation of a) differences in perspective between a first and a second person, as incongruities, that serve as causes for adaption, b) latency as disregard for certain aspects of reality to orient towards goals, c) the necessity to move from univariate thinking towards a systems-theory to free the actor from being judged as deliberately ignorant and “living in a really cunning reality, as purely being a beautification of ignoble motives, but as [living within] uncomplete selection, as alto drastic simplification of a much more complicated actuality” (ibid. p. 86) and d) a functional orientation towards sustaining systems in a complex world: to live the idea of enlightenment “as expansion of the human ability to, capture and reduce the complexity of the world” (ibid. p. 81). Sentences here again become simpler – or better said: adapt into a new order of complexity – and nominal in their structure, equation-like or homonymic in their interlacing and referential between rhema and theme through pronominal cohesion, but now don’t hold a “both… and” view but a “both… and… and… and the relationship of both sides to each other”; we can see this in this passage, where Luhmann thinks about the maintenance of systems at the archaic stage of development through “[rhema 1 ‘small’ problem solutions, quantitatively reduced in regard to both, people and things.] [theme 1 with simple equation-like reference Thereby, and that is structurally very important.] [rhema 2 as “both… and” two strategies of accumulating and accommodating] [rhema the what or relationship
they are in stand in functional equivalence and contradiction. They on the one hand provide alternatives and therefore options of reduced complexity; on the other hand, they block themselves)” (Luhmann 2018c, p. 273). As we can see, the two strategies of accumulating and accommodating stand in a relationship which is again a “both... and” of a more intricate kind or as Cook-Greuter (2010) writes: “at the Autonomous stage the identification with polar opposites is still sequential […] [while] in contrast [at the Construct-Aware stage], the same dichotomy can be integrated, and non-defensively appreciated as two sides of the same coin” (p. 77)

The grammar here fits some of the examples of Susanne Cook-Greuter’s (2010, p. 76) fourth scoring category for the Construct-Aware stage of ego-development, where one has “explicit awareness of perceptions, definitions, labeling, assumptions, frame of reference, paradigms and structure in meaning making. [Which means, one is] aware of the constructed nature of self and reality, of seeing the constructed nature of reality”. People who step out of line at work… “[theme 1 as first side of “both…and” sometimes are only that – out of line – ] [rhema 1 other side of “both… and…” and other times can help,] [relationship as “both… and” by how and when they step, to redefine a more workable and appropriate line]” (Zavarella 2009, p. 66), “I am… [rhema part one as definition of relationship – a confusing complex of contradictions – ] [rhema part two as “both…ands” both good/bad, assured/self-doubting, aloof/warm at the same time” (Cook-Greuter 2010, p. 77) or “A man’s job… [Rhema 1 as “both... and” relationship notion has traditionally been the role of ‘breadwinner’, but such simplistic labeling ignores an almost infinite number of possibilities,] [rhema 2 as “both… and” limited only by that man’s conceptual model of himself and his world]” (ibid. p. 76).

However, what changes here is not only that there is a permanent awareness of how “both… ands” relate to each other. Besides, with the fourth function coming into play, that of maintaining patterns or self-thematizing, which substitutes the earlier attempts in Luhmann’s Autonomous writing, we can recognize that this assumable Construct-Aware logic looks much more like the fourth period than the writing in 1966. Strictly speaking the “both... and” period of Luhmann’s lifework differs by not using as much an instrumental framing of itself and the pointing to antinomies, but it is primarily about “understanding from” (Luhmann 1966a, p. 10). That points to the third and dative phase, instead of that of instrumentals and locatives.

Intermediate Contemplations

Since we now have dissected one complete grammatical cycle, we can contemplate these findings and add to them more granularity and additional context to place them in an overriding conceptualization of human stagewise development including: a) the fact that each developmental stage to be completed has to run through the four depicted phases, b) that not only the lifework of authors move from nominal to accusative to dative and modifying grammar but, too, a complete stage of ego-development includes all four basic semantic types as well as other models like Kohlberg’s psychology of moral development can be reconstructed in their stage and in-stage distinctions by using them, and c) a fractal structure of tiers, stages and phases that is d) accompanied by elaborating a broad consensus of thinkers at the Construct-Aware or any later stage. Afterwards we embark into a less grammatical but thematic analysis of Luhmann’s second and third phase of his writing marked by the 1984 Social Systems and the 1997 Society of Society.

For this we first show the interrelationship of the analyzed grammars with other lexico-grammatical components we hypothesize to be part of textuality of certain phases and stages of development. These phases are hypothesized as domain general and thus useful to recon-
struct and reappropriate any existing developmental scoring system as long as one gets the boundaries of their respective levels right. We theoretically offer a model with features that are “necessary and sufficient conditions […] are not accidentally true […], but that are rather rooted in the human ‘language capacity,’ and thus constitute the innate organization […] of this [human] experience” (Chomsky 2006, p. 24) as universal grammars that relate to multiple other universal hierarchies discovered in linguistics. And thus, they would allow, as Theo L. Dawson (2004, p. 3) writes in regard of the benefits of such universal measures, to “(1) meaningfully compare development across domains and contexts, and (2) examine the relationship between developmental stages and conceptual content”.

The first following section, too, exemplarily underpins the fact that each ego-developmental stage has to include all four grammatical phases which makes the Pluralist, i.e. 4.0, and Autonomous, i.e. 4.5, stages two halves of the same stage since both only include half the amount of grammars than all earlier ego-levels do, a fact that we further model in the third section of our intermediate contemplations. Thus, a series of four instead of five stages arises from Expert to Construct-Aware fusing Pluralist and Autonomous. Given that this stage deals with the function of integration we suggest calling it Integrative. For completion we show, too, that Ann Colby’s and Lawrence Kohlberg’s (2010) Standard Issue Scoring Manual aligns with both the grammatical cycles and the new stage distinctions.

The second subsection of our intermediate contemplations depicts semantics webs and thus points to the multiple paths through the four grammatical phases. It, too, argues for new tier boundaries that pay credit to a) the fact that Pluralist and Autonomous should be combined into one, the Integrative, stage and thus a pattern of four can only unfold when Construct-Aware is included into a tier with the Expert, Achiever, Pluralist and Autonomous stages and to b) the observation that there is rich evidence that part of the Construct-Aware thinker’s predicament is to complete and reflect on the completion of a quadruplicate cycle that mirrors Parson’s and Luhmann’s four phases of adaptive, goal-oriented or differentiating system and environment, integrative and latently pattern maintaining or self-thematizing.

In the third subsection that prepares the voyage into Luhmann’s writings that display Construct-Aware and Unitive stage markers the pattern of fours is included into a larger Tier structure composed of four tiers. This structure can be found in the German philosopher Georg Wilhelm Friedrich Hegel’s work as well as in that of the Indian mystic Sri Aurobindo and that can be approached by the terminology given by the American pragmatist Charles Sanders Peirce.

Contemplations on Grammar and Phases

In the 1975 Systems-theory of Society Luhmann depicts the level-differentiation of society. He writes that “a meaningful self-thematization of society can only be complete, as long as it projects its object on all three horizons” (Luhmann 2017a, p. 264). Then society becomes “in temporal perspective evolution, in factual perspective systems-differentiation and in social perspective communication” (ibid. p. 264). However, all three layers are communication, given that society for Luhmann is defined later on as letting go of the idea of intersubjectivity “that must be superseded by the concept of a self-referential-closed system of societal communication” (Luhmann 1995, S.50). Already in 1975, he sees the intersubjective just as a certain evolutionary step, a specific social system of society as “the social process of intersubjectivity which is self-constitutive” (2017a, p. 674), and communication as what is a foundational part of evolution. Hence, the third layer he describes under the head of self-thematization is best called integration or the social sphere.
This interplay of three dimensions is, too, a marker for the Construct-Aware stage as depicted by Cook-Greuter (2010) in her Dissertation about *Post-autonomous Ego-Development*. As Ken Wilber writes in *The Religion of Tomorrow*, it is the Indigo altitude, which “possesses all four Quadrants, or dimension perspectives” (Wilber 2018, p. 521), and the Construct-Aware altitude is just one step away of this. Additionally, here Luhmann recognizes self-thematization of systems which can be seen as “the subtle objects majoring to causal [meta-aware] objects” (O’Fallon 2013, p. 20) as an awareness of awareness is a requirement to do so.

Besides this cross-referencing of these three models, and others, with our enactments and observations of the implicit stage structure in Luhmann’s work, we have revealed up to now four grammatical styles which relate more or less to Barry J. Blake’s (2001) hierarchy of relational grammar, the sophistication of bringing together subject, predicates and objects in complex sentences which moves from a) subject, to b) direct object, to c) indirect object and culminates in d) oblique forms with instrumental and locative cases. This natural hierarchy or sequence is paralleled by that of Nominative (Nom) to Accusative (Acc) and Ergative (Erg) to Genitive (Gen) to Dative (Dat) to Locative (loc), to Ablative (Abl) and Instrumental (Inst). But as we have pointed out earlier one has to keep in mind that neither English nor German have all of these cases. Or, as Luhmann writes: one has to see this not as static and linear, but closer to reality “would be the form of a labyrinthic diagram, of an artwork, of a memory, or a note box with multiple entries, centers and choices of routes” (Luhmann 2017a, p. 266) when it comes to depicting the relationship of self-thematization – in this case of consciousness-development and grammar – and the differentiated layers and phases.

Nonetheless it seems useful to point towards additional parallels with linguistic hierarchies. For example studies of childhood lexical development regarding connectives, as Jacqueline Evers-Vermeul (2005) recapitulates in her dissertation, moves through four phases either when it comes to the acquisition of connectives and clauses as well as domain integration: growing from a) positive additive to b) negative additive and positive causal and positive temporal to c) negative causal and tempo-causal before becoming d) adversary.

This hierarchy as labyrinthic processes which we suppose is hypothesized to iterate with each stage as well as within each of the later depicted tiers thus showing the same universal patterns repeating with increased complexity or emergent properties and objects. For completeness a stage moves through four grammatical distinct phases, which overlap and fluctuate as the evolutionary process they are. The grammatical types can be classified through Carlo Quiles’s and Fernando López-Menchero’s (2017) *A Grammar of the modern Indo-European*, William Croft’s (2003) *Typology and Universals*, Kreyer’s (2003) Genitive and of-construction in modern written English and Blake’s (2001) *Case*. The phases are demarcated by phrases from Luhmann which originated in the particular phases and point towards their containment in the larger order of Luhmann’s quadruplicity introduced in the introduction to section 3. *The Discontinuities in Luhmann’s writings*. Figure 2 depicts the hypothesized fractal structure of phases and stages. In the final section of this article the fractal structure is unfolded across all: phases, stages and tiers.
Figure 2. Fractal structure of stages and phases within one tier; the black dots symbolize where stage and grammar collapse - the most essential and stable phase within a stage?

1. A first – adaptative – grammatical phase as the Nominative where “the displacement of complexity from the interior decision-behavior to the system-structures foregrounds yet unknown demands” (Luhmann 1966a, p. 10) where there is only the underlying, the subject, but not as an object: the case of the subject of a sentence and predicate nominative which can be a transitive verb either. It is revealed by the question: “Who or what?”

2. A second – goal-oriented or differentiating system from environment – grammatical phase of the Accusative beyond others serving to review the who or what that is being verbed “the realm of solution-possibility and follow-up-problems” (Luhmann 1966b, p. 105) as direct objects: so to speak, the accusative is the case of these direct objects of a verb. It is also used with many prepositions. It is revealed by the question: “Who or What is being or verbed?” This includes:
   a. The instrumental- or locative-like version which indicates place to which, extent or duration as well as the case which identifies the agent or the intentional performer of an action of a verb.
   b. The ergative-marked noun phrases marking encoding agents.
   c. The Genitive: the variations of the possessive case which relate to subjective and objective or could easily be reformulated into nominal or accusative phrases. They are mostly not noun phrases modifying a noun phrase. They oftentimes, contrary to English, can be formulated as a single compound word in German and can be identified by the question: “Whose? From what or what of?”

3. A third – integrative – grammatical phase of the cases where, at the Autonomous stage, as Luhmann 1968 (p. 10f) points out, “world-plot and own identity, become to him [man] a component of his own system-structure and to a behavioral-basis, in so far as he experiences other people, which actually experience, what is possible for him, and who simultaneously identify him as object, so that he can adopt their point of view and identify himself”. This phase seems to be the prerequisite for the subject to object move Robert Kegan (1982) depicts in The Evolving Self, namely where “what was immediate becomes mediated by a new immediate […] , a differentiation from that which
was the very subject of my personal organization and which becomes thereby the ob-
ject of a new organization on behalf of a new subjectivity” (Kegan 1982, p. 85). Which
contains all cases recognizing to whom something happens or by whom something is
possessed or some form of comparative and dependency. Including:

a. The Genitive: the variations of the possessive case which cannot easily be trans-
formed into nominal or accusative phrases. Noun phrase modifying a noun phrase
and can be identified by the question: “Whose? From what or what of?”

b. The Accusative: in its forms where it indicates indirect causality and hence substi-
tutes or mirrors the dative as in “identify him as object” versus “identify an object”.

c. The Dative: the case of the indirect object. It also indicates possession, and benefi-
ciary of an action. It shows up with ditransitive verbs and parataxic sentences and
is revealed by the question: “From Whom? Whom or to What?”

d. The Ablative or Locative which basically indicate a Dative: the source or place
from whom or which something comes.

e. The Prepositional: variations as adjectival prepositional phrases leading to compa-
orative structures, contexts as well as denoting the receiver, often of something
new, e.g. “is possible for him”.

4. A fourth – self-thematizing or pattern maintenance – phase of those cases which all
mark the same syntactic relation, that of optional modifiers to the main verb building
prepositional phrases as adverbs and expressions, of “instrumental and expressive kind,
which serve the solution of system-problems and in this sense the maintenance of sys-
tems” (Luhmann 2017b, p. 226). It is the difference of inside and outside, of experience
and action and other dichotomies or antinomies that create location, direction and
means as well as “meaning that is necessarily bound to this double-structure of selec-
tion” (ibid. p. 93). This fourth phase allows one e.g. at the Autonomous stage to be
seen as “identity, which is the means to sustain oneself in a complex and volatile Envi-
ronment through stabilizing an Inside/Outside difference” (Luhmann 2016, p. 175).
Expressing itself through discord and/or as concord and synthesis often in the form of
or accompanied by categories e.g. “an instrument” or by “the instrument” or within
“the place”:

a. The Ablative and Locative forms: the source or place or time wherein or towards
which something happened which can be identified by the question: “Whence?
Whereto?” As well as either physical or temporal places correlating roughly with
prepositions like “in” and “under” thus create inside/outside, means/ends and lay-
ers which can be identified by the question: “Wherein? Whereunder?”

b. The Instrumental: the case which signifies the means and the agent present in or
while performing an action. It can be identified by the question: “How? With what
or using what? By what means? With whom?” And, which includes expressing the
agent of the passive and is almost always inanimate e.g. as the “proceedings” of
1969 in contrary to the first and second person “decisions in man and systems” and
the “feedback on agents” of 1966a and the 1966b third person direct objects of cer-
tain empirical, rational, multivariate “schemes” and the incoming of the human and
animate “intersubjectivity” of 1968.
c. The Prepositional: verbs that take on the form of a prepositional phrase indicating goal or dynamics between differential antinomies or comitatives sometimes followed by accusative as the attaining of a direct object as categories by which something can be intended or wherein something lies.

As Table 4 shows exemplarily for the Achiever, i.e. 3.5, stage: one can sort through sentence completion items and align them with these phases. Each of the major stages up to Pluralist, the Diplomat, Expert, Achiever, can be sorted using the four phases or a more process like view of multiple grammars adding to each other hierarchically.

Table 4. Four phases within the Achiever or Conscientious Stage of Ego-Development derived from Zavarella’s (2009) Item 27 “People who step out of line at work…”.

<table>
<thead>
<tr>
<th>Phases &amp; Case Structure</th>
<th>Sentence Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase 1 – Adapta-tive:</strong> Nominal: “Who or What?”</td>
<td>People who step out of line at work… (\ldots)are probably the most interesting. (\ldots)are probably creative.</td>
</tr>
<tr>
<td><strong>Phase 2 – Goal-Oriented:</strong> Accusative: “Who or what is being or verbed?”</td>
<td>(\ldots)should be given a chance to explain their actions. (\ldots)probably have something interesting to say.</td>
</tr>
<tr>
<td><strong>Phase 3 – Integra-tive:</strong> Dative: “To Whom or What?”</td>
<td>(\ldots)can sometimes have something different and useful to contribute to the organization. (\ldots)are annoyances to the people they work for and should be prepared to seek alternative employment.</td>
</tr>
<tr>
<td>Genitive: “Whose? From what or what of?”</td>
<td>(\ldots)are often doing so to revel against unduly restrictive rules and regulations of their peer group. (\ldots)sometimes have good reasons, others will need a firm word to insure their actions will not be repeated.</td>
</tr>
<tr>
<td>Ablative: “Whence? From where or whom?”</td>
<td>(\ldots)should be talked too, to find out why and if there is something to be learned from either side. (\ldots)should be counseled as to how better to express their dissention while still being respectful of others.</td>
</tr>
<tr>
<td><strong>Phase 3 – Self-Thematization:</strong> Locative: “Where or wherein?”</td>
<td>(\ldots)need to be steered in the right direction and shown the effect their behavior has on everyone surrounding them.</td>
</tr>
<tr>
<td>Instrumental: “By which means? For which ends?”</td>
<td>(\ldots)should not necessarily be punished. The source for their action should be determined and investigated in order to resolve the problems upon which their behavior is based.</td>
</tr>
</tbody>
</table>
As pointed out this approach does not work for Pluralist and Autonomous since the Pluralist stage as depicted by Loevinger and Cook-Greuter synthesizes its meaning on the basis of a nominal and accusative lexicogrammatical web while the Autonomous solely draws on the dative and modification web – thus, taking this approach makes them combine themselves into one stage. This than complete four phased stage, as said, might best be called the Integrative following Charles S. Pierce’s dictum in the *Ethics of Terminology* that the “the first rule of good taste in writing is to use words whose meanings will not be misunderstood” (Peirce 1988, p. 265). Indeed, this is necessary to avoid equivocation and provide “that the different meanings are remote from one another, both in themselves and in the occasions of their occurrence” (ibid. p. 264). Calling it integrative thus serves both ideas inherent in the dictum: firstly, it clearly shows the distinctiveness from the ego-development trajectory discovered and advanced successively from Loevinger, to Cook-Greuter and finally O’Fallon and secondly it pays credit towards the trajectory depicted by Parsons and Luhmann as well as many others as shown later.

By this the scope of this Integrative stage matches moral stage 4/5 and moral stage 5 as depicted in Lawrence Kohlberg’s (2010) *Standard Issue Scoring Manual for the Measurement of Moral Judgement*. As Table 5 (below) exemplarily shows, early versions of a moral stages tend to use nominal and accusative grammar, while later or second half version tend towards dative and modifying grammar – of course these are tendencies with some exceptions of crossing over into earlier or a bit later grammar, within a quarter of this four phased growth cycle. The examples in Table 5 stem from answers on the Heinz Dilemma, where a husband has to either steel a drug to save the life of his wife or passively watch her die.

After we now took a look at an expanded scheme of the grammars introduced under the heading 2.b.i *Within a Sentence: Subject. Predicate, Object Variations*, hypothesized about the interconnection of them with other linguistic hierarchies and hypothesized a fractal structure of the overall developmental scheme and measuring scale we have shown the existence of all these grammatical types as a way to sort through sentence-completions of the Achiever, i.e. 3.5, stage of Ego-Development via increasing grammatical complexity. This served as an exemplary representation for the variety of lexicogrammatical overlays a stage should include for having the whole four phased range our proposed domain general scoring metric suggests as the universal width of a stage. By way of example we additionally have shown how Lawrence Kohlberg’s (2010) scoring scheme uses the same direction of growth throughout a stage however, not four phased but each stage split into an early and late version. The next section will give even more granularity to the grammatical superstructure or substance of each potential ego on the path of self-discovering a trajectory that is, too, depicted through the terminologies of more than a dozen scientists and philosophers in the following.
### Table 5. Responses on the Heinz dilemma and their Grammar in concordance with levels of Ego-Development.

<table>
<thead>
<tr>
<th>Case Structure &amp; Stage</th>
<th>Question on Moral Dilemma</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expert</strong> Stage 2/3</td>
<td>Would a good husband think it is his duty to steal and Why?</td>
</tr>
<tr>
<td>Nominal and Accusative:</td>
<td>[Nominal part <em>Well, I think it would if his wife is going to die.</em>]</td>
</tr>
<tr>
<td>“Who or What?”</td>
<td>[Accusative part <em>he wouldn’t have much choice.</em>] (Colby &amp; Kohlberg et al. 2010, p. 19)</td>
</tr>
<tr>
<td><strong>Stage 3</strong> Instrumental and Locative:</td>
<td>“Where or wherein? By which means?”</td>
</tr>
<tr>
<td>“Who or What?”</td>
<td>[Nominal as adjectival instrumental: “how was he?” <em>He should not have been so selfish</em>]</td>
</tr>
<tr>
<td></td>
<td>[Comitative part with possessive <em>With that drug of his,</em> and I think Heinz did right]</td>
</tr>
<tr>
<td></td>
<td>[Locative part as time <em>when he did break</em>]</td>
</tr>
<tr>
<td></td>
<td>[Locative part as interior <em>into that store</em>] (ibid. p. 22)</td>
</tr>
<tr>
<td><strong>Achiever</strong> Stage 4</td>
<td>Nominal and Accusative: “Who or What?”</td>
</tr>
<tr>
<td>Nominal and Accusative:</td>
<td>[Nominal as genitival accusative <em>Because it is a matter of life and death,</em>]</td>
</tr>
<tr>
<td>“Who or What?”</td>
<td>[Accusative as temporal subordinate <em>then you are balancing the financial greed of one person against a life.</em>] (ibid. p. 32)</td>
</tr>
<tr>
<td><strong>Pluralist</strong> Stage 4/5</td>
<td>Nominal and Accusative: “Who or What?”</td>
</tr>
<tr>
<td>Nominal and Accusative:</td>
<td>[Nominal part <em>The commitment to another person</em>]</td>
</tr>
<tr>
<td>“Who or What?”</td>
<td>[Accusative part: series of accusatives which involves a total commitment and, in a sense, he is taking the action because she cannot take it herself,*]</td>
</tr>
<tr>
<td></td>
<td>[Nominal part: a third which holds “both… and” in the sense of a marriage being this kind of thing, something in two bodies,*]</td>
</tr>
<tr>
<td></td>
<td>[Nominal part: conjunctive as equation and in that sense there is not much difference in terms of responsibility of her,*]</td>
</tr>
<tr>
<td></td>
<td>[Accusative part trying to do something for him,*]</td>
</tr>
<tr>
<td></td>
<td>[Nominal part: <em>That involves a commitment to each other and, too, some kind of form of life or something like that</em>] (ibid. p. 49)</td>
</tr>
<tr>
<td><strong>Autonomous</strong> Stage 5</td>
<td>Instrumental and Locative: “Where or wherein? By which means?”</td>
</tr>
<tr>
<td>Nominal and Accusative:</td>
<td>[Nominal part as locative <em>…it revolves around what I was saying just now about rights</em>]</td>
</tr>
<tr>
<td>“Who or What?”</td>
<td>[Comitative part that kind of go with a human being,*]</td>
</tr>
<tr>
<td></td>
<td>[Adversative part but really those rights have been defined,*]</td>
</tr>
<tr>
<td></td>
<td>[Instrumental part: “by which means?” by us as people, by agreements that we reached through some kind of social process…*]</td>
</tr>
</tbody>
</table>
Contemplations on Semantic Webs

Terri O’Fallon’s stage theory is based strongly on the use of passive and active language. However, as we can see simplified in Table 4, the accusative phase of the active 3.5 or Achiever stage can take on passive form – there should be “given a chance” But more intriguingly is what happens in the dative or genitive phase where semantic structure allows the adding of some sort of a beneficiary by growing into a grammatical form which existed in Kalkatungu, an extinct Australian Aboriginal language, sometimes called the anti-passive. This term is derived from the recognition that it “is a derivation that allows access to the privileged relation” (Blake 2001, p. 57), to become not only patient but beneficiary – the object to a new subject, so to say, that might be outside of oneself. It is similar to cases like the beneficiary applicative and the instrumental or comitative applicative, where a participant of a sentence is advanced to assume the grammatical relation held by the patient including typical instrumental or comitative markers, too, to move for example “the internal orientation from patient into a manner” (Martin 2000, p. 392) or purpose expression or a direct object is stated in a way that it is a possible passive subject, e.g. “[passivized stepping out of line The source for their action should be determined and investigated] [purpose or reason for being passive in order to resolve the problems upon which their behavior is based]”. It creates a move from actor or reflexivity to beneficiary.

But again, this is part of a larger hierarchy, where each phase can show a unique sort of passive structure complementing its active variations. This hierarchy of universals, too, forms a “semantic field with various diachronic and synchronic connections between all of the three [later, b) to d)] categories” (Gast & Siemund 2006) from a) intensifiers like “the most” including anti-causative or de-objective as passive and intransitive verbs to b) reflexivity e.g. in “given a chance to explain their actions” with impersonal forms of passive and transitive verbs, c) referential disambiguation, or variation of context, accompanied by adnominal intensifiers leading to so-called emphatic reflexivity like in “[the identity of accidents constitutes the temporal problematic of accumulation, namely the progress of the present as an ever actual moment, which cannot automatically] [adnominal intensifier 1 carry itself what it accumulates, rather has] [adnominal intensifier 2 with ditransitive verb to seek itself retention and accession]” (Luhmann 2014, p. 17) and di-transitive verbs – verb forms followed by two or more objects allowing for natural reciprocity – to d) role disambiguation through actor-oriented intensifiers, which are used to relate a proposition to a set of alternative propositions and by this create an 1) actor-role assigned to 2) an actor or instrumental category 3) other than the referent, thus managing full reflexivity by having 4) “a different thematic role in the alternative propositions, e.g. that of an external causer or beneficiary” (Gast & Siemund 2006, p. 14). A case form we can observe in Luhmann’s 1969 writing: “[proposition 1 Thus far as systems start to orient on the basis of temporally distant effects] [actor-oriented intensifier by themselves,] [proposition 2 where system is negative beneficiary well, in regard to purposes, the present in itself becomes problematic]” (Luhmann 2017b, p. 226). This structure is contrary to the intransitive verbs of the first phase, too, signified by so-called derived intransivity expressing itself e.g. through “orient by themselves” which contrary to “to seek itself retention” lacks any necessity for an object, like intransitive verbs in the first phase do, either. The possibilities for expressed grammar are manifold and suggest that there are many variations of each stage including passive and active versions of grammar.

Obviously, the manifold possibilities opening up between the realm of lexis and that of grammar lead to certain lexico-grammars which carry the discourse of a culture within a certain stage as variations or differences and reappropriations. Exemplarily this can be shown using Luhmann’s (2016) depiction of a sequence of cause, effect, the values to whom both
cause and effect exist and the judgment of means/ends by combining it with Martin Haspelmath’s (2003) semantic web for dative constructions from *The Geometry of Grammatical Meaning*. We can see the drawing, in Figure 3. This table illustrates some of the markers we have mentioned so far and how they can form different types of dative, using different indirect objects, in the third phase to depict the non-linearity and labyrinthic possibilities of grammar.

**Figure 3.** Approximate Semantic Web for different Dative-Types; based on Haspelmath (2003) and Luhmann (2017b).

Furthermore, Figure 4 (below) sums up some of the markers regarding the phases, portraying them as a fractal of stages, phases, grammars and content as conscious preoccupation directed towards different modes of character development and interpersonal style.
<table>
<thead>
<tr>
<th>Expert</th>
<th>Achiever</th>
<th>Pluralist &amp; Autonomous</th>
<th>Construct-Aware</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; Phase</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Phase</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; Phase</td>
<td>4&lt;sup&gt;th&lt;/sup&gt; Phase</td>
</tr>
<tr>
<td><strong>Grammar &amp; Preposition:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominal</td>
<td>Accusative</td>
<td>Dative</td>
<td>Modification</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Preposition as Adjective</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Preposition as Adverb</td>
</tr>
<tr>
<td><strong>Animation:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt;/2&lt;sup&gt;nd&lt;/sup&gt; Person</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; Person</td>
<td>Animate</td>
<td>Inanimate</td>
</tr>
<tr>
<td><strong>Grammatical Roles:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject</td>
<td>Agent-Patient</td>
<td>Recipient</td>
<td>Beneficiary</td>
</tr>
<tr>
<td></td>
<td>Cause</td>
<td>Source</td>
<td>Comitative</td>
</tr>
<tr>
<td>Conjunctive</td>
<td>Disjunctive</td>
<td>Comparative</td>
<td>Adversary</td>
</tr>
<tr>
<td>Monologues</td>
<td>Hierarchy</td>
<td>Trajectories</td>
<td>Levels</td>
</tr>
<tr>
<td><strong>Reflexivity and Valence of Verbs:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anticausative</td>
<td>Potential</td>
<td>Passive</td>
<td>Causative</td>
</tr>
<tr>
<td>Deobjective</td>
<td>Reflexive</td>
<td>Empathetic</td>
<td>Reflexive</td>
</tr>
<tr>
<td>Intensifiers</td>
<td></td>
<td>Adnominal Intensifiers</td>
<td>Action-Oriented Intensifiers</td>
</tr>
<tr>
<td>Intransitives</td>
<td>Transitives</td>
<td>Di-Transitives</td>
<td>Multi-Transitives</td>
</tr>
<tr>
<td><strong>Sentence Coherence:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equation-like</td>
<td>Causal</td>
<td>Contextual</td>
<td>Antonymic</td>
</tr>
<tr>
<td>Homonymic</td>
<td>Hyponymical</td>
<td>Synonymous</td>
<td>Adversary &amp; Synthetical</td>
</tr>
<tr>
<td></td>
<td>Condition &amp; Reason</td>
<td>Comparative &amp; Concession</td>
<td></td>
</tr>
<tr>
<td>Simple Coordinate</td>
<td>Subordinate</td>
<td>Reference-Switch</td>
<td>Cosubordinate</td>
</tr>
<tr>
<td><strong>Sentence Type:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additive</td>
<td>Causal</td>
<td>Temporo-Causal</td>
<td>Adversary</td>
</tr>
<tr>
<td>In-Time</td>
<td>Temporal</td>
<td>Negative Additive</td>
<td>Synthetic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Negative</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 4.** Hypotheses about Stages, Phases and a Semantic Web depicting some of the Grammars.
Contemplations on Stage Patterns

We hypothesized before that even though Terri O’Fallon’s stage theory proposes not only, and applies in its measurement, four phases but, too, offers overarching pattern of passive, active, reciprocal and interpenetrative, that her pattern within what she calls the subtle tier ends with the third phase of Parson’s and Luhmann’s patterns – as well as after three complete grammatical cycles not four. We can only exemplarily show that both stages basically have a “both… and” point of view, that only matures from nominal and accusative – the Pluralist – towards dative, possessive and modifications – the Autonomous – instead of a qualitatively distinct mode of operation and conscious-preoccupation with a new object and meaning within the quadruplicate scheme of adaptation, system and environment hence goal-orientation, integration and self-thematization. Table 6 depicts this exemplarily for two different modes of using the grammatical overly of “both… and”: a positive as well as negative scheme and a two positive sides of what would be a polarity at the Achiever stage.


<table>
<thead>
<tr>
<th>Pluralist/4.0</th>
<th>Autonomous/4.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>responses including Nominative &amp; Accusative:</td>
<td>Responses including Dative, Possessive &amp; Modifications:</td>
</tr>
<tr>
<td>Three meaningful and differential components as “both… and” as positive &amp; negative:</td>
<td>Three meaningful and differential components “Both… and” as two positive poles:</td>
</tr>
<tr>
<td>A good boss… [Theme as first side of pole: positive as Nominative: “Who or what?” Demands excellence] [Rhema 1 as second side of pole: Negative as Accusatives: “Who or what is being or verbed?” but provides for the development of the skills and attitudes] [Rhema 2 as Accusative: “Who or what is being or verbed?” necessary to achieve it.] (Miniard 2002, p. 61)</td>
<td>A good boss… [Theme as Instrumental Categories: “Has which means?” has a clear sense of self and a vision of a future state – both] [Rhema 1 as first side of pole: Comitative: “With whom or what?” which are compatible with colleagues, co-workers and with the organization] [Rhema 2 as second side of pole: Instrumental: “through which means?” and which are conveyed to others through example, not words.] (Miniard 2002, p. 70)</td>
</tr>
<tr>
<td>A good boss … [Theme as Nominal “both… and”: “What?” both supports and challenges.] [Rhema 1 as first side of a pole – supervises: Accusative: “Who or what is being or verbed?” uses a variety of supervisory methods and] [Rhema 2 as second side of a pole – diversity or freedom: Accusative: “Who or what is being or verbed?” cherishes diversity.]</td>
<td></td>
</tr>
</tbody>
</table>

We already pointed towards the end of Terri O’Fallons iterating cycle in the subtle tier with Luhmann’s third and fourth phase within the Integrative stage of his life work, i.e. within
the Autonomous stage, when we, too, pointed to Kant’s way of integrating inside and outside. Most famous for dealing with projections is Carl Gustav Jung. When he writes in *AOIN Research into the Phenomenology of Self*, that “although, with insight and good will, the shadow can to some extent be assimilated into the conscious personality, experience shows that there are certain features which offer the most obstinate resistance to moral control and prove almost impossible to influence. These resistances are usually bound up with projections, which are not recognized as such, and their recognition is a moral achievement beyond the ordinary” (Jung 1970, p. 9), Jung moves seemingly exactly from a fourth-phase grammar, using adver- sative conjunctions as well as locative and comitative modifications, into a more nominal style of the early Construct-Aware, i. e. the 5.0 stage of O’Fallons model characterized by an “insight around projections in one’s interior experienced in the moment. The witness (awareness of awareness) is activated and it becomes aware, in the moment of projections arising” (O’Fallon 2010, p. 60).

Looking at Luhmann’s understanding of his four phases adaption or the temporal dimen- sion and self-thematization as the maintenance of identity show up as opposite sides of a coin, as major polarities or antinomies: While “adaptation as a learning process, reflection [as self-thematization] is a constituting process. In the process of adaption contingency has to be under- stood as ‘dependency from…. ‘. Within the process of reflexivity contingency has to be understood as non-necessary possibility. Classically framed: Causality and freedom are not mutually exclusive, rather different expressions for the process of contingency” (Luhmann 2017a, p. 920f). So, there arises less the iterating movement from passive to active and the passive receptive to the active interpenetrative but more of a polarity between the first and the last and that of individual goal-orientation and integration.

That reminds of the great polarity Friedrich Georg Wilhelm Hegel (2011) points out in his *Encyclopedia of philosophical Sciences*, when he comes to his perspective on psychology and the subjective as well as the objective mind. In the passages about the objective mind he spans a trajectory of moral maturation from right or law, over morality towards the ethical life. The sphere of right subsumes or synthesizes two types of psychological functioning: the con- sciousness which has the soul as its object and the mind “which declared itself to the truth of the soul and the consciousness” (Hegel 2011, §440). Within the right the free will of mind, which has its destination still on the outside, has to direct its means towards the end of ownership. This is only possible based on consciousness which itself is, “by itself and for itself, the change of the object. Consciousness appears therefore differently established determined following the difference of the objects” (ibid. §415) and is in its more mature form of self-consciousness an “I = I […] in which the I merges with itself [as on object of desire] and becomes satisfied by this, becomes a real” (ibid. §§424 & 428). It is like Luhmann’s view on adaption as it is adaptative and dependent on what is in both “the subject and the object identical” (ibid. §415). Consciousness matures towards reason and the mind, which as free will “directs its inner destination and purpose on an externally found objectivity” (ibid. §483), and from an orientation towards right into morality. But as morality is based on an “infinity of subjectivity” (ibid. §511), on the recognition of the uniqueness or specialness of everyone, it creates both a highly relative world and the need for relational modes of understanding. Hegel (2011) mentions dialectics as such a proceeding but as Karl Ott Apel (2016) points out in his essays on *Discourse and Responsibility*: there is a necessary and next step which is especially grounded “in the Hegelian presupposition for the possibility for truth” (Apel 2016, p. 72f). This possibility for truth shows up in the *Encyclopedia* as “the truly ethical life […] [where] the disposition of the individuals is the knowledge of the substance and the identity of all its interests with the whole” (Hegel 2011, §403). Here, the individual and self-conscious freedom is directed as “un-intermediate general reality and simultaneously custom […] to create both
through its occupation” (ibid. §514). This ethical substance can, too, be called trust: as each knows anyone else only within the shared whole and as shared identity. It is again and in the same way as for Luhmann a oneness of inside and outside, but where it first came from the outside towards the receiving end of the inside it is now the inside or shared substance which is directed outwards.

One can find this pattern in the writing of the Indian saint Sri Aurobindo, too. At the end of the trajectory of separate self is an intermediate stage which is not yet completely spiritual but no longer completely mental either: the higher mind. “This higher mind is able to perceive and deal with other souls as other forms of its pure self” (Aurobindo 2005, p. 181) in the same way as for Hegel the truly ethical life arises, when “inside touches inside”. More mundane formulated by Kohlberg: being at moral stage six means having “the perspective of any rational individual, that acknowledges the essence of morality or acknowledges that any human contains within itself its end-purpose and has to be treated accordingly” (Kohlberg 1996, p. 132). This reverberates what Abraham Maslow (1993) considered extraordinary in the rare individuals he discovered and named self-actualizing. “They tend to agree about what is right or wrong, as if they were perceiving something real and extra-human rather than comparing tastes that might be relative to the individual person” (Maslow 1993, p. 9). Not only has Kohlberg four abstract stages, but Abraham Maslow, too, creates a seriality of four distinct modes of psychology: namely as first behaviorism, as second the cluster originating in Freud, and the “‘Third Force’ […] that includes the first and second group” (ibid. p. 4) as humanism plus the fourth of transcendence. Aurobindo, as well, one might suggest has a four-phased pattern as the higher mind as the intermediary integrates the mind proper which “is divided into three parts—thinking Mind, dynamic Mind, externalizing Mind – the former concerned with ideas and knowledge in their own right, the second with the putting out of mental forces for realization of the idea, the third with the expression of them in life” (Aurobindo 2012, p. 177). For this mind proper, there, too, again is an intermediary necessary – the mental vital, connecting the mental with the physical life.

As Hegel (2019a, p. 746) himself writes in the Science of Logic “the term counted as third can also be counted as fourth, and instead of a triplicity, the abstract form [of dialectics out of thesis, antithesis and synthesis] may also be taken to be a quadruplicity; in this way the negative or the difference is counted as a duality”. Despite Hegel himself staying with the form of triplicity for esthetical reasons or because “it is this unity, or that the entire form of the method is a triplicity, is indeed nothing but the merely superficial, external side of cognition; […] because it has always been recognized to be the universal form of reason” (ibid. p. 746f), the Slovenian philosopher, cultural critique and lacanian psycho-analyst Slavoj Žižek (1999), too, extracts this quadruplicity in his book The Ticklish Subject. This leaves us with a tier pattern as depicted in Table 7 which is according to Žižek (1999, p. 80) “the longing for reconciliation with a lost totality, […] the fourth moment, ethical substance, ‘second nature’”. We depicted the phases including some of the here mentioned authors, to show, how theses phases are reappropriated in different and unique ways with even using the same words for other phases. As shown semantic webs can take on different form thus different people supposedly perceive same a prior grammar through a different lexical field.
### Table 7. Patterns of the phases based on Hegel 2011 and Luhmann’s life work in comparison to other authors mentioned during the course of this article.

<table>
<thead>
<tr>
<th>Pattern</th>
<th>O’Fallon</th>
<th>Cook-Greuter</th>
<th>Angerer</th>
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<tbody>
<tr>
<td>Thesis</td>
<td>3.0</td>
<td>3.4</td>
<td>1st Phase</td>
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<tr>
<td>1st Negation</td>
<td>3.5</td>
<td>4</td>
<td>2nd Phase</td>
</tr>
<tr>
<td>2nd Negation</td>
<td>4.0 &amp; 4.5</td>
<td>4/5 &amp; 5</td>
<td>3rd Phase</td>
</tr>
<tr>
<td>Synthesis</td>
<td>5.0</td>
<td>5/6</td>
<td>4th Phase</td>
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<thead>
<tr>
<th>Hegel</th>
<th>Subjective Spirit</th>
<th>Objective Spirit</th>
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<tbody>
<tr>
<td>Consciousness</td>
<td>Free Will</td>
<td>Rights</td>
</tr>
<tr>
<td>Self-Consciousness</td>
<td>Subjective Will</td>
<td>Morality</td>
</tr>
<tr>
<td>Mind</td>
<td>Substantial Will</td>
<td>Ethical Life</td>
</tr>
<tr>
<td>Objective Spirit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hegel</td>
<td>Self-Thematization</td>
<td>Other for Other</td>
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<tr>
<td></td>
<td>Pattern Maintenance</td>
<td>Despotism</td>
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<td></td>
<td></td>
<td>Relationality</td>
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<td></td>
<td></td>
<td>Intersubjectivity</td>
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<tr>
<th>Parsons</th>
<th>Cognitive Mode</th>
<th>Adaptation</th>
<th>Goal-Orientation</th>
<th>Integration</th>
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<tr>
<td></td>
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<td>Development</td>
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<td>Value-Orientation</td>
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<th>System-Environment</th>
<th>Integration</th>
<th>Self-Thematization</th>
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<tr>
<td></td>
<td>Temporal</td>
<td>Factual</td>
<td>Social</td>
<td>Identity</td>
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<td>Latency</td>
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<tr>
<th>Kant (first Critique)</th>
<th>Time</th>
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<td>Spontaneity</td>
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<td>Intuition</td>
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<tr>
<td>Inherence and Subsistence (substantia et accidens)</td>
<td>Causality and Dependence (cause and effect)</td>
<td>Community (reciprocity between agent and patient)</td>
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<tr>
<th>Kohlberg &amp; Habermas</th>
<th>Conventional: Incomplete Reciprocity and Duty vs. Inclination</th>
<th>Post-Conventional: Complete Reciprocity and Autonomy vs. Heteronomy</th>
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<tbody>
<tr>
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<td>Stage 4: Maintaining the Social Order</td>
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<th>Interpersonal Mode</th>
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<tr>
<th>Aurobindo</th>
<th>Mind Proper</th>
<th>Almost Spirit</th>
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<tr>
<td>Externalizing Mind</td>
<td>Dynamic Mind</td>
<td>Thinking Mind</td>
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<tr>
<td>Conceptual Origination:</td>
<td>Physical Origination:</td>
<td>Perfected Actuality:</td>
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<tr>
<td>Adjusting of valuation</td>
<td>Actuality but deficiency in the solidarity</td>
<td>Oneness without loss of individuality</td>
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<tr>
<th>Whitehead</th>
<th>Actual Entities</th>
<th>Eternal Objects</th>
<th>Substantial Activity</th>
<th>God</th>
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<tbody>
<tr>
<td>The things to be received</td>
<td>The act of perception</td>
<td>The manner of reception</td>
<td>The subjective purpose</td>
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<tr>
<th>Sartre</th>
<th>Isolation</th>
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<tr>
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<th>Now of Consciousness facing an Object</th>
<th>The Present Tense of Discourse</th>
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<th>De Chardin</th>
<th>Centering everything partially upon oneself</th>
<th>Being able to center oneself upon oneself constantly</th>
<th>Being brought into association with all the other centers</th>
<th>Birth of some single center from the convergent beams of million centers</th>
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**Preliminary Contemplations on Tier Patterns**

However, for Hegel “the subjective spirit and the objective one are [only] seen as the way through which […] the absolute spirit as reality that is equally eternal in itself as it is returning and returned Identity; the one and general substance as spiritual […] as the certitude of the objective truth” (Hegel 2011, §§553-555). It is itself not only holding together the subjective and the objective spirit, but is, too, the culmination of a trinity of layers called being, essence and notions – for many reasons we simplify here again. Notions are generalized and enduring interpretations and culminate in ideas which are truth in itself and for themselves but these notions and ideas are “still the idea in its subjectivity, and hence in its finitude in general. It is […] [their] purpose that ought to realize itself, or the absolute idea itself still in its appearance” (Hegel 2010, p. 696). The absolute idea alone is for Hegel (2010, p. 735) “being, imperishable life, self-knowing truth, and is all truth”. And that especially as it brings together the ideas and notions with being – the seriality of phenomenological appearances – as well as with essence – the moment where being becomes mediated with itself through another, the negativity of itself.

For the founder of pragmatism, Charles Sander Peirce (1998), these three layers can be called firstness, secondness and thirdness or the ideas of first “a Quality of Feeling […] [, and] of that which is such as it is as being Second to some First, regardless of anything else […] that is to say, it is Reaction as an element of the Phenomenon […] [while] the Third is the Idea of that which is such as it is as being a Third, or Medium, between a Second and its First. That is to say, it is Representation as an element of the Phenomenon” (Peirce 1998, p. 160).

For Luhmann (2018b) society or first order observations can be considered as some kind of third, or the interpretant between phenomenon, hence communication and the reactions, the differences and identities of systems. However, for Luhmann a truth as that which Hegel points to, does not exist, neither a pragmatic consensus as Peirce thinks of, when he points to his categories. While the first order observer ends with notions, “statements about invariant foundations, about nature and necessities […] [, while for the second order observer] anything that the first order observer observes […] depends on the distinctions which where underlying the observations; and it always can be different distinctions” (Luhmann 2018b, p. 1121f). There is a contingency for the second order observer, which it, contrary to the first order observer, can choose where it creates latency and blind spots and thus to it “the world appears as constructions based upon different distinctions” (ibid. 1122).

Though, for Luhmann no truth exists but anything, whether called subjective or objective, accidental or substantial, truth or lie, actual or possible, is contingent, the reduction of an incomprehensible complexity, “which increases the probability of the desired and decreases the probability of the undesired” (Luhmann 2016b, S.98f), anything can be marked as true through observation: “the management of differences” (Luhmann 2012, p. 63). Despite that old conflict – which we already mentioned into the introductory paragraphs of this article, between structure and genesis, patterns and differences, substances and accidentals, insides and outsiders, the possibility for truth and construction reaching from the inception of time to these great thinkers, we are now up to explore Luhmann’s path into the realm of second order observations – by this we will point to some important differences between both views, or as Wilber (2018, p. 681) puts it: each holon “can be looked at from ‘without,’ or from the ‘outside’ in an objective/universal/rational stance, or looked at from ‘within,’ or from the ‘inside’ in a subjective/local/cognitive/enacted stance” – and we attempt to do both for better comprehension.
In the succeeding section, Luhmann’s writings after 1980 can be classed at least into two stages each completing a circle of four grammatical phases above the Construct-Aware: a) where ideas are primarily concerned about the way differences and unities are created through observation and later b) how observations deal with paradox to create cognitive, subjective and constructed internal identity. In the following paragraphs we will no longer point too much to grammatical markers. We will restrict ourselves to mentioning the phase wherein the textual examples could best be put and how the conscious preoccupation, interpersonal mode and identity-formation evolve and change with the distinguishable semantics. Respectively sections are no longer translated with the same grammatical accuracy but towards optimizing the reading flow. Additionally, to locate the tier sequence from being, to essence, to notions and absolute spirit or from firstness, to secondness, to thirdness and beyond into Luhmann’s realm of second order observations within a broader reality we reference not only other thinkers seemingly from these stages but some concepts from earlier stages, too. As thorough these classifications are as thorough should be the caution when reading these assessments, as no one is free of stepping into misjudgment, e.g. for reasons of transference.

**Construct-Aware and Unitive**

**The Early 1980s: Entering Unitive**

As we have seen, the move into the integrative phase of Luhmann’s writing was signified by a loosening of the boundaries created by the subordinating mechanisms and the latency or displacement and repression mechanisms of a system out of subsystems which marked the exiting phase of the Achiever stage. The boundaries are loosening their hierarchical mode and “drawing of boundaries does not necessarily mean less communication, in general even rather an increase, as the passage is specified and thus eased up” (Luhmann 1966a, p. 85) – communication channels become clear and therefore accessible. However, this interplay of subject and object takes on different forms and is further increasing in 1970. The interaction of inside and outside there could for example mean that systems can “reach ’ultrastability’. They can stabilize internal boundaries between sub-systems in the meaning of thresholds, which restrict a transmission of effects – […] therein lies a substantial speeding up of intra-systemic adaptive processes, an important temporal gain for survival. This initially enables the emergence and maintenance of higher order systems. [...] in a more complex world” (Luhmann 2018c, p. 159f). And thus, there is a deep relationship between two sides of reality: the completely inside and the completely outside in their combination as unity. Or as Alfred North Whitehead (1978, p. 148) says “every item of the universe, [...] is a constituent in the constitution of any one actual entity” or of any particle, life-form or system of any kind. For him, too, this completion of inside and outside or rather anyone and anyone else is part of a four-phased process wherein “the creative action completes itself [in the fourth phase] [...] for the kingdom of heaven is with us today [...] [, which] is the love of God for the world” (Whitehead 1978, p. 354).

It is exactly ten years later when Luhmann starts with *Societal Structure and Semantics* both a new series of books and the next nominal or adaptative phase. Here, we still cannot see the term of observation substituting self-thematization, but a new degree of complexity when it comes to his recognition of the “others as other”, of first to second person interactions: “the differentiated states [here] are not in relation to each other, but historically in relation to the earlier state functionally equivalent. Exactly that allows the substitution in direction to functional differentiation; it is functional substitution of functionally for each other no longer substitutable states. The differentiated states then align by this that they can only jointly substitute an earlier one, on whom they themselves depend” (Luhmann 1993, p. 169f).
What we can see here is that the nominal function takes on different means: it is the switching between antonyms or the expression of two parts formulated in opposition but union, a sentence of adversaries in an instance – inclusion of others as other means therefore “[Rhema 1 Fully differentiated behavioral complexity has to be introduced into society again] [Rhema 2 stating the opposite and by this has to be made compatible with these behavioral competencies, against which they have been differentiated)” (ibid. p. 170). Or as Jacques Derrida (2007) writes, this phase deals in a paradoxical fashion with the *Inventions of the Other* “the other is indeed what is not inventible, and is therefore the only invention of the world, our invention, the invention that invents us” (Derrida 2007, p. 45). As Jean Piaget (1956, p. 246) points out “reciprocity is the fundamental relation which one finds within each totality” and here the adaptation starts with a whole new kind of it, leading to new and “more complex relationships of inclusion, interference, negation, etc.” (ibid. p. 236) that are in themselves and by their nature antonymic.

This structure thus looks like the fourth phase moved into an extreme. Additionally, it shows up on the surface of Susanne Cook-Greuter’s Unitive stage, too. Hence, being with other people can in the more accusative to dative phase mean that it “[homonymic hyponymic theme One could be next to someone and not ‘be with them’.] [homonymic synonymic rhema 2 ‘Being with’ seems more like realizing that an ‘other’ is somehow part of ‘you’,] [homonymic rhema 2 as antinomy and ‘you’ are part of ‘them’ – if only for a moment] (Cook-Greuter 2010, p. 80) and the dative to instrumental phase brings forth a feeling of feeling sorry “[Rhema 1 as antinomies for everyone and for no one –] [equation-like preceding rhema 1 all of us suffer, and much of it is self-created...] [rhema 1 antonymic part yet none of us is ever really in danger at the level of the Absolute] [rhema 1 beneficiary applicative as ablative and there is potential good that can come from whatever we are experiencing right now)” (Cook-Greuter 2011, p. 16).

Not only in these sentence completions we can see the arising of a new “I = I” in the Hegelian sense, where the subject is merely the same as the object but Luhmann, too, says “that through present communication the pasts and the futures of other persons […] can be made present. As different persons provoke each other’s actions reciprocally, the temporal horizons of simultaneous or quasi simultaneous events melt together. The temporal horizons or action events become relieved from the sequentialization through one continuity of consciousness. They, only that way, gain the form of a horizon that can be supposed as intersubjectively-common. The time becomes separable from events, on which meanings it arises, and wins the form of a (culturally interpretable) world-dimension” (Luhmann 1991, p. 257f) or as Hegel would put it: a place “where the spirit […] [as a history] becomes, too, for itself a general of the external, becomes the world spirit” (Hegel 2011, §549). But, Luhmann in this essay on *Temporalization of Complexity* still displays a large number of markers pointing towards a fourth phase of the earlier – as shown Construct-Aware – stage of his writing.

Luhmann sometimes not experiences permanently or – as Terri O’Fallon (2010, p. 19) might write: “rocks back and forth” – points towards this experience of a shared conscious world-dimension, with a presence or independence from one single, isolated experience of time. It is a sort of prophecy of a new sphere or as he puts it: “[Rhema 1 as thesis A further differentiation of events […] never ends with a new, perhaps timeless dimension of elements,] [Rhema 2 as antinomy even though one has to confess to the mystics, that the infinity of progress into the small matches the infinity of the progress into the large] [Rhema 3 as synthesis and one insofar can find eternity in each moment]” (ibid. p. 244).
This idea of touching into a new dimension of freedom can, too, show up in Construct-Aware sentence completions: a good boss for example “[rhema 1 thesis is able to unleash the potential and abilities of staff] [rhema 2 as comitative and instrumental applicative by creating a situation in which they choose willingly to live of their best, having a clear understanding of goals, roles and their unique combination,] [rhema 3 as synthesizing context pointing to something “unknown” as within a supportive, challenging and ultimately liberating environment]” (Miniard 2002, p. 72) and is typical for Hegel’s Phenomenology of Spirit, too. There, in certain moments, absolute spirit shows up, for example in a moment of forgiveness, where “[rhema 1 the word of reconciliation is the objectively existent Spirit,] [rhema 2 as comitative with antinomy which beholds the pure knowledge of itself qua universal essence, in its opposite, in the pure knowledge of itself qua absolutely self-contained and exclusive individuality —] [rhema 3 as synthesis a reciprocal recognition which is absolute Spirit]” (Hegel 1977, p. 408).

For Hegel in his, let’s name it, “late Construct-Aware writing” anything is full of meaning, both, good and evil “[rhema 1 as synthesis are purified into the unity in which there is no longer in them any existence devoid of self, any negative of consciousness,] [rhema 2 as pole one where on the contrary, duty is the unchanging identical character of its self-knowledge,] [rhema 3 as pole two and evil equally has its purpose in its being-within-itself, and its actuality in its utterance]” (ibid. p. 408) and thus synthetize each other in their mutually defining, restricting and contrary existence as a self-conscious relationship. This structure of Hegel’s philosophy of religion, where a home or place for both sides of the reality-coin exists, is analytically pointed to in Luhmann’s 1977 The function of Religion, where the grammar of the fourth phase still exists in isolation from that of a later phase and process of adaptation. There a functional definition of religion is about “trying to avoid the abstract one-sidedness of a single function-statement, which allows too much and renders not enough, to correct them and to complicate them through means of systems-theoretical analysis, in other words in order to incorporate in the theory of religion, that any social System, therefore society, too, has to solve more than one problem, hence, has to fulfill a multiplicity of functions” (Luhmann 1999, p. 84).

Another philosopher of dialectics, the French existentialist Jean Paul Sartre (2004) in his Critique of Dialectical Reason can be situated here, too, again he shows the prophetic structure, when he asks whether it is “some 'collective consciousness', a totality irreducible to its parts, [which] imposes itself externally on each and every consciousness, as the Kantian categories impose themselves on the multiplicity of sensations” (Sartre 2004, p. 391). A “collective consciousness arising from the synthetic unification” (ibid. p. 294) of a series of four, where the collective praxis leads to individuals realizing “in and through themselves the interpenetration of a multiplicity of unorganized individuals within them and that they produce every individual in them in the indistinction of a totality” (ibid. p. 253) on the basis of the two earlier forms: individuation or isolation and reciprocity. Just two years later, in the same way as Luhmann’s grammar changed, we can see Sartre’s reappropriation of the Unitive stage deep structure in his own lexis and autobiographical writing The Words where he for example writes about discovering his self as other: “[rhema Looming up out of an antediluvian world just when I was escaping from Nature and at last becoming myself,] [Antonymic rhema that Other whom I was aspiring to be in the eyes of others, I faced my Destiny and recognized it: it was only my freedom.] [Thema It had been set up before me by my own efforts] [Antonymic rhema as if it were a foreign power]” (Sartre p. 171).

Following Derrida (1981) in Dissemination where he, too, deals with the appearance of something still exterior to one’s interiority, one can say that in this fourth phase of the construct aware “discourses spring up regularly, engendered in the course of sequences that are themselves part of the quadrature [quadruplicity] of the text, belonging precisely to one of the
four faces, the one that seems to be open for the perception of the spectacle [or adaptation], for the "now" of consciousness faced with its object [or goal-orientation], for the present tense of discourse [or integration] – belonging, in a word, to the face as what one faces, a surface of envisaged presence [or self-thematization]. This face also contemplates itself as the originary, immediate, unconditioned opening of appearing but it explains itself as an apparent opening, a conditioned product, a surface effect” (Derrida 1981, p. 299) before some years later – as mentioned earlier – the paradoxical grammar in Derrida’s writing takes over this appearance he in Dissemination calls “illusion”. It now becomes part of deconstruction a process which “involves an affirmation, this latter being linked to the coming – the venire – in event, advent and invention” (Derrida 2007, p. 23), it now becomes unconditioned and beyond being just a surface some “aspect of invention, of inventive power: as if it were necessary […] to reinvent the future” (ibid. p. 23). This move from recognizing a larger mind beyond the higher mind. While in the higher mind it is still the persons “separate mental self which it makes the judge, witness and center of the universe and through it alone strives to arrive at its own higher self and reality” (Aurobindo 2005, p. 181), in this transition “the veil is rent and the divided mind overpowered, silent and passive to a supramental action that mind itself gets back to the Truth of things” (ibid. p. 181).

Further Differentiation in the Unitive REALMS

Now, we have shortly expressed the move from synthesis of mutuality and two sides of reality and how the early Unitive phase shows an antonymic structure in its absolute. However, towards the fourth phase of the first Unitive cycle and Luhmannian life-stage two things happen: a) first, the antonymic structure gets framed as paradox, a word that increases in number, importance and scope of meaning from the 1984 Social Systems towards the books about economy, politics, moral, religion, education and other subsystems of society where paradox is mentioned more than a hundred times within each book and b) the typical triadic structure which was present in all of the four earlier stages from Achiever, to Pluralist and Autonomous towards Construct-Aware moves into a quadruplicate form or a more symmetric style of writing that reminds of that which is present in concrete operational writings like in this passage from the Hymns of Homer: “[RHEMA 1 part one And so long as she, the goddess, yet beheld earth and starry heaven and the strong-flowing sea where fishes shoal, and the rays of the sun,] [RHEMA 1 part two and still hoped to see her dear mother and the tribes of the eternal gods,] [RHEMA 2 part one So long hope calmed her great heart for all her trouble] [RHEMA 2 part two and the heights of the mountains and the depths of the sea rang with her immortal voice]” (Hymns II, 33-39).

This parallel structure can be apprehended in the 1986 Ecological Communication. Here the first cycle of observation is completed and Luhmann, in defense and in an attempt to sustain the system of ecological communication, writes “[RHEMA 1 part one overall it is obvious that with the scientific inquiry the respect regarding ‘natural equilibria’ has grown,] [RHEMA 1 part two be it within ecological interrelationships, be it within different countries and today even in developing countries,] [Antonymic part of RHEMA 1 part one that however, at the same time the own society is exposed to the most enormous critique] [Antonymic RHEMA 1 part two and exaggerated with calls for intervention, as if it were no longer a system)” (Luhmann 1990, p. 20). This sentence is both a) a more extreme formulation of the first phase variation of antonymic construction and b) including much of instrumental and locative modifications and contrasts of a fourth phase and contains this in the quadruplicity of this nominal and homonymic antonymic superstructure. This kind of structure – including four meaning carrying clauses not just reformulations or explications – is something one can, too, see in some of the Unitive sentence completions where this fourfold dissection can take on form as in I am “[RHEMA 1 someone and everyone,] [RHEMA part two special and ordinary,] [RHEMA 2 part one one tiny part of fast cosmic system] [RHEMA 2 anto-
nymic part two who has the potential to make a difference]” (Cook-Greuter 2010, p. 82) including two rhema in a, nominative to accusative phrase similar to what we have seen in Achiever sentence completions and which might show up here more in direction of a dative-like phase e.g. a good boss “[rhema 1 of goal orientation is someone who knows how to balance authority and freedom,] [rhema 1 part two who is able to embody and/or give voice to the deeper mission of the organization.] [rhema 2 part one of adaptation While seeing it in the context of society.] [rhema 2 part two and can do this in service of a deeper Reality]” (Miniard 2002, p. 75). It even can show up with one rhema like in a good boss “[rhema 1 part one can be a 'boss'] [rhema 1 part two if he needs to,] [rhema 1 part three or a coach, leader, shaman,] [rhema 1 part four antinomy or disappear]” (Miniard 2002, p. 74).

So, now, as we have looked at the seemingly new superstructure, lets come to the paradox: Luhmann in 1984 formulates one of the paradoxes, a paradox that says that a system can only comprehend its rationality from understanding its subsystems and which “we attribute to the pure form of self-referentiality, and we therefore see the rationality as re-entry of the difference into the different, as installation of an open system/environment-difference into the system that identifies itself through this difference” (Luhmann 2012, p. 641). The paradoxes here are concerned to move the system and its self-referentiality from anti-passive and being a receiver in an involuntary sense of a voluntary, integrated beneficiary towards agent-oriented-intransivity to create a “system which disposes over its environment, [as it then] basically disposes over itself” (ibid. p. 641).

This idea moves into observations of observations about the possibility of dissolving antinomy or the so-called paradoxes. Again, this is, similar to the first Unitive phase, a special and emergent kind of dealing with subject and object. It now generates and is characterized in The Economy of Society through the “possibility for observing observers. As the observational context varies from observation to observation, one can only comprehend such a system as polycontextural system; and our thesis is, that the system for this has to take on the form of an environment for participants, of an environment, which does not variate randomly, but is neither a simple function of purpose-oriented behavior” (Luhmann 2019b, p. 98). Luhmann manages this switch after an intermediate fourth phase. However, in this intermediate phase one first has in fact “to reverse into its opposite the general perception that first a ‘subject’ has to make an aware decision for communication and then it can act communicatively. First if out of reasons [from systems], which cannot be ascribed to a consciousness, ecological communication can get under way and start to co-determine societal communication, one can expect that the topics of this communications gradually become contents within consciousness” (Luhmann 1990, p. 65). This switch, where the “inside” or “goal-orientation” of systems determines their environment as conscious subjects and thus themselves, generates a surrounding or environment which is no longer co-subordinate but strictly subordinate, in the sense, that one can achieve new orders of complexity through shifting the boundary and redefining something not as system but an environment – the whole earlier problem ends in smoke as mental and thus communicative or discoursive boundaries become acts of a second order observer, observing its needs. This finally enables to resolve paradoxes through “imposing a difference of level or a hierarchy” (ibid. 2019b, p. 99). Therefore, for example the paradox of scarcity – “that each access to scarce resources, which serves the reduction of scarcity, increases scarcity. Increasing supply of one is larger hardship for others, and only because it is that way, the social problem of scarcity exists” (ibid. 2019b, p. 98) – can be resolved through different options, e.g. if society “establishes indifference to the misfortune of others, that is, to grant the full differentiation of the economic system” (ibid. p. 99) or through making the paradox invisible relocating it to “the invisible hand” (ibid. p. 99).
Differently said, Luhmann points out the interplay of two antinomies creating a certain state and looks how this paradox shifts from level to level through creating different observations and scripts within the environment – or as he in the third and dative state of this phase formulates “each paradox is only paradoxical for an observer who has already systematized his observations. […] And a path laid down on behalf of resolving can be described as the re-entry of the form into the form or of the distinguished into the distinct. As the form within the form is at the same time not the form, it is a paradox but likewise an unfolded paradox; as one now can choose distinctions, whose re-entry can be interpreted. An observer has the double-option to describe a system both from the inside and the outside, hence to choose both an internal and an external point of view. It is self-evident that he cannot do both simultaneously as he therefore has to use the inside/outside distinction” (Luhmann 2018a, p. 179f). Hence, we are here in a new period of system and environment differences, though anything that happens is within the oneness or unity of within the system creating distinctions and differences by and upon itself.

Luhmann in this phase does approximately match up with Ken Wilber’s (2000) *Sex, Ecology and Spirituality* however Luhmann’s four quadrants are as mentioned the temporal evolution, the factual differentiation and the social communication connected through the autopoiesis of society, the self-thematization and self-description of itself as “different entering gates for the depiction of the total painting” (Luhmann 2018b, p. 1138) of a theory of society. But while for Wilber the fifth dimension added with the new tier or the basic operation is: “No objects, no subjects, only this. No entering this state, no leaving it; it is absolutely and eternally and always already the case: the simple feeling of being, the basic and simple immediacy of any and all states, prior to the four quadrants, prior to the split between inside and outside, prior to seer and seen, prior to the rise of worlds, ever-present as pure Presence, the simple feeling of being: empty awareness as the opening or clearing in which all worlds arise, ceaselessly: I-I is the box the universe comes in” (Wilber 2000, p. 318), Luhmann introduces in his Unitive writing the difference of medium and form. Both, however are no real existents or reals, like the timeless witness, but artificial distinctions in which “the system operates in a way that it binds its own medium towards its form, without dissipating the medium by this, as much as light is cannot be wasted through seeing. […] Ultimately one here needs to observe that it is not the medial substratum, rather the form which is operatively compatible in the system. […] One does not see the light, but the objects, and when one sees light, then on the surface of objects. One does not hear the air but sounds; and the air itself has to make a sound if it wants to be heard” (Luhmann 2018a, p. 194ff). And the basic medium generating self-descriptions and observations is communication “which makes the unlikely nevertheless likely: the autopoiesis of the communicative system of society” (ibid. p. 197). However, for Luhmann many media exist, but these of society all are grounded on speech, language and communication – the opening or clearing in which all words arise – and which later artificially differentiate between this oneness where media can become form like “light that becomes allowed in cathedrals, becomes form, to play with the pillars and arches. The physical structure of the world has to enable this, but the differentiation between media and form is a personal contribution of the observing organism” (ibid. p. 197).

This again reminds us of the *Formal Organization* where Luhmann reduces the social function of his systems-theory to the “generalization of behavioral expectations, which express themselves in the possibility of implying a consent regarding the formal expectations with all members regardless of their individual, different preferences” (Luhmann 1964, p. 68) – but now there are no longer shared opinions, one subordinates, but both inside and outside, and the four dimensions of society arise all through the surface of media.
From Second to Fourth Phases

Whereas in the movement of the third and fourth quarter the social dimension of second order observations increases, in the first quarter new and more paradoxes arise. The resolution of the paradox of scarcity disembogues therefore again in a more elaborate version of the 1984 paradox of self-reference and differentiation within this self-reference: “The system as unity and the system as difference, namely as difference of an each time participating system and its system-internal environment” (ibid. p. 101). Respectively, this differentiation between two levels of a system, as difference and unity, was not given in 1984, when Luhmann finished his Social Systems: there it is only the difference “which virtually holds together the different; it is different, and not indifferent. Thus far, as differentiation is brought onto a uniform principle, one can read the unity of a system from its differentiation. The system gains systematicity through differentiation, it gains additionally to its pure identity (in difference to others) a double-container of its unity (in difference to itself)” (Luhmann 2012, p. 38).

In the same sense as there does not exist a second order observer in 1984, the writing is more about the way this difference creates unities – not the possibility of shifting between two sides – of “both… and” like inside and outside, system and environment, process and structure, elements and relations, order and chaos and so forth reminding of verse 2 of the Dao de Ching where it is said that “if man know the beauty, they, too, understand what is ugly. If they learn what is good, they, too, realize what is evil. In this way being and not-being, heavy and light, long and short, high and deep, allow to know each other”. However, we have to point to the slight difference, or as Luhmann in 1984 would say: “One has to notice the dialectics” – “One approaches dialectics, when one in light of the synchronization of self-reference and other-reference is interested in the underlying unity. Hence, ultimately turns towards the unity of unity and difference and not towards the difference of identity and difference” (Luhmann 2012, p. 607). As we have already shown: the Unitive stages have four operations in their repertoire instead of three as the earlier stages – as we will point out in 4.6 Alternative Tier-Structure – from Expert to Construct-Aware and hence the old notion of the Buddha, which says “between perception and action lies interpretation” has to be reformulated in a certain sense into: beyond the oneness of perception and action through interpretation lies awareness of interpretation, or the absolute idea and spirit. Figure 5 depicts this difference between the two tiers.

One can show this within Ervin Laszlo’s (2002) Systems View of the World, where not paradoxes are unfolded but the quadruplicate structure always consists out of 1) awareness of 2)
something that could be classified as interpretation 3) something that could be classified as essence and finally 4) something that relates to being. For example, when he writes about the systems-view of oneself he differentiates three layer of sub-organic, organic and supra-organic which are “rather ‘levels’ rather than ‘categories’ of reality, distinguished in reference to modes of organization rather than to essence or substance” (Laszlo 2002, p. 27) which are reiterated and explored either in sentences or in paragraphs: “[Supra-organic the human being is a module] [organic in the multilevel structure that arose on earth as a result of] [Sub-Organic part 1 as awareness of pole one Nature’s penchant for building up in one place] [Sub-Organic part 2 as awareness of antonymic pole two what it takes down in another]” (Laszlo 2002, p. 60).

However, as one might think of Teilhard de Chardin and others, these three layers exist earlier, too, but what is different is there is no simultaneous view from within all three of these levels plus awareness but one broad view projected onto them – onto merely one at a time as syntheses of the sentence, as the interpretation between action and perception: for example when de Chardin writes that “really, love—that is to say, the affinity of being with being—is not peculiar to man. [Theme as Synthesis It is a general property of all life] [Rhema part 1 as Action and as such it embraces, in its varieties and degrees.] [Rhema part 2 as Perception/Adaptation as all the forms successively adopted by organized matter” (de Chardin, p. 264). Not only is there intense anthropocentrism in the notion that “by rights, to be certain of its presence in ourselves, we should assume its presence, at least in an inchoate form, in everything that is” (ibid. p. 264) but, too, lacks the “unfoldment of paradox” that is there in more structuralist writers, too, even if backgrounded and in a more classifying manner of sorting into categories of levels. Therefore, for Laszlo “the fact that physical entities such as atoms provide communication between their parts in terms of the interaction of field or force potentials, that things such as organisms provide parts communication by physicochemical means, and that multi-person organizations stablish communication of quite another kind, does not invalidate their wholistic character” (Laszlo 2002, p. 29). Here communication as partiality and wholeness are unfolded into one communication based on separation “constituces an integrated unity of all these in mutual relation” (ibid. p. 28). And the many forms communication can take here are nothing “but in all it forms what remains communication” (ibid. p. 29), sorted into a fourth category or structure of awareness.

One can see this in Wilber’s (2000) Sex, Ecology, Spirituality, too, anything is “nothing but within a quadrant” and each quadrant is in itself a triplicity of levels, as we can see here for the Upper Left – the interior Quadrant of the Individual: “[Fourth as Awareness When it comes to the developed forms of depth in humans.] [Third as Interpretation I only have access to that depth via interpreting] [Second as Action what you tell me] [First as foundation for perception in a dialogue]” (Wilber 2000, p. 141). Understanding self and other becomes a fourfold process as Wilber shows in this illustration: “[Rhema 1 And thus, I have to reread the text of my own feelings], [Rhema 2 locate the source of my insincerity], [Rhema 3 and reinterpret my own depth more faithfully], [Rhema 4 as providing Awareness with the help, usually, of somebody who has seen the mistranslation before and can help interpret me to myself.] The issues are meaning, interpretation, and sincerity (or its lack)” (ibid. p. 142).

This shows up in Unitive sentence completions, too, e.g. in “I feel sorry… [Expressing awareness for many things, and grateful also.] [Interpretation Layer: Expressing interpretative Ambiguity as these same things have often pulled me beyond the "small self" need to apologize] [Being Layer: Expressing Perception towards recognition of] [Essence Layer: Expressing ground for Action much greater ground for learning and living]” (Cook-Greuter 2011, p. 17) versus the completions with two poles depicted earlier.
Especially, when Luhmann looks at the social system in this phase, he describes it as a receiver, as said, a beneficiary in receipt of its constituting elements, words, which turn into communication, and come from conscious systems or humans: “With the distinction of system and environment it is gained the possibility to understand the human as part of the societal environment at the same time as more complex and unbound, as it were possible if he had to be construed as part of society; because environment is, in comparison to the system, precisely that area of the distinction which displays higher complexity and less being-structured” (Luhmann 2012, p. 289). However, this also means – before moving into the fourth phase as described above – to turn the point of view and see humans as those who benefit from society and society as some sort of external possessor or dativus judicantis, judging the utility of humans for the viability of systems, and so, humans “can only develop their complexity in regard to the social system and are at the same time used by the social system […] to extract actions from them, which are supportive of the requirements of social combinatorics” (ibid. p. 293). However, as we have seen in the third period of Achiever and within the Autonomous writing, there is a great amount of “depending on” and “according to” thinking – the animate environment thus is possessed but only “with different selectivity and different compatibility and different backgrounds and futures” (ibid. p. 293).

Luhmann here in 1984 answered a question he asked in 1981: “How is social order possible on the basis of plural subjectivity of synthetizing performances” (Luhmann 1993, p. 253).

A question that has been slightly differently stated by one of the founding fathers of German sociology, namely Georg Simmel (2018), who beautifully answered it in a third phase unfolding of paradox between a transcendent and an immanent of a second order observer: “Societies are buildings out of beings which can stand on both sides inside and outside of it […] by which society creates maybe the most conscious, at least the most general expression of an archetypical form of life: that the individual soul can never stand within a relationship, on whose outside it stands at the same time, that it is never put into an order, whose outside it is, too. […] The religious man feels completely embraced by the divine being, as if it were just a pulsation of the life divine, its own substance is unreservedly, even in mystical undifferentiated-ness given into the absolute. However, to give this being-molten-into any meaning after all, it has somehow to sustain its separateness […] The oneness is in its meaning dependent on the other-ness of god” (Simmel 2018, p. 53).

However, for Luhmann humans are not that important in answering the question of how society is possible in 1984. Speech is one constituting moment humans add and by which they are integrated with the social system, while the social system is reciprocating with them, but central are the ideas of observation and autopoiesis, or to apply “the terminology of observation and self-observation on the level of a general systems-theory, and […] combine it with the idea of autopoiesis, self-observation becomes a necessary component of autopoietic reproduction” (Luhmann 2012, p. 64).

This mode of observation and autopoiesis slowly starts to grow into place in the 1980s. In his book Political Theory and the Welfare-State Luhmann (2011, p. 51) says that “self-observation would have to include the observing systems and lead them to self-reflection”. However, here this mode is rather “the continuation and augmentation of generalizing judgment” (ibid. p. 52), which is in Luhmann’s last book within this seeming stage recognized as an “observer that recognizes that its object is a self-referential system, and recognizes with this additionally that this object is constituted tautologically and paradoxically, and in so far randomly and without the possibility to operate, which means it cannot be observed. […] It
recognizes its own paradox: the arbitrariness and impossibility of an observation” (Luhmann 1990, p. 55).

However, earlier in the 1980s exactly this arbitrariness first allows to see system and environment as “relationship between interdependencies” (Luhmann 2011, p. 53) and then in the difference of system and environment which creates, through shifting of boundaries, “the evolutionary surplus of the achievement of ‘meaning’ on the basis of an no longer stoppable self-referentiality of systems-constitution: a meaning that lies within an unprecedented combination of closedness and openness towards the environment of systems-structure” (Luhmann 2012, p. 64).

Luhmann in 1984 basically talks about time, i.e. autopoiesis as self-constitution and self-reference in differentiation that sustains systems as long as they don’t lose “their determinability, hence their compatibility for further operations” (ibid. p. 59) and meaning is created by an observer through creating differences “as a surplus of references towards other possibilities” (ibid. p. 95) and therefore he primarily depicts a temporal movement. Contrary meaning in 1975 is based on reflections on time – evolution – but not anything is contained within time. Rather meaning is, when he back then touches from the accusative into the third and dative phase, where “the simultaneous presence of each actuality and horizon imparts meaning to the given, more functionally expressed: concrete access to and localization within other possibilities. Whatever ‘underlies’ meaning: meaning covers anything that is pregiven to it, with appresentated references, which radically transform the actuality and leaves nothing meaningless. The permanent fabrication of this ‘co-presence’ within the daily lives, […] enables and enforces likewise foremost effective procedures of selection – namely those, which co-present and keep present for further operations the ‘wherefrom’ or ‘from whom’ of selectivity” (Luhmann 2017a, p. 633). Differently put it is dependent on a place wherein and not only pre-given, but additionally not aware of being a process coordinated by an observer, but rather based on the experience of reality and the experience of boundaries which allow “to thematize across borders the environment after the system or vice versa: the system after the environment” (ibid. p. 638). Here in 1975 Luhmann again reminds strongly of Whitehead, who writes in an almost perfectly matching grammatical phase, that “the subjective form originates, and carries into the feeling[, into presence,] its own history transformed into the way in which the feeling feels. The way in which the feeling feels expresses how the feeling came into being. It expresses the purpose which urged it forward, and the obstacles which it encountered, and the indeterminations which were dissolved by the originative decisions of the subject” (Whitehead 1978, p. 232).

What we have already pointed to, using Process and Reality, is the synthesis of opposites “in the final unity of one actual entity [which] is another fact of ’givenness.’ The actual entity terminates its becoming in one complex feeling involving a completely determinate bond with every item in the universe, the bond being either a positive or a negative prehension” (Whitehead 1978, p. 44). And in the same way Luhmann can in this Construct-Aware stage – as he further grows into the third phase – comprehend, as two sides of a coin, that “contrary to appearance, binary schematizations don’t serve the division rather the conjunction of opposites. They ease-up the transition of one definition of a situation towards its opposite, by demanding nothing more than a negation, whose admission is regulated in the system – a technique of paradoxical integration” (Luhmann 2013, p. 41). This is a first glimmer or the substratum and contained object of what dawns to him in his book about Social Systems, namely as differences created by an observer – differences that are both something that makes a difference and autopoietic structures and processes of system and environment, which co-evolve in mutuality, producing differences in a way they become or are perceived as a unity.
Contrary to this recognition of the “both… and…” structure within the third phase of Construct-Aware or the self-thematizing stage, the second phase deals much with modes of thinking as did the second phase of the integrative period in Luhmann’s writing in the mid-1960s. However, while the pluralist mode was directed towards e.g. “information processing through communicative action as it is the precondition of all higher forms, to apprehend and react adequately to all complex environmental interdependencies” (Luhmann 1966b, p. 69), and thus there was only one point of view, that of a third which nevertheless apprehended other in a way that could lead to a functional fit, the self-thematizing Luhmann looks at both sides simultaneously – at system and environment – and how they could as one whole, or one communicative intersubjectivity stabilize certain self-narrations and thus self-maintenances. One can see this for example in the 1972 Political Planning where Luhmann writes that “meaningful behavior in systems of communication of public opinion requires the reduction of high complexity, requires especially an overcoming of the barrier of experiencing-and-being-able-to-act-differently-too of others and thus becomes demanding and difficult, as therefore the recruitment into the system itself – and that always means, too: more or less imperceptible socialization within the system – has to be requested” (Luhmann 2007, p. 26). One can see these thoughts, too, in Pierre Bourdieu’s (2016) Distinction, if slightly differently oriented, but “the contentions for the acquisition of cultural goods at the same time represent symbolical contentions for theses distinctive features […] [wherein] the value of culture constitutes itself or, which is in the end the self, as the belief of the value of a culture, the interest in and what is interesting about culture” (Bourdieu 2016, p. 388f). As Luhmann puts it “the full differentiation of sub-systems should not mean that the causal or communicative interplay of these sub-systems with their respective societal environment are cancelled or are comparatively minimized […] [but] based on the recognition and minding of the rules on whose basis communication creates selective accomplishments and helps to allocate, as part of a system, through the kind and the direction of a selection” (Luhmann 2007, p. 27). And these selective mechanisms are reflected by Bourdieu (2016, p. 389) – the “basis of this dynamic of the field, wherein the cultural goods are produced, reproduced and create profit of distinctions through their circulation, which are the strategies that especially through their reciprocal competitiveness lead to these objective outcomes, contribute to the scarcity and the belief into the value of these goods” and regulate the affiliation to a social class, which is a system.

Completely contrary to regulating the integration into system Wilber (1996) writes in the Atman Project using a similar grammatical overlay of the Construct-Aware stage how transcendence works through dissolution of boundaries, because „the subject can find the prior Whole only by letting go of the boundary between subject and object—that is, by dying to the exclusive subject. And the subject, obviously, is terrified of this. And because he can’t or won’t let go of and die to his separate self, he cannot find true and real transcendence, he cannot find that larger fulfillment as the Whole. Holding on to himself, his subjectivity, he shuts out Atman; grasping only his own ego, he denies the rest of the All” (Wilber 1996, p. 119) – it is basically the condemnation of the earlier depicted Construct-Aware view the more Aristotelian thinker generate, where there still exists a “real” or “projected” inside and outside, which are in relationship and where boundaries are regulated before at the next stage one embraces a “both… and… and the relationship of both sides to each other”. So, where for Luhmann the line stays important up into the Unitive realm within his Theory of Social Systems for the neoplatonic Wilber “to erect a self-boundary or barrier and hold a separate-identity feeling against the prior Wholeness, not only involves illusion, it requires a constant expenditure of energy, a perpetual contracting or restricting activity” (ibid. p. 119) at the Construct-Aware level.
This view matures from his *No Boundary* in the more nominative phase, where the drawing of a line can be shifted in radical ways and where “the most radical re-mapping or shifting of the boundary line occurs in experiences of the supreme identity, for here the person expands her self-identity boundary to include the entire universe. We might even say that she loses the boundary line altogether, for when she is identified with the ‘one harmonious whole’ there is no longer any outside or inside, and so nowhere to draw the line” (Wilber 2001, p. 5).

While Wilber here says “what you are actually doing, whether you know it or not, is drawing a mental line or boundary across the whole field of your experience, and everything on the inside of that boundary you are feeling or calling your ‘self’” (ibid. p. 4), and negates the very act of creating boundaries as contrary to the ultimate, he, in a 1984 essay on the *Spectrum of Psychotherapy* writes in respect to human maturation: “Healthy or normal negation serves several important functions. Horizontally, it helps differentiate self and object representations; vertically, it helps the disidentification, differentiation, separation, or transcendence of a lower level in favor of a higher” (Wilber 1984, p. 86). One can see this tendency of outside views to be concerned about this negation in Hegel (1977, p. 12f), too, where he writes that “it is the coming-to-be of itself, the circle that presupposes its end as its goal and has its end for its beginning, and which is actual only through this accomplishment and its end”.

For Wilber (1996, p. 194) in *The Atman Project* unity is the sole purpose of man and “in place of unity consciousness, the individual, on the one side, takes as substitute self an inward-subjective world, and, on the other, he creates ‘a world-out-there’ as substitute object, and he places this substitute self squarely in the middle of this substitute world”. In Wilber’s writing man creates “symbolic substitutes for lost Unity” (ibid. p. 194) when creating boundaries, and thus compensates the lack within not having achieved the ultimate neo-platonic purpose: reaching the absolute good. However, this is a process depicted as one of creating boundaries where one “must accept the ‘death,’ negation, or release of the lower level” (Wilber 1984, p. 84f). One must “dis-identify with or detach from an exclusive involvement […] to ascend to the greater unity” (ibid. p. 85).

For Luhmann however, one moves forward with boundaries all the way – they are vital and inevitable since they can create meaning: they force through “time, to think the relation of the exterior world and the interior world asymmetrically as an incline of complexity. And only this way, by assuming a more complex exterior than interior and corresponding unities impregnated with a difference between actual and possible, one can acquire a taste of meaningful complexity from the world, the operation wherein the operations by which systems of meaning, like humans, operate can find their place” (Luhmann 2012, p. 113). At least, so Luhmann (2012, p. 113) contemptuous, if one is not willing “to immediately re-specify within the ontological-metaphysical tradition purpose onto one preferred and meaningful” – like the idea of the good – as Wilber does.

In *Grace and Grit* Wilber (1991, p. 21) still holds on this truth of an ultimate, though now in the Unitive realm, when he writes that his former wife and love “and I believed in God as one’s own deepest Ground and Goal […]. And by ‘God’ I do not mean an anthropomorphic father figure (or mother figure), but rather a pure awareness, or consciousness as such, that is what there is and all there is, a consciousness that one cultivates in meditation and actualizes in life”. Wilber here uses a “but rather” as demarking a negation that the is unfolded over three tiers. Sri Aurobindo (2003) in one of his earlier works, the comments on the *Isha Upanishad* applies the same pattern when he defines the ultimate in saying that “that which dwells in the body of things is God, Self and Spirit; the Spirit is not the subject of its material, but the master; the soul in the body or in Nature is not the prisoner of its dwelling-place, but has
molded the body and its dharmas, fixed Nature and its processes and can remold, manipulate and arrange them according to its power and pleasure” (Aurobindo 2003, p. 431). The recognition of no-boundary and negation here became the definition through negation or categorizing – a unity of being and nothingness. Contrary to handling that negation-categorization Luhmann in the grammatically matching period of his life writes, that for “the accomplishment in theories, that are possible in a semantic space [that can create something like personalization], are founded on a combination of strategies for totalization with strategies of decomposition and evaluation. The play of concepts generates with these boundary conditions its own limitations and non-arbitrariness” (Luhmann 1993, pp. 251f), and thus what a person can be as a comprehensive system and totality, if it wants to be a “wholeness and a sum of detail which can still be grasped by theory” (ibid. p. 251) – he thus reflects from the inside that each wholeness is a mere choice of moving the boundaries of perception while it seemingly can be experienced as an ultimate truth from the outside; there is a somewhat significant stage lag in what is reflected on depending on the identification with inside-Aristotelianism or outside-Platonism.

In Luhmann’s last creative decade, the 1990s, his autological period of observing the mechanisms of observing observers or second order observations, he no longer looks at these reflections on top of the integrative stage and thus the maintenance of systems through integrative self-thematization, but it is the problem of different second order observations that engages his writing. So, he writes in one of his essays in *The Morals of Society* about two modes of second-order observing and the way they are visible “in the cultural invention of normativity can be described as reduplication of reality – similar as one can distinguish between play and seriousness or after the evolution of language between language signs and what they signify” (Luhmann 2015, p. 233). And the foundation for resolving problems of second order conflicts can change in history and can create new problems and paradoxes – as depicted above for the paradox of scarcity. So, in distinction “of a society that assumes a religious foundation of world, we, the now-a-days, can no longer […] summarize these duplications in a transcendental principle” (ibid. 232). The problem for Luhmann back then is that “observation uses its own distinctions as blind-spot. It can only see what it can see with this distinction. [...] Any observing, even the observing of observations, proceeds naïvely on this operational basis; or again in other words: that it proceeds uncritically in relation to its own reference” (Luhmann 1992, p. 85).

As we have already seen above, this turns more and more into a “both…and” of self-reference and other-reference, of seeing oneself from differences and unities that create an inside or an outside and different directionality, both within systems and their conscious environment of humans, of observation that can “incorporate self-transcending moments” (Luhmann 2018b, p. 1141) – an immanence recognizing its transcendence within the other or as Georg Simmel might put it: the recognition of the existence of the totality of others in our own being where “both [self-reference and reference through others] are only methodologically assuming a separate existence [...] [but] are in an inevitable cycle [...] [as] life can only be understood through life, and for this stratifies itself into layers [and others], each mediating the understanding of the other; layers which in their co-dependency proclaim unity” (Simmel 2017, pp. 177f). But for Luhmann the medium becomes metaphorically spoken “the holy spirit of the system” (Luhmann 2002b, p. 286) and the re-entry becomes supplemented and substituted through a mirror metaphor “a self-generated mock […], in whom the communication mirrors itself” (ibid. p. 286). A direction we can, too, see in Sri Aurobindo’s Essays in the Arya Journal however from the opposite side – the solution is not part of a re-entry of the form into form, of difference into difference but a) first “the redemption comes by the recovery of the universal in the individual and of the spiritual term in the physical consciousness.
For then only can the purpose of its descent into material consciousness be accomplished, when the knowledge of good and evil, joy and suffering, life and death has been accomplished through the recovery by the human soul of a higher knowledge which reconciles and identifies these opposites in the universal and transforms their division into the image of the divine Unity” (Aurobindo 1915, p. 385f), in The Ego and the Dualities from 1915, – operations which are done by Luhmann’s autological processes of second order observation – and b) second the medium that mirrors back the system into the system as “Sachchidananda [...] by laying hold on this secret delight which is at once the secret total delight of its own being and the original all-encompassing, all-informing and all-upholding delight of the transcendent and immanent” (Aurobindo 2016, p. 643), when he writes about the Double Soul in Man one year later. Too, Luhmann in his latest writings that span several phases, as he wrote, rewrote and expanded on them during a seven-year periods, using religious terminology made clear that the unfolding of paradox and the mirrorlike nature of media “make the difference of the transcendent and the immanent thinkable and speakable” (Luhmann 2002a, p. 77) and can reach so far that “with or without god, the possibility for a communication of the unity of transcendence and immanence, a communication that therefore confirms that it can find itself in anything that happens, becomes imaginable” (ibid. p. 111).

Final Contemplations

Projections into Luhmann’s Future

In his essay on Knowledge and Construction Luhmann in 1988 points out a hierarchy of instrumental that lead to different orders of self-reference: “the differentiation of systems-reference of the first order observer from the systems-reference of the second-order observer that have to be made by a third order observer” (Luhmann 1988, p. 23). However, in 1997 Luhmann mentions that third order observations “basically are not distinct from a position of second order observing. It is not only a matter of a chain-phenomenon, not only a matter of A observing how B observers C, [...] rather a reflection on the conditions of the possibility of a second order observation and its consequences for what than can still be common world or descriptions enabling society” (Luhmann 2018b, p. 1117). Second order observations become autological in Luhmann’s words: the second order observer has to take another observer and has “to locate himself on the inside or outside of a form he observers” (ibid. p. 1118) and by this can in describing his own mechanisms of description create an observation that is located within society, as contingent and not as something existent, as it where for a first order observer thematizing its own life-world. Luhmann describes a re-entry of evolution in itself, of the first distinctions as variation, selection and selective retention into themselves – an evolution that involutes.

Luhmann therefore spoke in the tradition of accidentalism – the inside view – about “the first distinction, [...] [which] in the traditional context is relinquished to religion and its theology” (Luhmann 2002b, p. 325). This, when we look at Arthur Lovejoy’s roots of The Great Chain of Being in the Greek culture is, contrary to “the Idea of the Good [that] was the God of Plato, this Unmoved Perfection [that] is for Aristotle the cause of all motion” (Lovejoy, pp. 42 & 55). The struggle for identity expressed in Luhmann’s latest writings as both a) a history of unfolded paradoxes which “not incidentally” (Luhmann 2002b, p. 323) supersed and subordinate each other but in a logical form connected to the evolution of society, which try and fail to succeed in their “communication of the unity of the system within the system” (ibid. p. 319) and b) the “very special distinction, that of [...] system and societal system, and about the special problem of an inclusion of [...] systems within that which is for them on the one
hand located within the inside and on the other hand happens on the outside, namely communication. A difficulty which is not grounded within epistemology or logical impossibility, rather therein, that one has to distinguish and keep in sight two system-references, namely system and society” (Luhmann 2000, p384).

This is a slight reverberation of Ken Wilber’s conflict between two sides of reality in Sex, Spirituality, Ecology; namely that of ascenders and descenders which Wilber (2000), too, resolves himself by unfolding a paradox, but on the more Platonic side, making evolution subordinate of involution and so he states that “there we stand now, at rationality, poised on the edge of trans-rational perception, a scientia visionis that is bringing here and there, but ever and ever more clearly, to all sorts of people in all sorts of places, powerful glimmers of a true Descent of the all-pervading World Soul” (Wilber 2000, p. 551). He looked at it from the other side: the re-entry and unfolded paradox of involution entering itself as evolution, of holons entering their own pregiven holonic structure.

Why is that similarity of importance for our endeavor? Because it allows us to project Luhmann’s future. In the last sentences Luhmann wrote before his death in 1998 – in the Religion of Society and Organization and Decision, one might see again a return to a nominal structure. But basically the conflict of systems as necessarily two sides of a distinction leads to the question whether “as system needs a ‘self’, and whether it is already sufficient to shift from one difference to the next […] [and] shift from one language into the next, to try out, what would be observed then” (Luhmann 2000, p. 442f) and the recognition of the pointlessness of being on one side as it creates both “what it confirms, however, too, what creates the difficulties […] [and] that the reflexiveness of self-description sabotages exactly that distinction, which is presumed (Luhmann 2002a, p. 354f).

When Wilber in his Integral Spirituality introduces the eight zones, he resolves his conflict of ascend and descend with an idea that he in a nominal grammar calls “simple enough. Start with any phenomenon in any of the quadrants—for example, the experience of an ‘I’ in the UL quadrant. That “I” can be looked at from the inside or the outside. I can experience my own ‘I’ from the inside, in this moment, as the felt experience of being a subject of my present experience, a first person having a first-person experience. If I do so, the results include such things as introspection, meditation, phenomenology, contemplation, and so on. But I can also approach this ‘I’ from the outside, in a stance of an objective or ‘scientific’ observer. I can do so in my own awareness, and I can also attempt to do this with other ‘I’s’ as well, attempting to be scientific in my study of how people experience their ‘I’” (Wilber 2006, p. 35f) It is a simple “both… and” perspective “since including both of them results in a much more balanced and inclusive approach” (ibid. p. 18).

So, Wilber, managed to combine ascenders and descenders into one point of view, in one map of reality as one territory, while he earlier struggled and subordinated the Aristotelian view to his version of a Neo-Platonism, “the coming of the Over-Soul that is the World Soul, touching each and all with its Goodness and its Glory, baptizing each with its Brilliance and its Blessing” (Wilber 2000, p. 521). By the way, it is the same subordinationistic solution that Aurobindo used 75 years earlier in his essay on the Graduations of the Supermind. Namely, that “the greater spirit above the mind appears at first as a presence, a light, a power, a source, an infinite, but all that is knowable to us in it is at first an infinite identity of being, consciousness, power of consciousness, Ananda. The rest comes from it, but takes no determinate shape of thought, will or feeling above us, but only in the intuitive mind and on its level. […] [The descend] of a greater action of knowledge and will and spiritual feeling [that] manifests
and seems to organize itself above the mind and this we recognize as the true supermind and the real native play of the infinite knowledge, will and Ananda” (Aurobindo 1920, p. 2).

So, if Luhmann had manifested this next step he would have probably managed to see both: inside and outside, self-reference and other-reference, consciousness and observing, self-thematizing systems as the differences of a new, integrative third, where, using Aurobindo’s description of the overmined – the stage which did not exist in Aurobindo’s accusative stage, but was added later as intermediate step to the supermind –, “in place of an uncentred and unplaced diffusion there may be the sense of the universe in oneself or as oneself: but there too this self is not the ego; it is an extension of a free and pure essential self-consciousness or it is an identification with the All, – the extension or the identification constituting a cosmic being, a universal individual. In one state of the cosmic consciousness there is an individual included in the cosmos but identifying himself with all in it, with the things and beings, with the thought and sense, the joy and grief of others; in another state there is an inclusion of beings in oneself and a reality of their life as part of one’s own being” (Aurobindo 2005, p. 986).

**Alternative Tier-Structure**

According to Ludwig von Bertalanffy (1964, p. 48) in his *General System Theory* says, that "a unitary conception of the world may be based, not upon the possibly futile and certainly farfetched hope finally to reduce all levels of reality to the level of physics, but rather on the isomorphy of laws in different fields”. In the same sense, we cannot reduce the tiers or orders consisting “of a particular mode or quality of action or thought” (Mascalo & Fischer 2010, p. 156) to one cycle of fours but as shown in table 6, the “both… and” structure both has isomorphic aspects and difference or emergent properties: it is a different unity of differences.

As we have already pointed out: As Luhmann relates second order observations towards Hegel’s absolute spirit, it, as the spirit, is based upon a structure built out of three tiers: namely Being, Essence and Ideas (Hegel 2011). A tier-structure that is common in more structuralist thinkers in the Unitive realm. We have pointed to Charles Sanders Peirce’s (1998) firstness, secondness and thirdness that is followed by a fourth order implicit in his writing and which we earlier mistake for something else: “man is capable of a spiritual consciousness, which constitutes him one of the eternal verities, which is embodied in the universe as a whole”, so Peirce (1998, p. 3).

Peirce, too, offers another concept that can foster understanding of emergent properties. As he points out, it is of ultimate concern for understanding his categories to see “the distinction between the Genuine and the Degenerate” (Peirce 1998, p. 172): each of his three categories can appear in full form and in degenerate e.g. the representation of agent and patient as separate and in interaction “is, indeed, germane to Thirdness, while it is alien to Secondness. That is to say, agent and patient as they are by themselves in their duality are not distinguished as agent and patient” (ibid. p. 171) within secondness but just within a third, an interpreter, who can, too, as pointed out again see the unity of these opposites, understand agent through the patient. In the same sense, we have pointed out, that integration in the Achiever writing of Luhmann appears as adaptation and the social dimension as simple form of obedience regardless of one’s individuality: it is degenerate and only shows up completely with the third stage in this tier. For Luhmann, too, observations and second order observations, though evolutionary emergent are, ever-present, too: each time and place unfolded paradoxes, though unaware of doing so.
This is true, for the construct-aware stage, too: as it can carry four operations – adaption, goal-orientation, integration and self-thematization – but as it seems has are only three meaning carrying parts in its sentence completion: thesis, antithesis and synthesis; or first, second and third; or evolution, differentiation between system and environment as well as communication. Three minus four means that one operation has to be still in the background, it is there as degenerate and can only show up in a fourth meaning carrying part of a sentence- thus within the next Tier or as Aurobindo puts it: “Supermind is the fourth Name – fourth to that in its descent, fourth to us in our ascension. But Mind, Life and Matter, the lower trilogy, are also indispensable to all cosmic being, not necessarily in the form or with the action and conditions which we know upon earth or in this material universe, but in some kind of action, however luminous, however puissant, however subtle. For Mind is essentially that faculty of Supermind which measures and limits, which fixes a particular center and views from that the cosmic movement and its interactions” (Aurobindo 2005, p. 282). A fourth order that would be the genuine form of self-thematization of an identity maintaining itself by integrating all that is, differentiation within all that is and adapting to all that is, however localized and restricted it might be through its preconditions of being human or a certain type of system. Table 8 depicts the trajectory of tiers.

### Table 9. Stage and tier-trajectory with symbolism.

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If we take a closer look at the concrete stages, we can recognize that the symmetry here is actually not based on four operations but rather the outcome of two – the secondness of agent and patient: one can not only recognize this within the Homeric texts, but, in particular within the old testaments poetic structure of parallelisms (Zenger et al. 2012). In this special type of writing two sentences are added together either in synthetical, synonymous, antonymic or comparative form. One can see this in e.g. psalm 18:14 where there is written “and he sent out his arrows and scattered them; he flashed forth lightnings and routed them” or in psalm 18:4 “The cords of death encompassed me; the torrents of destruction assailed me” as well as in other passages where one can clearly see, who the agent or god it one with his patient the world as in psalm 19:1: “The heavens proclaim the glory of God; The skies display his craftsmanship”.

However, this structure is not only common in poetics but, too, in Interviews on moral Dilemmas done by Anne Colby and Lawrence Kohlberg (2010). There one can see the progress through the moral stages through the form this parallelism takes: e.g. on the question why a child is to obey to one’s father, it first looks like a) “[rhema 1 because it’s his father,] [rhema 2 subordinate always he is older]” (Colby 2010 et al., p. 244) and moves to the more complex concrete notions where the agent and patient are integrated like b) “because that’s his son [rhema 1 part one and if he] [rhema 1 part two doesn’t give him,] [rhema 2 part one he would get punished.] […] [He has to do rhema 3 part one] [ rhema 3 part two what his father says,] [rhema 4 or he will get a licking]” (ibid. p. 245) and culminates in c) [rhema 1 part one He should listen to his father] [rhema 1 part two because] if he listens to his father,] [rhema 2 part one his father might be good to him] [rhema 2 part two and give him things he wants]” (ibid. p. 247). Or as Patrice Marie Miller and Suzanne Lee (2007) show,
while the cognitive functioning of the 2.0, i.e. Rule-Oriented, individual tends to state “simple, single-action statements about what had happened. These statements can be chained together […] [and] generally [are] focused on subjects themselves or on the other person, but did not suggest coordination between the two, […] [while] conformist or 2.5 statements were also story-telling statements; however, they either showed the basic coordination between two people, or between two attachment entities” (Miller & Lee 2007, pp. 10f). There, discourse, as on moral stage 6 becomes a lived reality, where within the degenerate third, the still invisible, the communication with its interpretation, two sides are on within the “both… and… and the relationship of both sides to each other”. So, here we can see three stages. But this is true for an earlier stage, too, which creates sentences as complex as “[Theme an apple] [Rhema on the table]” (Ranti 2015, p. 105) correlating with the Impulsive stage as depicted in Hy and Loevinger’s (2014) Measuring Ego-Development. The stage where cognitive development allows people to “verbalize about what they like and want” (Miller & Lee 2007, p. 8).

But there is not only evidence from developmental measurement but as the Jewish philosopher and biblical scholar Friedrich Weinreb (2011) writes in Number, Sign, Form the concrete passages of the Tora, i.e. the Old Testament, are full of series of three with a final fourth. So, the creation story of the genesis can be structured as a series “where development from the first over the second to the third day fulfills itself” (Weinreb 2011, p. 50). The fourth, fifth and sixth day give rise to the accidental of the substances created on the first three days and are their own series. All culminates in the seventh day where both happens “God ended his work which he had made; and he rested on the seventh day from all his work which he had made” (Gen 2,2) – a concrete Form of latent pattern maintenance one might say with two opposite unified as “ending”, which sometimes is translated as “finishing”, and “resting”. More intriguing however is, that the third day and the third in many stories of the old testament is the position where a “both… and…” comes into play that “binds the earlier into a cycle” (Weinreb 2011, p. 51), so is the third and last of the patriarchs both “Jacob and Israel” (ibid. p. 51).

But Hegel’s being, which he himself related to childhood development, and Peirce’s firstness deal with an even earlier order, where according to Jean Piaget (1956) in The Origins of Intelligence in Children a child starts to raise external relations “to the rank of symbols by relation to themselves. The image so constituted therefore becomes the signifier of which the signified is none other than the sensorimotor schema itself”, which in Peirce’s (1998, p. 161) words might be a “Feeling, or Firstness, to represent itself to itself as Representation” without any second or third. At this stage children basically perform one rhema – phonemes, morphemes, echolalia, doubling of syllables maybe single word statements which include any higher operation of other categories. As Luhmann says the place where “the yes/no bifurcation opens […] to accept or reject an offered meaning […] and thus brings forth variation consequently within a communication directed to refuse communicative contents – it generates one deviant [or aligned] element nothing more” (Luhmann 2018b S.1140 & 2018a, S.460f) and that is the easiest form of evolution which later gets underpinned by selection and selective retention through memory. The speculative tier-structure than looks like it is depicted in Table 9. One can see there the successive substitution of operations from the earlier Tier until with the third stage of the tier all three operations are sourced from thirdness.
Whether or not there is a fifth order is an open question in this paper. A possible fifth might exist as additional tier or, as Ken Wilber (2018, p. 401) points out in his latest book within a seeming fourth phase adversary and instrumental grammar using three rhema: “[Rhema 1 part one whereas the infinity and eternity of this wholeness is always already given] [Rhema 1 part two and can never be attained.] [Rhema 2 and the ultimate reality of the entire show is fully present here and now.] [Rhema 3 the relative reality […] has to grow and develop and evolve through time, intentionality, effort, and work]”. Differently said, we have to increase the complexity of our observations and distinctions – the media is there, ever-present, everlasting but, too, as a question for the right modes of arbitrating complexity for operability and increasing the complexity of our world through operability and the resulting behavior.

Within this the challenges stay the same though we might find ourselves at one moment of this quest – that for unifying self-reference and the references of others or the consciousness within systems, their operations of observing completely exterior to us, with our consciousness – at a place where we start to life and engage a live that is the discourse of the all with the all. The interplay of any consciousness out there, with any observation, distinction, unity and unfolded paradox within us: but only as a fragment, as a miracle broken out of the mosaic, a oneness that only exists in its dissemination throughout humanity, sentience and the material universe however, so visible and visceral as it is, never apprehended in its completeness. It is merely a feedback from the whole into a part, a short departure and a wrong track of a mind that is meant to be collective, and thus turns into holding the lantern of friar and fabricating the illusions of Maya that are experienced as the hope for a pragmatic consensus and certainty within this endlessly changing and contingent that is held together by nothing more than nothingness as its boundaries – the patterns that can never be seen but through illusions;
a weaving together of communications within that self which is always already and has ever so perfectly been itself, as the incoming of complete other and the dialogue with him, as the dismemberment of the web of life but experienced as its oneness, as its nexus and sole importance as discursive identity and self-thematization.

Our individual media and grammar and form and lexis both as our identity are thus again and again taken for the impregnation of an alien media and form, degraded to a permanent possession of that which was completed in the same way, as a mosaic tessellated from fragments, a picture that lacks any totality but is complete in itself, as this one moment that is completely monopolized by this discourse with the other, the stranger and alien and is as its own self-alienation in these moments perfectly free and perfected freedom: an eternal quest for versions of inside and outside, accidentalism’s logic and substance thinking or to decide whether to be an Aristotelian mirror or a Platonic sun – a choice that is always to choose our mistakes, too, the next moment of separation as oneness and freedom as abuse within this everlasting distinctiveness and uniqueness of our modes of perception – mistaking means for ends and ends for means, the ominous godhead for a purpose and the dubious first distinction for god while networks and grammars sustain empty patterns and empty patterns are sacrificed for the sake of that one infinity, the discourse that is society, the all and all of communications manifesting what would otherwise be invisible: phases, layers and tiers, that suddenly can have no more boundaries, no longer exist and give place to a new reappropriation of totality completely impregnated by this moment of discourse contrary to the last. While we are thus weaving together what is meant to be separate forever, meant to be dilemmatic and ever-progressive, we are destroying any possibility for union, unless we completely and everlastingly erase our traces, end all distinctions, all differences, all identities within that which is always before and beyond, and thus wake up from that boundless dream that creates nothing but adaptations, systems and environments, integrations and its self-thematization. When we break through into the sleep of all divisions, separations and existences, the error to match the totality and its substance with our contingent observations we engage in the then unseen rupture and disintegration of a tiny fragment of the whole tapestry, eventually rippling out into the farthest reaches of the cosmos and making the end.

Measuring Repeating Patterns: The Concrete, Subtle and Meta-Aware

O’Fallon’s and colleagues (2020) research shows that, in terms of the assessment procedure, her model correlates with Cook-Greuter’s model up through the Autonomous, i.e. 4.5 stage; but beyond there both the paucity of data and divergence in stage definitions makes it hard to try to compare them. And hence, there is basically no branch to hold on for figuring out a correlation of the later stages of Terri O’Fallons Model with the two subsections of the Unitive stage we distinguished in the section called Construct-Aware and Unitive we only can create some vague assumptions a) based on the descriptions of her stages and b) based on a “look through the hierarchical methods […] [where] we see the horizontal universal essences of everything” (O’Fallon 2019, p. 3) and her seeming developmental stage and on reduction of “looking through the horizontal methods [where] we see a multiplicity of unique expressions that defy replication, yet continually grow and change through time” (ibid. p. 3) into her type within the substance/accidence scheme. By this and the knowledge we unfolded within this paper we are going to pin down four logical fallacies that show up regularly in developmental research and we hypothesize here that they might have been committed by Terri O’Fallon and thus influence the accuracy of her model compared to a hypothetical reflection of the underlying universal substance within which any model of reality is grounded through using its basic operations and distinctions. These hypothetical fallacies are: a) a mixing-types-with-stages-fallacy, b) a decreasing-span-with-increasing-closeness-fallacy that might be, too,
driven by a decreasing-span-because-of-increasing-depth-fallacy, c) the misallocation-of-operations-fallacy and finally d) the simplicity-of-categories-and-lack-of viability-through-decreased-diversity-fallacy.

Terri O’Fallon in 2012 writes, that “the expansion [of consciousness] moves beyond individual experience to collective experiences, to contextual experience to experiences of the Kosmos as whole, only step out of that to find that the container that holds this vastness is nothing but a world of Mind that makes distinction” (O’Fallon 2012, p. ). Here, we can see the structuralist unfoldment of paradox, where all of the three earlier meaningful operations – “[Rhema 1 part one as changing Interpretations the expansion moves beyond individual experience to collective experiences, to contextual experience to experiences of the Kosmos as whole,] [Rhema 1 part two as Action only step out of that] [Rhema 2 part one as changing of Perception to find that the container that holds this vastness]” – are present as the “nothing but”, a categorization, of the more platonic and structuralist thinkers: “[Rhema 2 part two as Awareness of Spirit/Mind a world of Mind that makes distinctions]”. The seeming fact that she uses two rhema or one theme and one rhema puts this passage into Luhmann’s autological stage. The grammar points towards a third to fourth phase, including adversaries and “the expansion” and “a world of Mind” as instrumental modifications in form of categories.

Since she, in her Collapse of the Wilber Combs Matrix, indicates her personal transition into what she calls the nondual or unified Tier, “as this wondering that seizes one’s gaze as one fitfully surrenders mind to the nondual Divine that begins to transcend the kingdom of the mind that makes distinctions” (O’Fallon 2011, p. 24), the second half of the second subsection of the Unitive realm could cautiously be considered as the first nondual stage within her model.

Based on the approximation of her type and her stage, there is a likelihood of a subordinationistic mode within her model that might show up in at least four ways that lead to a) a mixing-types-with-stages-fallacy:

1. One could see, that inside perspectives in O’Fallon’s (2013) stage theory where meant to coalesced with stages showing an inability to prioritize. Thus, accidentalism and the genetic view might easily be seen as less valuable if people move into an overgeneralization of seeing more Aristotelian points of view as a sort of mental disability. People might put anyone expressing process-like points of view at these two, the passive and reciprocal stages, while substance and structuralist thinking might falsely be perceived within the active and interpenetrative phases being more valuable as connected with more abilities, most prominent the power of priorization.

2. As we have depicted in the section From second to fourth phases and in Further differentiation in the Unitive realms the accidentalism’s expression of the Unitive sub-stages includes the unity of opposites within an observer, while the structuralist version includes an interpreter. The later point of view with the third between the second and first might better match “a still point centering between” (O’Fallon 2010, p. 66) a polarity and thus create the impression of a 6.0 perspective.

3. Aggravating point 2: Since, Luhmann and other Aristotelians use the shifting of boundaries and choosing one side of self- and other-reference or inside and outside as well as other dualities like transcendence and immanence, at both the first and second Unitive substage, they fit the 5.5 Transpersonal criteria “of making a choice […] [and]
'move the line’ rather than step ‘over the line’ or ‘out of line’” (ibid. p. 63) at all later stages. Whereas the Platonic counterparts already use the 6.0 criteria of having “no self at the center of this stage […] with a sense of universal connectedness” (ibid. p. 67) as well as “a deep acceptance for all of life just as it is” (ibid. p. 67) at the Construct-Aware altitude – at least Wilber does – and thus might be scored later. And this despite not expressing more hierarchical complexity but preferences for lexis and using the available grammar and operations for expressing different experiences. Abraham Maslow in the *Farther Reaches of Human Nature*, already pointed to this difference of Aristotelian and Platonic self-actualizers, where the later “speak easily, normally, naturally and unconsciously the language of being, the language of poets, of mystics, of seers, of profoundly religious men, of men who live at the Platonic-Idea level […] under the aspect of Eternity” (Maslow 1993, p. 273).

4. Since the 6.5 Illumined stage in the *Evolution of the Humans Soul* is classified as apprehending “cross floor and cross world (the concrete world of matter, the subtle world of life and the causal world of mind) patterns” (O’Fallon 2010, p. 68) an these are only foregrounded in structuralist thinkers it might be less probable or even impossible to be assessed at 6.5 for an accidentalism oriented thinker if at the same altitude or level of grammatical complexity as a structuralist and neo-platonic thinker is. As it appeared to us, themes elaborated on by outside perspectives are elaborated by inside perspectives one stage later and maybe not at all – a dependency of stage based on whether identifying with the subject or the object of stage.

These four points in combination and in respect to Terri O’Fallon’s seeming stage and personality type, at least give some rise to the hypotheses that her model could have created a typological gradient into its measures and metrics. It might therefore lead to different assessments than the assessment methodology we proposed here, which as far as possible looks at the number of used operations and creates an assessment on the basis of hierarchical complexity that is expressed within a person’s lexico-grammatical self-expression.

Figure 6 depicts the approximate correlation for the complete stage trajectory including the latest stages thus paying credit to the hypothesis that Terri O’Fallon’s model includes a mixing-type-with-stage-fallacy as reasoned in the above section. Additionally, the table makes visible that each the Pluralist or 4.0 stage as well as the Autonomous or 4.5 stage only make up for half a stage compared with the earlier ones described in Ego-Development theory. The comparatively decreased scope of both stages leads to an increase in the number of stages at the upper end of the Loevinger and Cook-Greuter scale and since this scale was adopted by O’Fallon this increased density at the upper end represents another logical inconsistency that seems to be within the sediment of her model, the b) decreasing-span-with-increasing-closeness-fallacy that might be, too, driven by a decreasing-span-because-of-increasing-depth-fallacy.
The scopes and boundaries of a stage normally don’t play a major role in assessing, if each stage has its own independent descriptions and scoring criteria based on themes and topics like in the work of Hy and Loevinger (2014) as well as Cook-Greuter (2010). Contrary, if measurement is based on a repeating pattern varying boundaries and breadths of stages as well as tiers can be seen as an indicator of internal contradiction. Alternatively, there would be a need to modify the set of assumptions and principles behind the model. This could mean to include a notion that later tiers embrace for whatever reason less span. However, it is not atypical for models to commit a fallacy that leads to an increase in the number of stages at a certain point of the trajectory, mostly at the upper end: Wilber’s full spectrum model (2018).

**Figure 6.** Comparison of the trajectory with hypothesis about Terri O’Fallon’s model of human development.
does not depict all the earlier stages and additionally has an increased density in the middle of the trajectory and towards the end; Graves (2006) ECLET is getting very dense at the later stages and Commons (2016) MHC conceptualizes several hypothetical stages at the upper end. The reasons for such a fallacy might be twofold: a) there is increasing depth with each stages that might be confused with span – the early and late versions of a stage are much easier to discern – and b) that like with an approaching car, the closer it comes the faster it seems, and thus the closeness leads to reasoning about increased speed or hence, an increased number of stages; it is some sort of Doppler shift: the change in frequency of a wave in relation to an observer who is moving relative to the wave source. Given the assessment of Terri O’Fallon’s stage – and the hypothetical accuracy of that assessment – in the beginning of this section it is most likely that her model falls in the decreasing-span-with-increasing-closeness type of this fallacy with the so called meta-aware tier as the smallest, spanning just two and a half stages compared to the approximately eight stages of the concrete tier and the three of the subtle tier. Figure 6 graphically illustrates this observation for the mentioned models.

According to the assumptions of the here depicted model each person if once entered the fourth Tier displays the ability to express quadruplicities within one sentence rather than triads – with the quadruplicity as an ability that is displayed in degenerate form even earlier but only fully fledged within the fourth order of consciousness. Thus, it is just natural that tier models at the latest stages depict patterns of fours instead of patterns of threes like Kurt Fischer (1980) and Erich Jantsch (1979) in the culmination of the third tier who have just a degenerate fourth – a fourth which is at the same time a first: mistaken so to say. As Carl Gustav Jung (1977, p. 619) puts it in his *Mysterium Conjunctionis*: “the alchemical formula for this is the Axiom […]: ‘One becomes two, two becomes three, and out of the Third comes the One as the Fourth’”. Exactly because four operations are available now, these operations can be used to dissect reality and allocate judgments within the spaces surrounded by differences – and this includes like in the natural sciences that immature explanations deceive much of reality, like the idea of a flat earth vailed the possibility to circuit planet earth. If we use our modalities of consciousness to look at something real, something with a material correlate, our stories can err dramatically and thus confine our possibilities.

To further explicate this thought we can use one of the main assumptions of a Peirccean pragmatism, that is, even our subtle models of reality, like schemes of categories and orders of stages, are not only a pragmatic consensuses, but, too, have reality and failing “to recognize the reality of all the categories […] would point out the fatal defect of” (Peirce 1998, p. 181) a system. However, recognizing categories is not enough since the pragmatists summum bonum lies “in that process of evolution whereby the existent comes more and more to embody those generals which were just now said to be destined” (Peirce 1998, p. 343) – this primarily means the categories’ growing into themselves and self-thematizing their own existence. And the potential reality and match with something real creates the main question each developmental model proposing repeating patterns has to face from our point of view: are its applications of the four meaningful components of the fourth tier’s operations applied in a way that matches the reality behind the surface expressions within consciousness and thus the model fulfills the destiny of our observations, reasoning and creation of stories or does it fall short of reality. Since as Wilber (2006, p. 272) puts it: “because once a level has evolved, it is a very real structure existing in the universe […] (cosmic habits or cosmic memories) [that exist] independently of any particular human and become something that all humans must confront.”

Does a model come close to that which is disclosed within another sphere, does it approximate the transcendental categories that “are transindividuall or collective cosmic habits,
which push against any human psychology and guide its growth” (ibid. p. 272) along a trajectory of relatively even and repeating patterns, these disclosable living realities that are not only human constructs but can carry constructs which are applied towards themselves within a functionally fitting manner? For if not: these transcendental functions and the fabric of reality becomes malformed and distorted maybe even to the degree of a rupture that might end all of humanity and at the very least creates the illusion of natural order and hierarchies where non are given – is it a tool of injustice and oppression of the facets of consciousness and evolution itself or is it their self-liberation towards itself? We can make this more tangible by an example: The famous psychoanalytic and expert in child development Margaret Mahler writes in the *Psychological Birth of the Human Infant* that “the normal separation-individuation is the first crucial prerequisite for the development and maintenance of the ‘sense of identity’” (Mahler, Pine & Bergmann 2000, p. 11). A maladaptation to the child’s need in this sensitive period by caregivers can lead to “the psychotic child [that] never attains a feeling of wholeness, of individual entity, let alone ‘a sense of human identity’” (ibid. p. 11). In the same way are person with late stage awareness the obstetricians and midwives as well as fathers and mothers of late stage awareness and maladaptation to needs of the wards can have similar outcomes on their psychological birth into the most sophisticated forms of human consciousness and reasoning.

The original dilemma comes from our twofold condition of which pragmatism somehow describes the convergency towards absolute truth, whereas the conditioning of our mentality is better described by the constructivist schools as only seeing relatives. Both sides play together in our consciousness where the coalescence with the phylogenetically grown absolute reality, the application of these transcendental functions or stage and tier operations habitual to our cosmos, can only produce contingents, actualities that can always be imagined to be different, since they are based on each observer’s observations within a merely closed ontogenetically formed system as well as in its structural coupling with certain modes of societal discourse and self-thematization. As far as “everything that is happening in a living system, in the factual operations of its elements’ properties, […] operates solely in the present that is, it is determined by the structures, which it possesses in the moment of its structural self-realization” (Maturana 2000, p. 182f) each living system and consciousness is challenged by a special condition when the tier operations are turned back on themselves – when the relative tries to grasp the absolute, when the object apprehends the functions of the subject, or the inside looks towards its outside: contrary to observations of other mental realities, that are as interpretations and imaginations quite subtle and fluid and represent no absolute truth but generate truth in hindsight, the observation of the subject itself is an ongoing observation turned back on the quasi eternal truth of the substance these categories are. Thus, where the form tries to recognize its media, that means the accidentals their substance, contingency is contingent to what it’s contingency is built of and irrespective of this condition tries, within that contingency of its descriptions, to recognize the unconditioned and essential. The recognition of the underlying substance or transcendentally structured ground of consciousness that was involved into our brains and minds by millennia of evolution, which are therefore to a certain degree habitual, material and solid. Missing them thus can deteriorate the reenactment and reappropriation of evolution with itself and its merely permanent grooves as the involutionary structures we enact in our very consciousnesses similarly to the idea of a flat earth which did thwart the discovery of new shipping routes.

The idea that stages and patterns are cosmic grooves opens up the possibility for an inconsistency that we can call the misallocation-of-operations-fallacy. While the allocation of the operations to the world is more a creative and constructivist endeavor, the search for the best stories and descriptions of the autopoietic processes that generate their own criteria of beauty,
truth, clearance and goodness able to ride on the surface of the original transcendental media – a media that is generalized by the functions of the tiers and their grammatically and thus adaptative, differential, integrative and self-thematizing possibilities – looking at consciousness itself has like the natural sciences a clear restrictedness through reality, where ships don’t find routes or even worse the miscalculation of an equation can lead to devastating effects – like the meltdown of a reactor or a psychotic child or deformed late stage adults despite the best intents of the actor. A model in this set of assumptions generates its aggregate value four-fold: a) by enacting creativity within the discourse and making it adopt to better stories, b) by reappropriations of what is real beyond the purely contingent, however contingent and ever-unfolding the reappropriation is, c) by potentially or eventually changing the mode of integrating ourselves into these media and generating new forms of enacting and synthesizing through these categories and last but not least d) to discern whether or not these reappropriations serve the harmonization and maintenance of the evolutionary whole or leads to its deterioration. Both approaches thus not only relate to different truths and means-ends orientations but, too, to different imperatives when it comes to the conceptualization of models – despite being intriguingly connected. Since tending towards describing the absolute truth behind the contingencies can lead to absolute errors it needs absolute imperatives and practices that lead to the best possible reappropriation of the invisible. Figure 7 graphically illustrates the considerations about the misallocation-of-operations-fallacy.
Figure 7. Two ways of creating models of reality and their implications.

One seeming absolute imperative creates the possibility for d) the simplicity-of-categories-and-lack-of viability-through-decreased-diversity-fallacy. As Zachary Stein and Katie Heikkinen (2009) write in Models, Metrics, and Measurement in Developmental Psychology privileging of “deep-structural properties indicative of development […] allows us to measure and assess development in many lines using one metric” (Stein & Heikkinen 2009, p. 12) but at
the same time models doing this “dubbed structural properties as indexes of development: for example, they privileged attention toward properties like differentiation/integration, concreteness/abstractness, simplicity/complexity” (ibid. p. 12). The prioritization of a complex web of measures that are not only aligned with each other but calibrated across different models – for the realm where models with metrics and measures exist – and authors’ life works decreases the overall value and worth of one measure and thus reduces risks. Similar to a hedge-fund on the financial markets, the bundling of investments that have a dispersion across markets and economic sectors, the bundling of metrics and measures reduces risks especially those generated by our very human nature’s typological and cultural biases. The whole point, too, can be broken down into Ashby’s (1956, p. 207) law of requisite variety: “Only variety in […] [the measures] can force down the variety due to […] [the diversity of humans]; only variety can destroy variety”. This is what we call d) the simplicity-of-categories-and-lack-of viability-through-decreased-diversity-fallacy.

The fact that Terri O’Fallon’s model basically has crystallized out of the soft measures, “metrics with mainly qualitative standards for determining the amount of a trait” (ibid. p. 7), derived from Cook-Greuter and Loevinger, a mere monological arising from only one tradition of measurement combined with the reduction to only three variables for measurement – tier, individual vs. collective and ability to prioritize or not – as smart and elegant it might seem could even increase the vagueness of “meaning making assessments […] [which are anyway already] expected to be a bit fuzzier and imprecise, compared with application of Skill-Theory” (Murray 2017, p. 52) and other grammar-based assessments in general and thus decrease the viability of the overall scheme of transcendental truths behind our observations and distinctions.

This fallacy or rather taken risk – if the reasonings in this paper are partially or completely true – might be responsible for all other fallacies since they are all easily avoidable through a discursive approach that considers multiple models and metrics and thus enables oneself to apprehend errors within one’s reasoning through the multiple voiced field of knowledge surrounding each observer as his or her milieu. A pragmatist’s perspective has to be a consensus both with others and with what is ultimately real and true behind or as the media that consciousness is – a state of nonduality that is the prerequisite of a discourse of the all with the all or the self-thematization of human mind in a larger field or the social sphere – which is only possible through a discursive approach – since oneself is always merely an individual rather than a general.

The comparison with other models can, additionally to pointing out the comparatively uneven and premature tier-shifts, question some other basic assumptions of Terri O’Fallon’s model. We already mentioned that passive language seems to be possible across all stages and all phases. Too, if there were a tendency for passive language would this be an indicator of a person’s ability to prioritize? For Kohlberg the priorisations-pattern would look completely different: for him the person at moral Stage 6, which should approximately correlate with the 5.0, i.e. Construct-Aware stage, is “able of completely reversible ‘role taking’” (Apel 2016, p. 331), which can lead to principles of justice like Kant’s categorial imperative and Rawls principle of justice as fairness. It is the prioritization of an internal or external discourse with a difference of actuals and possibles and a purpose which is suspected to make ends meet. One’s stage 6 “moral point of view, from where the individual can orient itself within the questioning of right and justice” (Apel 2016, p. 321) allows to prioritized certain universal principles that serve as meta-rules for discourses or internal practices that not only see one point of view but are “the perspective of a ‘moral point of view’, from which societal order is derived […] that accepts that each person is a purpose in itself” (Kohlberg 1996, p. 132). This is an ability
which Kohlberg saw lacking within the assessments of people at moral stage 5 – O’Fallon’s interpenetrative and therefore prioritizing stage. These individuals could apprehend procedures or contextual rules “that integrate different perspectives through the mechanisms of formal agreement” (ibid. p. 131), but still only through one’s own or larger systemic context’s point of view. Contrary for O’Fallon the Construct-Aware individual is denoted as passive “with little ability to prioritize any of the constructs that one is seeing” (O’Fallon 2010, p. 61).

Again, this incongruency is owed to the seeming premature tier shift compared to the depicted model in this paper. Since for Apel (2016) and Habermas (1990) moral stage 6 and thus construct aware was a stage of complete reciprocity within the abstract realm, it would rather be depicted as collective than individual and the foundation for priorisations thus is collective as the grammar of the action oriented and beneficiary applicative as well as derived intransivity could indicate – a mode of priorization that might be less visible when one looks at the stage as centering around a 1st Person.

But how could one explain the seeming misallocation-of-operations-fallacy and thus the different Tier-shift? We already mentioned that for Hegel, Luhmann and others the first and fourth within a tier are most similar to each other, even though they are basically opposed to each other as being subject and being the pure subject as I-I or being the substance of the me, you and all, the self-thematization of a system including even what it negates or excludes as its boundaries. Since the fourth in the subtle tier is simply degenerate and cannot be completely present within three meaningful sentence parts performing a quadruplicity the expert and construct aware match each other in so far as they both can hold two poles through a third: the 5.0 stage with two subtle poles as the “both… and... and the relationship of both to each other” and the 3.0 stage as the mental holding two sides or operations of the concrete. Figure 8 illustrates this similarity.

![Figure 8. Similarities between the 3.0 Expert and the 5.0 Construct-Aware stage.](image)

However, all of this were not a problem if not an even overarching pattern was asserted which if it existed misallocated at least an individual or adaptative stage where a collective stage of full reciprocity should be according to other models and an even iteration of the quadruplicate tier pattern – a flaw that surely generates an upward domino effect. Additionally, the distribution of four stages into two and a half potentially leads to further maltreatment of assessed persons and only works through other biases like the type-stage-fallacy as long as the reasoning depicted in this section is scientifically sound and further supported by other observers.
Table 11. Potential Fallacies committed within Terri O’Fallon’s Model.

<table>
<thead>
<tr>
<th>Fallacies that might be Committed</th>
<th>Characteristics and potential Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixing-types-with-stages-fallacy</td>
<td>Seeming subordination of Inside Views</td>
</tr>
<tr>
<td></td>
<td>→ At least delayed stage shifts for Inside View persons</td>
</tr>
<tr>
<td></td>
<td>→ Unnatural hierarchies and power structures (punishment of persons with an inside view on reality)</td>
</tr>
<tr>
<td>Decreasing-span-with-increasing-closeness-fallacy</td>
<td>Increased Number of Stages at the top</td>
</tr>
<tr>
<td></td>
<td>→ Uneven Tiers and misallocation of operations</td>
</tr>
<tr>
<td></td>
<td>→ Measurement with repeating patterns of passive, active, reciprocal, interpenetrative should be logically impossible without perceptual biases that distort assessments towards expected outcome</td>
</tr>
<tr>
<td>Misallocation-of-operations-fallacy</td>
<td>The seemingly existing repeating patterns or tier-operations are misallocated</td>
</tr>
<tr>
<td></td>
<td>→ Uneven Tier Shift and mismatch with deeper reality</td>
</tr>
<tr>
<td></td>
<td>→ Potential maltreatment of people</td>
</tr>
<tr>
<td>Simplicity-of-categories-and-lack-of-viability-through-decreased-diversity-fallacy</td>
<td>The seeming cause of the hypothesized problems as lack of fourth tier discourse orientation and oversimplified as well as overgeneralized measures</td>
</tr>
<tr>
<td></td>
<td>→ Inadequate management of scoring risks</td>
</tr>
<tr>
<td></td>
<td>→ Threatening overall health of universal trajectory</td>
</tr>
</tbody>
</table>

O’Fallon’s and colleagues’ (2020) latest publication which claims the validation of her new scoring method allows us to take a look at how both our systems come to same or different results in scoring since “Appendix 3: Scoring samples from the Concrete, Subtle and Meta-Aware tiers” (ibid. p. 12) includes scoring examples.

1. “At times I worry about… the future of my country.” (O’Fallon et al. 2020, p. 12) was scored at subtle, individual, active 3.5 Achiever and would be a second to third quarter, third tier, first stage score by the here depicted method, thus Expert. It includes only one abstraction and is written in an accusative-possessive language. Concomitantly Hy & Loevinger (2014) rate the completion “…the future of the world” at E5 Expert through scoring category 5r contrary to scoring category 6r E6 Achiever “…the future of society and, indeed, of civilization” including two abstractions.

2. “Change is… inherent in living and connecting in the world; it prompts me to shake myself off from the slumber of consistency and embrace the excitement of newness” was scored at subtle, collective, reciprocal 4.0 Pluralist and would be fourth quarter, second stage, third tier and therefore exiting Achiever with the here depicted method. Though, depending on the overall assessment it might be interpreted as a single “both…and” phrase of “living and connecting” and to continue with another “both…and” of “prompting to shake of” and “embrace the excitement” and henceforth would include three abstract components in one meaningful composition – a Pluralist or Autonomous rating it is more likely that we deal with an Achiever version of
“both… and” or exiting stage “unity-between-opposites” insofar as “to shake myself off from the slumber of consistency” and “embrace the excitement of newness” are merely coextensive or synonymous and only a reference switch or co-subordinate to each other.

3. “When I get mad… knowing that uncontrolled unleashing of the power I now access can create undesired damage, I recognize the feeling tone in my awareness and I take myself on, stepping toward what brought on the anger, as I know that the emotion points at the growing developmental edge I have asked the universe to stretch” was scored at met-aware, individual, active 5.5 Transpersonal and would be a third to fourth quarter, first stage, fourth tier and thus Unitive response. It includes four components “[First Component knowing that uncontrolled unleashing of the power I now access can create undesired damage,] [Second Component I recognize the feeling tone in my awareness] [Third Component and I take myself on, stepping toward what brought on the anger,] [Fourth Component as I know that the emotion points at the growing developmental edge I have asked the universe to stretch]” including a lot of dative and locative grammar within the oneness of two opposites: “the feeling town in my awareness makes me take on stepping towards the anger an outside and at the same time it is my inside, the developmental edge I have asked to stretch”.

4. “Women are lucky because…as the canvas they contribute to the Universes' particular paintings in the Sacred's art gallery by continuously receiving the brush of many colors, and thus are formed by the timeless, never ending layers of humanity's pigment” was scored at met-aware, collective, reciprocal 6.0 Universal and would be scored at fourth stage, fourth quarter of the third tier, at the late Construct-Aware stage. It includes only three components organized in an instrumental fashion: “[First Component as the canvas they contribute to the Universes' particular paintings in the Sacred's art gallery] [Second Component by continuously receiving the brush of many colors,] [Third Component and thus are formed by the timeless, never ending layers of humanity's pigment]”

Here one could again evidence a type-stage-fallacy: the inside view “oneness of opposites” at the first Unitive stage is assessed at an earlier stage then the outside Construct-Aware completion that is using overly spiritual and metaphoric language as we already know it from the conflict within the Aristotelian and Platonic writing traditions: where earlier is famous for its syllogistic reasoning as well as carving out of principles while later is known for its rich analogies and metaphors.

**Final Overview**

Within this paper we moved through Luhmann’s career as a systems-thinker. We started from the, Achiever, and ended with Unitary, so far as we use the terminology of Susanne Cook-Greuter. We could see changes in grammar and changes in conscious preoccupation, as well as these in interpersonal mode and character or identity development. Anything we found was already pointed out by Luhmann himself. In one or the other way we rode the web of his life with the sparkling horses of anything but only him. We silently assumed many things and we put into words some others – we coded and decoded into their own semantics a number of texts. These are listed in the final table. We cross-referenced not only with linguistics but with thinkers of other domains, too, depicting something that still can be doubted and should so. As it is only a web of grammars and words: a contingent within contingencies trying to apprehend in a reappropriation the universal substance we are made of in order to serve the re-
duction of complexity, operationalizing a life that can sustain itself through creating new and more adequate complexity.

If there is one more thing to mention – as Luhmann shows in an extraordinary way: stages don’t disappear once lived through, they always stay and have to be cared for and nurtured and re-entered to resolve the paradoxes of life. Table 11 shows some of the highlights on his fruitful path we investigated here and from which we were so richly nourished.

**Table 12.** Some of Luhmann’s writings depicting his life as a writer and across several stages.

<table>
<thead>
<tr>
<th>Stages</th>
<th>Books on the Trajectory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achiever</td>
<td>The Formal Organization (1964)</td>
</tr>
<tr>
<td>Goal-Oriented</td>
<td>Basic-Rights as Institutions (1965)</td>
</tr>
<tr>
<td></td>
<td>Right &amp; Automation (1966)</td>
</tr>
<tr>
<td>Pluralist</td>
<td>Science of Administration (1966)</td>
</tr>
<tr>
<td>Integrative</td>
<td>Trust (1968)</td>
</tr>
<tr>
<td>Autonomous</td>
<td>Rationality of Systems (1968)</td>
</tr>
<tr>
<td>The Formal Organization (1964)</td>
<td></td>
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<tr>
<td>Pluralist</td>
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<td>Rationality of Systems (1968)</td>
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<tr>
<td>The Formal Organization (1964)</td>
<td></td>
</tr>
<tr>
<td>Construct-Aware</td>
<td>Sociological Enlightenment I (1970)</td>
</tr>
<tr>
<td>Self-Thematizing</td>
<td>Political Planning (1971)</td>
</tr>
<tr>
<td>Sociological</td>
<td>Sociology of the Right (1972)</td>
</tr>
<tr>
<td>Enlightenment</td>
<td>Systems-theory of Society (1975)</td>
</tr>
<tr>
<td>1st Period</td>
<td>Power (1975)</td>
</tr>
<tr>
<td>2nd Period</td>
<td>Function of Religion (1977)</td>
</tr>
<tr>
<td>Observing</td>
<td>Societal Structure &amp; Semantics I (1980)</td>
</tr>
<tr>
<td></td>
<td>Societal Structure &amp; Semantics II (1981)</td>
</tr>
<tr>
<td></td>
<td>Function of Religion (1977)</td>
</tr>
<tr>
<td>Unitive</td>
<td>The Economy of Society (1988)</td>
</tr>
<tr>
<td></td>
<td>The Science of Society (1990)</td>
</tr>
<tr>
<td></td>
<td>Ecological Communication (1986)</td>
</tr>
<tr>
<td></td>
<td>Knowledge as Construction (1988)</td>
</tr>
<tr>
<td>Analogical</td>
<td>The Religion of Society (unfinished post hum)</td>
</tr>
<tr>
<td></td>
<td>Organization and Decision (finished 1998 post hum)</td>
</tr>
<tr>
<td></td>
<td>Observations of Modernity (1992)</td>
</tr>
<tr>
<td></td>
<td>The Politics of Society (unfinished post hum)</td>
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</tbody>
</table>
References


STAGES
Methodological Principles for Future Enaction
Trisha Nowland¹

Introduction

This paper begins in invitation from Tom Murray for this special edition of Integral Leadership Review, to provide alternative perspectives on the STAGES Matrix model. The perspective I am offering here is based on my recently completed theoretical PhD in psychological research methodology, accompanied by an enduring interest in developmental psychology, psychoanalysis, and data science. My background with the STAGES Matrix model comes via participation in the Generating Transformational Change (GTC) program in 2011-12, which was co-founded by Terri O’Fallon (who is no longer a principal with Pacific Integral, the same organisation). This was followed by engagement in several winter programs in Integral Polarity Practice with John Kesler and Thomas McConkie online since 2012, who both reference STAGES within IPP sessions (see conversation in this special edition). They have also worked closely with O’Fallon to continue to innovate the STAGES model. The background is given here both to describe my experience with STAGES, and to acknowledge the limitations of my expertise on many of the emergent subtleties of the STAGES Matrix model as currently taught by its primary representatives, Terri O’Fallon and Kim Barta.

The content of this paper derives from an interest in thinking through how the post-formal developmental levels described in STAGES could be applied to the very processes of researching and theorizing about human development, specifically, in psychology research. I feel a tension between the more complex construct-aware, context-aware, relationality-aware, and process-aware capacities pointed to by the STAGES 4th person-perspective (and higher), and the simplistic method of modeling development in terms of a single linear stage sequence—one which describes its outcomes without reference to the examiner, or study context. Note this tension exists for most developmental models in mainstream psychology, as well. Thus, the principal question pursued in this paper is:

How could the capacities described by “4th person-perspective” offer deeper contributions to psychological theory and practice than is currently in seen linear stage-based developmental models in psychology research?

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The question perhaps seems fraught, at first glance; STAGES uses person-perspectives to exactly describe its levels of ego development. In what follows, we will work to disambiguate ideas about ego development levels from ideas about person-perspectives, drawing on the history of the ego development concept as founded in the work of Jane Loevinger. We will then explore how person-perspectives as a concept offers unique discursive resources (Chase, 1995) to psychology methodology literature. The question above is posed as important for psychology research, to the extent that 4th person-perspective offers perhaps the most appropriate way to account for the effects of social and cultural phenomena in the psychology research paradigm. The psychology research paradigm and its mainstream applications remain largely uninformed with respect to what 4th person-perspective methods of inquiry may entail. It is proposed in this paper that the greatest contribution that the STAGES Matrix model makes to psychology research may not necessarily be the refinement of categories of ego development levels, but may be best characterised by how methodology can be refined by taking into account 4th person-perspective - something rarely encountered in conceptualizations of “scientific” inquiry, in my experience.

In pursuing the question above, some tensions are drawn out for the STAGES Matrix. We begin by orienting to the STAGES model as described by the “three questions” of the STAGES Matrix, shown below.

![STAGES Matrix](https://www.stagesinternational.com/about-the-model/)

**Figure 1.** STAGES matrix Three questions. From: https://www.stagesinternational.com/about-the-model/.

There are three key principles that can be directly noticed in the above table. The first is a recurrence of patterns, particularly for the elements of Social Preferences and Learning Styles, with specific start and end points for these. The second key feature of note is the alternating swing between individual and collective in the Social Preference question. The final key feature of interest is an absence: a lack of an account of the embedded social and cultural context as an embodied being, which we must exist within, in order to have any opportunity for STAGES to unfold. This last point brings into view some indications for generative advancement with respect to the nature of assessment, for the STAGES Matrix. The sections that follow are ordered

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accordingly. Firstly, we address some **philosophical or foundational questions** for STAGES, noting a reliance on pattern-making that accompanies this model. The mid-section orients to questions of **relationality**, specifically for the individual-collective polarity, shaped by literature on social meta-cognition and psychoanalysis. The final section takes as its departure point the concerns made clear in the first and second sections, and offers some insights on **methodology** for psychology research that makes use of sentence completion test data. We begin with historical and philosophical perspectives in personality psychology, as we consider the origins of ideas that found the STAGES Matrix.

**Philosophical Perspectives**

In what follows there is an effort to retain systematicity as a quality which is beneficial to psychological research, and in this section there is an effort to remain systematically **historical** in what follows. Rather than extending across the terrain of “a theory of everything”, then, there is a tracing of the particularity of the beginnings of ego development theory in the work of Jane Loevinger. A recent paper from O’Fallon (2018), “STAGES: Everything is a perspective” identified building on the work of Jane Loevinger, by proposing a structural model that does not rely on content from participants to guide the structure of ego development theory. For O’Fallon, this is stated as important to allow for continuous updating of the sentence completion tests to socially and culturally relevant phenomena of the time:

Models that only use categories of content will continually have to update that content because it is constantly changing even though the perspective is structurally the same. Having models that have structural parameters can continue to score as the content changes. (O’Fallon, 2018, p. 20)

The shift that is articulated is one that steps beyond the taxonomic approach to characterising the levels of ego development pursued by Loevinger, later extended by Torbert and Cook-Greuter (see Kegan, Lahey, & Souvaine, 1998, and Appendix 1 for details). Loevinger collected data from a large number of participants, and sorted these into categorisations, based on theory developed by Harry Stack Sullivan from her early work researching authoritarian parenting styles. The groupings of phenomena that shape her account of ego development come directly from participants, and what she was observing as clusterings, around particular ego development levels, or worldviews.

What is proposed for STAGES is something different. The theory begins from a hierarchical and repeating structure for the construct of ego development, that can extend below the levels of linguistic abilities necessary to fill in the sentence completion tests that provide the assessment information for any one individual, and can extend past into higher levels as chartered for example in Wilber (2000, 2016) or Aurobindo (1990). What is preferred for STAGES is orthogonality in structure, rather than the imprecise overlap of organic clusters grown from data gathered over time, as seen in Loevinger’s categorisations.

Loevinger’s approach to psychological research has been identified as consistent with constructivist realism (see Slaney, 2017, p. 185). For Loevinger, this meant that the data
Traits exist in people; constructs (here usually about traits) exist in the minds and magazines of psychologists. People have constructs too, but that is outside the present scope. Construct connotes construction and artifice; yet what is at issue is validity with respect to exactly what the psychologist does not construct: the validity of the test as a measure of traits which exist prior to and independently of the psychologist's act of measuring. It is true that psychologists never know traits directly but only through the glass of their constructs, but the data to be judged are manifestations of traits, not manifestations of constructs. Cronbach and Meehl and their colleagues on the APA committee appear reluctant to assign reality to constructs or traits. Considering traits as real is, in the present view, a working stance and not a philosophical tenet. (Loevinger, 1957, p. 642)

For Loevinger then, the construct of ego development had a logic and meaning mostly in the hands of fellow psychologists and researchers, built from the data that she collected from participants, informed by stage-type conceptions of Piaget (1932) and Sullivan (1953). Her perspective on traits is important for our considerations here as it appears that her conceptualisation of traits is as descriptive summaries useful for clinical intervention, not as internal causal psychological properties, of humans. With the structure for STAGES seen in the image above, there appears to be an implied characterisation of ego development that is closer to the latter rather than the former - it appears there is a causal engine assumed in the polar structures adopted, in the STAGES model. Loevinger on the other hand had built her account of ego development theory into what she self-described as a scientific paradigm, or disciplinary matrix:

A scientific paradigm is shaped by its data and in turn shapes them. No simple Baconian program for data accumulation nor hypothetico-deductive program for disconfirmation of hypotheses encompasses that dialectic, still less a program based on factor analysis, multiple discriminant analysis, or random computer searches of data. There is a corresponding tension in our conception of people, not surprisingly, since scientists are people. Much as we have learned about how the structure of character evolves and is maintained, there will always be more. I do not count as failure but as an act of courage to admit that the heart of the matter is and always will be a mystery, opaque to the scientific glance. (Loevinger, 1976, p. 433)

Our question then for STAGES becomes one of whether the patterns so repeating gives psychologists and researchers a well-defined space, as scientist-practitioners (see Barlow, Hayes, & Nelson, 1984), through which we can understand something of personality characteristics, as developmental levels. Loevinger herself had aspirations to develop “a sub-discipline within psychology that inherits some of the wisdom of philosophical psychology, that unites the discoveries of psychoanalytic ego psychology with contemporary stage-type conceptions of personality, and that has its own research methods and sphere of applications” (Loevinger, 1966, p. 433). While STAGES in some ways appears as a continuation within the sub-discipline, aspects of its structure mark it as perhaps something different. One apt characterisation could be,
as a person-perspective construct. We’ll talk more about how the notion of a person-perspective construct might benefit psychology and particularly psychology research methodology, below.

**Ego Development Theory – The Deeper History**

As described above, the roots of STAGES are found in Jane Loevinger’s ego development theory (O’Fallon, 2018, O’Fallon & Barta, 2017). Ego development is described by Loevinger following reflection on psychoanalytically-informed psychology in the following way: “The ego develops as the person works to master his experience; yet what requires to be mastered and what is acceptable to him as effective in mastering depends on ego level” (Loevinger, 1966b, p. 441).

Loevinger articulates an account of ego development abstracted from the work of Sigmund and Anna Freud, stated in Piagetian cognitive development terms, with the idea that interpersonal schemas are internalised into intrapersonal schemas, according to the level of a person’s ego development. Her account is distinguished explicitly from ideas about self-mastery, or self-improvement such as would be found in today’s coaching paradigms, as in Loevinger’s terms such a theory was merely self-referential, just announcing, that ego development does occur (see Loevinger, 1966b, p. 441). Rather, her proposal is that the interpersonal schemas become in some way part of the unconscious apparatus by which a person makes choices in living their lives, which are described by her as “symptoms.”

Loevinger’s (1976) later body of work (see Manners & Durkin, 2001; Loevinger, 1998) extends Harry Stack Sullivan’s (1953) model of ego development as a self-system built via his research with young male schizophrenia sufferers. Sullivan’s model had three components constructed from elements including: a) character development representing the combination of impulse control and moral behaviour; b) conscious preoccupations, including the kinds of things a person orients to in thought; and c) interpersonal style, representing attitudes towards interpersonal relationships. Loevinger (1976) adds a component for cognitive style, which represents the shift from conceptual simplicity to conceptual complexity at later levels. What follows then is an account of ego development that describes progressive redefinition of the self-structure contextualised by the social and physical environment (see Manners & Durkin, 2001).

The ego itself for Loevinger (1976) as conceptualised in ego development theory is a construct held in the minds of researchers that captures the structural unity of personality organisation, where personality is made up of traits\(^2\). Loevinger (1976) refers to ego as the “master trait,” which holds any other possible developmental domain, for example worldview conceptualizations (Perry, 1970), moral development (Kohlberg, 1969, 1981; Piaget, 1932), and interpersonal understanding (Selman, 1980). For Loevinger, while there was an inner logic to the progression of change for personality (Manners & Durkin, 2001; Loevinger, 1976), she did not pursue explication of this inner logic (see Kegan et al., 1998). She maintained to the very end that the sentence completion test methodology provided insight into the function of the self or

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\(^2\) Note that personality psychology as a field remains undecided about whether personality features have qualities that are inflexible over time, such as traits that we are born with, or whether personality is made up of contextualised responses to more immediate situations, which are states, see for example, Steyer et al., 1992)
ego in a way analogous to an immune system, protecting the person and their current frame of reference from experiences of cognitive dissonance or inconsistency (see Loevinger, 1998, p. 352) within a certain environment. It was in a way, less about structure, and more about responsivity to the cultural and social context that the individual found themselves in; emphasizing a paradigm that had been largely unarticulated within psychological research in Loevinger’s era.

**Ego Development - The Relevance of Context and Relationship**

Loevinger’s home for constructs as residing in the minds of psychology researchers, and less so in the immediacy of the lives of persons that make up populations, speaks to an aspect of psychological research often elided - the presence of the researcher as theorist and modeller, or sentence completion test scorer in assessment, in the account of the score that is given for individuals. To be scrupulous about this observation - in the tradition of psychology research journal articles in the broader field of psychology research, the researcher is not included in the report of the statistical outcomes that are offered as the scientific support for the structure of the psychological construct (whether it be a STAGES ego development construct, or something else).

Originally the aim of the omission was an attempt to remove researcher bias from the reporting of research outcomes, such that the study report reflected an unbiased and objective scientific outcome (see Barlow et al., 1984). The technique of not including researcher perspectives is not different from quantitative psychological research more typically of Loevinger’s day, and remains not different from other psychology reports, today. The STAGES approach of leaving out the perspective of the researcher or the scorer is no different, in this respect then, from mainstream psychology. No account of the stance of the researcher is typically articulated, in the reporting of the outcomes of a study. What is more, no systematic account of the commitments of the scorer is made available to a person undergoing a STAGES assessment, where they would be given opportunity to understand for example the different social or cultural positionings that the scorer occupied, to know something about how this might shape the scoring given, in the STAGES outcomes.

This lack of presence of a researcher in quantitative reporting however is very different from reporting techniques in qualitative psychology research today, where an account of the researcher’s perspective is included in enhancement of social trustworthiness and dependability of the research outputs, in terms of evidence in respect of research project validity, for findings (see for example, Shenton, 2004). What we know today, distinct from what perhaps was clear across the field of psychology of Loevinger’s time⁶, is that researcher bias necessarily shapes what is reported in respect of a psychological construct, and also has a role in each decision made about the statistical analyses which provide scientific information about the construct, as well as methodological determinations (see Nowland, unpublished thesis). What this implies is that the most ethical stance that a researcher offers to other practitioners and the broader community, one which reduces the quality uncertainty of results (Vazire, 2017) is one where full

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³ Loevinger’s own work with construct validity however provides some evidence that she herself had clear understanding of the problem.
transparency is adopted, with respect to philosophical commitments, for the construct in question.

The lack of inclusion of researcher perspectives points to a broader concern for the history of personality research, and one that is really relevant to research work that builds on Loevinger’s ego development theory as STAGES does, transmuting the insights by including fixed structural elements with polar facets, as we see in the Matrix. In the era that Loevinger developed her theory, for the purposes of psychological research, there was no well-pronounced differentiation between the social realm and the cultural realm, for psychology, tracked in systematic ways in research methodology. What this meant was that psychological constructs were generally created, and then, replicated, without reference to the context of their development. In the language of STAGES, 4th person-perspective is simply not included in the data, and is barely attended to in the methodology, of psychology research (see for example, Poropat & Corr, 2015). To understand the difference between social, and cultural realms, what is needed is 4th person-perspective.

4th person-perspective is described in Angerer (2018) as “a focus on an observer, observing another observer, observing another self and other(s)” (p. 154). In the STAGES model this is available at 4.0 Pluralist and 4.5 Strategist, respectively. What this would mean was available in the scientific methodology of psychology was a systematised account of say, the ideological stance relevant for the scientist-practitioner who was recording observations about the implications of social and cultural practices implicit in the administration and scoring of a particular test or assessment between a researcher and a participant, such as the sentence completion test structure that is used to assess STAGES. The reason that this is important is that the worldview of someone else, as is proposed to be assessed via the STAGES model, is not assessed ‘from nowhere’ - it is assessed in a series of transactions between a researcher or scorer, and a participant. The meaning that is generated from a sentence completion analysis has to be culturally and socially embedded - the score can come from nowhere else but such a place. To the extent that the researcher or scorer themselves is as culturally and socially embedded as the participant, it would seem beholden on the researcher or scorer to account for this embeddedness in a systematic way which facilitates the interpretation of their score or assessment. The resulting score or assessment is a function of an interaction between the cultural and social backgrounds of each of the stakeholders - the researcher and/or scorer, the model developer, and then also, the participant. It is not peculiar to the participant, alone.

Social systems need to be differentiated from cultural influences, that are relevant to a cultural construct. The reason that this is important is that social systems will have much to do with how we observe a specific psychological phenomena - social systems can influence for example, the conceptualisation of intelligence as a function of an education system, or an attitude as a function of a political system. Social systems also connect to how we calculate something like a score for a psychological construct such as a STAGES score, for example using sophisticated statistical software that may make the method of calculation of the score somewhat obscure, to the person who is completing the psychological assessment. One risk with not including information about the social system is that the extent to which there are social system-determined processes at play in the outcomes seen for an individual assessment is not available, for scrutiny. An articulation of what components of an assessment are social system-relevant seems important for being as
thoughgoing as possible in offering someone a perspective on what is notionally, their own worldview, as is an outcome of a STAGES assessment. 4th person-perspective facilitates the reporting of social system information, insofar as the way that the system interpenetrates with the social situation of the test itself is actually available for reporting.

Cultural systems on the other hand influence what we take into consideration when applying the label for a psychological construct. For example, a Western conceptualisation of the individual-collective binary may be vastly removed from an Eastern conceptualisation of the same phenomenon, where articulations of self-structure in each of these global villages involves different amounts of the presences of other people, in the conceptualisation (see Pauly, 1995). Where we have an Eastern individual completing a Western assessment which is scored by a Western assessor, the nuance that is relevant to the particular meanings of words as found within the originating culture may be largely unavailable to the assessor. Reporting of cultural background, by the model creator, by the assessor, and by the participant, creates the best possible opportunity that what is reported in the assessment actually is relevant to, the individual who is being assessed.

What was not the case in the era of Loevinger’s work, and what we do not yet see in a standardised way for psychology research in our time, is a 4th person-perspective routinely accounted for, either in the methodological structure of a study, or in the records and data that is used, to assess individuals. Both methodology and data are still de-contextualised, with respect to 4th person-perspective. The context of research is consistently left out, of the methodology and data that we work with, in psychology, and psychometric practices relevant to reported outcomes. In the next section we explore some aspects of contexts which seem to be highly relevant to the STAGES matrix, and specifically focus on the relational context of development, with reference to psychoanalysis and the transactional model of development (Sameroff, 2009).

**Context of Ego Development**

In what follows we explore two avenues of enrichment for STAGES with respect to 4th person-perspective considerations. One is the extension of relational psychoanalysis and the transactional model of development that emerged in the decades following Loevinger’s work, the second is looking to methodological advances for psychological and personality research based on the PhD research of the author of the present paper.

What is at stake in any ego development model must have some sort of relation with the autobiographical self, which itself is conjectured to have basis in autobiographical memory, which itself has been demonstrated to be a function of relational and family narratives (Fivush, 2019). More than this, there is a significant body of work in developmental psychology that describes how a life script is a function of a culturally shared schema, which determines how and in what way life events occur (Fivush, 2010). This schema is prescriptive, which means that individuals who deviate from the culturally-shared script are called upon to explain their life story, to account for their trajectory of development in culturally-relevant terms. Even in the upper reaches of development then, there is some constant connection for an individual to other as parent, others as kin, and the collective as social and cultural structures. To articulate something which is universal in its relevance, such as is implied at the broader stages of embrace
(see O’Fallon & Barta, 2017), but which is also able to be understood in a specific social and cultural context, one must rely on the signifiers that are relevant to the people of that society, and culture. We live in a time today where sharp attention is oriented to surface small differences that make a very big difference for the individuals who have inherited specific cultural and societal understandings of certain symbols, and who suffer a type of trauma when atypical understandings are introduced, such as is the case for indigenous communities (see Pauly, 1995; Clancier & Kalmanovitch, 1987). There is an opportunity to reflect, here, on how to represent 4th person-perspective pluralism with deep integrity, as relevant, to this time, and in a way which echoes forward, to future times.

What seems important, in an account of a construct such as STAGES, is a recording of the ideological, social, and cultural context for the individuals who undertake the STAGES assessment, as well as for the researcher or scorer, as referred to above. This is because the data must be interpreted with respect to the intersection of these instances. What is needed, then is an analysis of the ideological, social, and cultural contexts adopted in the STAGES construct, combined (perhaps, correlated), with the ideological, social, and cultural context of the assessed individual(s). What we have then is a more complete picture of what STAGES is able to tell us, about the construct of ego development in a contextualised picture, as it is reflected in the responses of individuals who live out their lives, in contexts. Ultimately what we’re saying here, is that we’re always situated within contexts, and today, we have the technology that facilitates a much clearer picture of how contexts shape human lives. The final section provides some insight as to how to account for contexts using technology, in a coherent and structured methodology for psychology research.

STAGES as Tracking “Meaning Making”

It is clear that there is an absolute essentiality to the encounter with the Other. If there were no encounter with the Other, the reflective dimension of consciousness would somehow remain an inert part of the in-itself. What activates it, what makes it present to itself as what it is, is the fact that another consciousness apprehends it as participating in the being of the Other. (Badiou, 2019, p. 30)

In this section we extend our vision for the evolution of Loevinger’s ego development across the terrain of relational psychoanalysis and a transactional model of development. My understanding of the relational nature of psychological development is informed by work as a psychologist in a trauma clinic for children. The nature of the trauma experienced by the children presenting at the clinic was complex interpersonal trauma; the extent to which there are developmental implications from such trauma experiences is well-established in psychology literature (Streeck-Fischer & van der Kolk, 2000; Putnam, 2006). Research of ecological-transactional models that are relevant to such circumstances demonstrate the relevance of the social world and cultural context of events related to developmental challenges (Lynch & Chichetti, 1998). The intrinsic connection between development and relationship in context cannot be avoided in reference to this body of literature. With this in mind, it would seem that in any account of a construct such as ego development as relevant to children and adults, that the relational structures within which the individual functions are adequately accounted for, in any model of the construct or phenomenon.
In the literature of relational psychoanalysis, Mitchell (1988) proposes that, in founding psychoanalysis, Freud established the wrong unit of study for psyche, by orienting to individual minds. The more apt unit of analysis according to Mitchell (1988), is the relational or interactional field. This is particularly the case when we come to consider aspects of adult meaning-making in the context of a construct such as ego development. From our earliest days, we are continually in interaction with others and our environments, and our transactions shape us as we shape our relationships, and social and cultural contexts (Sameroff, 2009). Our experience is built from these elements, and our meaning is a reflection of the sets of correlations that occur for us as beings with the environments, societies and cultures we experience ourselves within. Nature and nurture are not dichotomous in this view, and social relations themselves, experienced through time by autobiographical selves, can be understood as shaping what come to be expressed in sentence stem responses that can be encoded as an ego development level - whatever the model of development that is at hand. The basis of experience in physiology means that different modes of expression are entirely possible beyond verbal language - an account of social relations makes possible an analysis of a developmental trajectory that is not merely founded in verbal report. De Waal (2009) notes that ethics emerge from the ability of mammals to relate to one another. Co-operation, familiarity, emotional connection and resonance all are qualities that emerge in relationship that do not in and of themselves depend on linguistic ability. We may need an understanding of fully evolved consciousness that does not rely on human linguistic skillsets, to evaluate the true universality of later perspectives. But what we can say is that there would be no development of these capabilities without transactions in a social and cultural context.

The import of the suggestion above about correlating fourth-person information for both the assessor or researcher, and the individual who is assessed is made clear in a quote from Mitchell (1988):

Meaning is inherent in man’s physiology, his biological equipment. Thus, the individual mind has a priori content, which seeks expression within the larger social environment, either in absorbing the culture, in learning public rather than a private language, or in taming and channeling drives. For relational-model theorists, as for the modern anthropologist and modern linguist, the individual mind is a product of as well as an interactive participant in the cultural, linguistic matrix within which it comes into being. Meaning is not provided a priori, but derives from the relational matrix. (p. 19)

Mitchell includes this, from Eagleton: “[o]ur experience as individuals is social to its roots; for there can be no such thing as a private language, and to imagine a language is to imagine a whole form of social life” (Eagleton, 1983, p. 60).

The relational model has something to say about how repeating patterns such as the ones featured in STAGES come to be part of human life:

The relational model rests on the premise that the repetitive patterns within human experience are not derived, as in the drive model, from pursuing gratification of inherent pressures and pleasures ... but from a pervasive tendency to preserve the continuity, connections, and familiarity of one’s personal, interactional, world. There is a powerful
need to preserve an abiding sense of oneself as associated with, positioned in terms of, related to, a matrix of other people, in terms of actual transactions as well as internal presences. (Mitchell, 1988, p. 33)

The addition to the STAGES Matrix that is suggested via reflection on the relational model is one where the space between the individual and their broadening yet more intricate appreciation of the social context is nurtured. Relation can be mapped by model design, looking to the physiological basis of functioning. Relatedness can be mapped by constructs that assess intent, which orients more to the motivations of the individual, including for example, the motivation to hold some form of social contract to complete a sentence completion test. Relationality can be mapped finally by implication, where some proxy construct provides information about relational features - for example using person-perspectives, to map an individual’s understanding of relationships (see Mitchell, 1988, pp. 33-35). What is important about a relational model is that you cannot logically account for the relationship, without accounting for the characteristics both nodes via which any relationship comes into being.

For human individuals, our existences are defined by the relationships we find ourselves inhabiting or are embedded within, as well as the relationships we may verbalise in a sentence-completion response. If variation in sentence completion responses can be in part mapped by changes in social, cultural and environmental changes, these nodes deserve representation of some sort, in perhaps some broader matrix within which the STAGES Matrix sits (see next section). It may eventually become very important to conduct such mapping as our environment begins to rapidly change, producing rapid social and cultural change, with it. Certainly our shared experiences with bushfires in my home country of Australia (in the summer of 2019) have lent us an understanding of the need for adaptive, reflexive environmental responsivity, enacted at all levels of the collective. In evolutionary psychology terms, for example, we know that imitation in a social ecology relies on both creating resemblances between beings but also on the availability of other mental representations which are shaped and limited by interaction with other cognitive systems and the environment (see Russon et al. 1998). To speak beyond the limits of what our earthly environment may present (see Cook et al., 2016), from meditative traditions we can also understand that the realisation of “suchness”, for example, makes available to the meditator “the ability to see oneself and all other things of the world with “perfect clarity” just as they are in the context of their relations with one another” (Huntington & Wangchen, 1989, p. 82). What this hints at is that the highest realisations make available clear, precise and responsive relational data, and nothing else.

Musings on Methodology and Models, for STAGES

I have some of the same misgivings about reducing the variegated, multifaceted nature of personality development to a single continuum with a handful of milestones that Loevinger expresses. . . it reduces in a manner unwarranted by reality the complexity of personality. I wish personality development were as simple as that. (Jackson, 1993, p. 33)

As pointed out in section 2.0 above, the lack of an account of the perspective of the researcher is one of the features of psychology research, and STAGES as a model and as an assessment appears no different in this regard. This poses some amount of risk for a developmental model
which intends to be universal in its application, as O’Fallon (2018) indicates with the proposed articulation of structure by which sentence completion content can be assessed, in the STAGES matrix. It is understood in academic, but perhaps not yet broader circles, that scholars typically assume their own experiences in their contemporary culture as a baseline for deviant and normal development (Pauly, 1995). This can result in mistaken interpretations and assumptions, in the shared space between the researcher and the participant. It has been noted in academic literature for example that other cultures do not load adverse childhood experiences into their accounts of problems in dealing with life troubles or later-life developmental pauses (Hillman & Ventura, 1992). Also noted in the literature is the sense that not all childhoods produce the same social and environmental interactions, they cannot be presumed as similar (Narvaez, 2019). Perspectives matter, when it comes to inferences about the content of sentence completion test responses - no matter the extent of confirmation of inter-rater reliability. These perspectives are formulated within lives that are socially and culturally embedded, and which may not have much coincidence in view, even at higher levels of realisation where universals may be much more apparent in the responses provided by the participant.

For the Future

Such a proposal as the one made in the last sentence of the previous section returns us to the possibility of combining 4th person-perspective data from the researcher, and 4th person-perspective data from the individual. A recent research thesis from the present author worked to found a framework within which reporting of outcomes from psychometric analyses could be contextualised in light of disclosure from researchers regarding their ideological commitments, and social and cultural perspectives, as well as methodological assumptions. In the thesis this is argued as vital, as it is impossible to produce outcomes from statistical analyses of psychological constructs without subjective biases entering into the sets of decisions that are functional to producing such statistical analyses (see also Nowland, Beath, & Boag, 2019). Such biases may include for example beliefs about whether psychological constructs are measurable on a continuous ratio scale structure, as is necessary in performing Rasch analyses (see Murray, this issue). Collection of detailed 4th person-perspective data from the researcher and from the individual regarding, for example, the individual’s experience of sensory differences, or distinct cultural, social, and environmental ecologies renders the data collected in the name of ego development interpretable in new ways. Nowland (unpublished thesis) proposed a set-theoretical structure to report such information, given that mathematical set theory is the most universal of mathematical languages, and that it maximised the opportunity to articulate something about the trustworthiness of the research outcome in qualitative terms, or in this case, the proposed STAGES level, for an individual who completes a sentence completion test. What was argued for was a network structure facilitating inference from the best systematisation, overcoming a number of limits associated with the 20th-century vanguard of inference to the best explanation. Ultimately what can be imagined with a coherent systematised collection of such data is a refinement of the STAGES model in light of new clarity with regards to how relationships, experienced by individuals, shape a shared space for perspective-taking, in all its possible guises. Modelling STAGES in this conceptual framework may have reflexive gains, as the conceptual framework is re-shaped with a vision of 4th person-perspectives, and as STAGES itself becomes thus also, changed. Inspiration may be derived from Varey (2015):
The formation of coherence generates a set of relational tensions. The continuation in a direction enables a feature of reliance in a set of coactions. The reciprocal tensions of coactions become locational around contributive relations. These locations of reciprocity become reliable as potentials for generativity. The recurrence of potentials enables future potentials as probable possibilities. The entrainments of the future potentials set the conditions for the formation of new coherences. This generative process is seen as contextually dependent, multidimensional and self-generative. The hypothesis formed is: The praxis of being enables future becomings. (p. 15)

References


Appendix: Loevinger’s Characteristics of Level of Ego Development

<table>
<thead>
<tr>
<th>Level</th>
<th>Code</th>
<th>Impulse Control</th>
<th>Interpersonal Mode</th>
<th>Conscious Preoccupations</th>
<th>Cognitive Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impulsive</td>
<td>E2 (I-2)</td>
<td>Impulsive</td>
<td>Egocentric, dependent</td>
<td>Bodily feelings</td>
<td>Stereotyping, conceptual confusion</td>
</tr>
<tr>
<td>Self-Protective</td>
<td>E3 (Delta)</td>
<td>Opportunistic</td>
<td>Manipulative, wary</td>
<td>&quot;Trouble &quot; control</td>
<td>See above</td>
</tr>
<tr>
<td>Conformist</td>
<td>E4 (I-3)</td>
<td>Respect for rules</td>
<td>Cooperative, loyal</td>
<td>Appearances, behavior</td>
<td>Conceptual simplicity, stereotypes, clichés</td>
</tr>
<tr>
<td>Self-Aware</td>
<td>E5 (I-3/4)</td>
<td>Exceptions allowable</td>
<td>Helpful, self-aware</td>
<td>Feelings, problems, adjustment</td>
<td>Multiplicity</td>
</tr>
<tr>
<td>Conscientious</td>
<td>E6 (I-4)</td>
<td>Self-evaluated standards, self-critical</td>
<td>Intense, responsible</td>
<td>Motives, traits, achievements</td>
<td>Conceptual complexity, idea of patterning</td>
</tr>
<tr>
<td>Individualistic</td>
<td>E7 (I-4/5)</td>
<td>Tolerant</td>
<td>Mutual</td>
<td>Individuality, development, roles</td>
<td>Distinction of process and outcome</td>
</tr>
<tr>
<td>Autonomous</td>
<td>E8 (I-5)</td>
<td>Coping with conflict</td>
<td>Interdependent</td>
<td>Self-fulfillment, psychological causation</td>
<td>Increased conceptual complexity, complex patterns, tolerance for ambiguity, broad scope, objectivity</td>
</tr>
<tr>
<td>Integrated</td>
<td>E9 (I-6)</td>
<td>Cherishing individuality</td>
<td>Identity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Deconstructing Developmental Constructs: A Conversation

Thomas Jordan¹ and Tom Murray²

Thomas Jordan has been a valuable appreciative critic of the STAGES model and of ego development models in general. In his publications over many years he describes a variety of skill sets important to higher level adult development, for skillful dialog and deliberation, and for dealing with the complex ("wicked") problems that our society faces. What follows is an edited and cleaned up version of a series of email exchanges between Thomas and Tom Murray. We initiated this dialogue in early 2019 with the hope that it could be turned into something publishable in this special issue. Our only guideline was that we tried to end each segment with a question. Murray posted the first question. We have added section headings post-hoc to help organize the conversation.

Note that subsequent to this email exchange, Thomas and Terri O'Fallon had a videoconference conversation about her model, which has been transcribed and is available at: http://www.perspectus.se/tj/ConversationOFallonJordan.pdf.

A. Differentiating Developmental Theories

TM: What do you see are some of the dangers or drawbacks of developmental models such as Kegan's, Cook-Greuter's, and O'Fallon's, that describe a single developmental construct or trajectory that is supposed to capture many aspects of human meaning-making (as opposed to models with multiple "lines" of development)?

TJ: The most immediate problem I see is related to the conception of late stages of development. I have followed research and theory building in the ego development and hierarchical complexity fields for several decades now. I believe that there is a fair measure of correlation between levels of cognitive complexity, in the social and

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psychological domains, and stages of ego development in the preconventional and conventional parts of the spectrum, and maybe also in the early postconventional stage. However, I think that what is really significant about late postconventional, and even more transpersonal, stages cannot be explained by increasing complexity and levels of abstraction of mental representations. There is a quite different dimension of development that has to do with noticing internal processes and gradually disidentifying with the thoughts, emotions, desires and other goings-on in the mind and the body, giving rise to an increasingly strong capability for witnessing.

I am sure that the patterns described by O’Fallon’s framework do exist, and maybe the stage sequence she describes is the most common pattern for people who reach the later stages. But I believe it can be misleading and confusing to use a framework that assumes that there is a single line of development that accounts for all transformative shifts in adult development. I believe a person can be capable of very complex cognitive operations without having much of a capacity for witnessing the self’s processes. And conversely, I believe that a person can have a well-developed capacity for witnessing internal processes without having a capacity for or habit of constructing meaning in very complex ways. (For example, see Jordan (2011, 2018) in the References). I find the ego development frameworks you mention very meaningful as heuristic devices, but I think that they should not be taken too seriously.

I have a hard time believing that a framework that posits a single line stage sequence, which the STAGES model seems to do, can adequately represent the variability in how people evolve in their capacity for handling complexity as described by theories of hierarchical complexity (Commons, Fischer, Dawson and others) on the one hand, and their ability to witness the constructed nature of their experience on the other hand. What do you see is the relationship?

TM: I think this is a really important inquiry, and I confer with your concerns and probably with many of your opinions about the later levels. Regarding the role of different theories, first I will say that I put Kegan's theory of meaning making maturity in the same boat as the ego development theories – Kegan implies in his writing that they are very similar constructs (with different measurement methods; cutting up the same developmental spectrum in different ways). Let’s call it meaning-making (MM) for now (ego development for Loevinger; and O'Fallon sometimes calls it "perspective taking" levels). I will also use CC as shorthand for cognitive complexity (i.e. hierarchical complexity) – so what is the relationship between MM and CC? – that seems a central question for us.

Speaking theoretically, putting aside the empirical correlations for a moment, I see two key differences between MM theories and theories of CC development in the hierarchical complexity tradition (HCTs).3 One is that MM theories map what happens when you take cognitive complexity (CC) and turn it inwards to understand the world of

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3 I am framing some of this from the perspective of the model I am developing on "Wisdom Skills," which draws heavily on Terri's STAGES model but is also influenced by Bonnitta Roy, the neo-Piagetian models (Fischer, Commons, Dawson).
I/my/you/we/our/them/their – i.e. the everything that is not an "it" (social, emotional, and self skills). (I hesitate to call this "interiors" because it does not quite capture it – but it is close Wilber's "LH side.") Lets call it the domain of the "ego-involved" – i.e. all occurrence or proposition that are emotionally tied to "me" – which includes relationships to me, as in my, you/our, we/us, they/them; all of which are ego-involved because they are defined in relationship to, and often in tension with, the self.

The second difference is that MM theories incorporate aspects of unlearning as well as growth (learning) in hierarchical complexity. Despite the common idea that the developmental arc starts with building the ego and then moves to deconstructing the ego (which does contain a lot of truth), I think ego development has moments of unlearning all the way up – something must be let go of and transformed at each major fulcrum. The two moves are related, one turns CC toward the self; then one does the subject-object move of seeing some new aspect of the self, and then, for ego development to happen, one "sees through" that old pattern and releases or re-contextualizes it (this picture is missing an important element having to do with state-stages but I'm skipping that for now). Unlearning is related to shadow work and contemplative practice – with deconstruction, de-centering, healing etc.; and (I say more about this in the Wisdom Skills work) in the unlearning one re-claims or re-members something that was always true about the self that one had hidden from the self.

This turn inward is related to Wilber's notion that "the cognitive line leads" – since CC is generally built up in learning about the exterior world first. This is built into the STAGES model that posits that learning generally happens with exteriors before interiors.4 For example, one learns about the concepts "angry" (concrete) or "prejudice" (abstract/subtle) first when adults point to it in others – the first step is to recognize it "out there." Only later does the child realize, oh! "I am angry" or "I am prejudiced" (which can instigate deconstruction of some narcissistic belief, i.e. an ego growth).

An important piece here is that certain aspects of the interior (or the self) are more complex than others. So one can't really grasp them until one has built up enough CC. The CC is usually first developed in reference to exteriors because that is usually a safer context in that it does not threaten to destabilize the self. Also, seeing things outside the self is more concrete, vs. interiors are more subtle. For example, understanding that "I can do bad things while not being a bad person" is a big step for a child; it requires a certain level of complexity (differentiation and integration of certain concepts), and until that happens the child will have an ego structure compelled lie about her socially unacceptable behaviors. At an even more complex level, to see the self-structure as a

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4 Interior/exterior, the fourth parameter in the STAGES model, is not as often mentioned as the other three: Tier, individual/collective, and active/passive. The stage is defined by the primary three parameters. The fourth parameter helps determine early/late within a stage, but this level of granularity is not used in our statistical studies, and unlike the other parameters, we have no empirical evidence as yet about the validity of that part of the model. But the principle of exterior before interior coordinates with other psychological theories (and see Mark Forman (2012): “All the stages of identity development, therefore rely on different forms of outer-directed cognition eventually being used in the inner world of the self” (p. 80).
collection of interacting drives/voices (or, even more complex, sub-personalities) allows the ego to mature, or move closer to what we might call spirituality (or complex ethics). The ability to see "systems" of this complexity (first in exteriors) is a prerequisite to developing this type of self-knowledge.

Does this notion of unlearning relate to your understanding of the nature of adult development?

**B. Shadow, Developmental Tiers, and Spin-outs**

**TJ:** I have not thought about that angle, it certainly seems worth considering. And it could possibly make for an interesting dialog with adherents of the hierarchical complexity theories on adult development, since the conception of stepwise processes of differentiation and integration on higher levels of complexity is not well suited to account for what you call unlearning. So please go on elaborating how you see the relationships between unlearning, shadow, ego development and cognitive complexity.

**TM:** Terri (and Kim Barta) use the concept of shadow and healthy horizontal development to account for some of this. That is, ego development level shows something about one's capacity to understand shadow material and the deeper self in more complex ways, but it does not say whether one uses that capacity to heal their shadow and do the hard work. As we all know, you can reach late levels of ego development (based on the assessment) and still have a lot of shadow. No one as far as I know has a good assessment for shadow (of course we would need to define shadow better) – that is another area at our community's leading edge. This relates to what I said before RE one difference between HCT and ego development is that the later is better able to theorize about shadow work.

Terri, and especially Kim, use the STAGES model to talk not only about growth, but to identify the developmental level associated with shadow elements. Horizontal health (what Kim calls full "surface area") at each foundational level is more important than how "high you climb." In a similar way, I think what advanced contemplative practice is doing is deconstructing assumptions that are so deep in the psyche that they are the basis of our perceptual constructions of time and space (and self) that formed in infancy. Psychotherapy deconstructs developmental phenomena like attachment dynamics, usually from the first few years, and contemplative practices target even earlier development like basic sense of self, time, body boundaries, the subject-object split, etc.

So MM (ego) development is about the growth of CC in a particular domain – the self. MM development and CC development should correlate empirically because MM relies on CC (that is, increasing complexity contributed to increasing ego development, but ego development is more than that). MM development seems better equipped than to talk about (1) the phenomenology and nuanced of self-growth, (2) shadow-work and de-centering; and (3) the more spiritual, esoteric, and state-based aspects of later level ego development. HCTs are tuned to talk about the mechanisms of building complexity in any domain, and when applied to some domains include movements of reflective abstraction (self-knowing); but they are weak in talking about the unlearning moves that
are so essential to ego development. Ego development, on the other hand, is weaker on
describing the precise cognitive mechanisms of building complexity. It does include
unlearning in its understanding of growth, but neither of the theories has a very solid
model of unlearning. Unlearning is better covered in theories of psychotherapy and
contemplative practice, but in general mechanisms of unlearning are not as well
understood as mechanisms of learning. I think the challenge of bringing all of these
together is at the leading edge of our theories.

As you imply, the MM assessments don't explicitly separate out the complexity of "out
there" objective content from ego-involved (more interior) growth. Do you know of
studies that empirically study the correlation the various aspects of development we are
talking about?

TJ: Unfortunately, there is very little empirical research that tests whether different aspects of
adult development, such as hierarchical complexity, ego development stages and self-
awareness are strongly correlated or not. The few studies I know of have very small
sample sizes and have methodological problems. It would be very interesting to see what
happens if a reasonably large number of persons were tested with 3-4 different types of
tests: sentence completion tests, analysis of complexity levels in spoken or written
discourse, performance in tasks that require high levels of cognitive complexity and
something like Kegan’s subject-object interviews, but developed to look for advanced
forms of self-awareness, witnessing and ego transcendence.

I do not advocate scrapping ego stage frameworks in favor of only operating with
multiple lines, but I would like to see more recognition among theorists that there is a
large variability in the late forms of adult development. I look forward to the publishing
of far more empirical data and richly described case examples from those who use the
STAGES framework. So my question would be what reasons you have for believing in
the validity of using a linear sequence of stages that positions the transpersonal stages on
top of the most sophisticated postconventional stages?

TM: Totally Thomas – the empirical evidence on all this is insufficient and we need lots more.
RE whether the transpersonal capacities follow directly after the cognitively sophisticated
postconventional stages...I think I agree that it does not have to (it depends on the
meanings of these terms of course). One aspect of Fisher's (and Dawson's) model that I
like, that Commons' model does not have, is the idea of increasing levels of abstract
object types (sensorimotor, representations, abstractions, principles), and within each
such "tier" there is increasing complexity (single objects, object relationships, systems,
new wholes). The STAGES model has this same kind of structure. (You speak to this in
your 2018 paper).

TJ: Is Terri's "subtle" tier really the same as Fischer's/Dawson's abstract tier, or are there
differences? I would also ask how the Metaware objects represent an advance that
directly builds on the abstract tier.
TM: We don't have much empirical evidence on how they correlate yet, but theoretically, the STAGES 3.0/Expert maps to Commons "Abstract" and to Fischer/Dawson's "9. Single Abstractions." "9-Single Abstractions (Abstract), 10. Abstract Mappings (Formal), 11. Abstract Systems (Systematic) maps to STAGES 3.0/Expert, 3.5/Achiever, and 4.0/Pluralist (completing the STAGES subtle tier we have 4.5/Strategist, which maps to "12. Single Principles (Meta-systematic)."

But that is not the whole story. As I mentioned, the Fischer/Dawson/Commons models only measure CC, while MM requires CC applied to the inter/intra-subjective domain, so you can be high on CC and not have the equivalent MM stage if you don't apply the CC self-reflectively. So the models diverge in that way.

RE the metaware tier: I think at each tier there is a whole new emergent set of phenomena, so it does not build in the same way. For example, formal operations jump into a world of abstractions that are not a straight continuation of what is going on in the concrete tier. One can continue getting more hyper-complex with concrete reality, and not develop abstract thought. Yet abstract thought requires concrete thought.

Given that CC growth is necessary but not sufficient for MM growth, the CC of understanding the exterior world can increase indefinitely without necessarily applying it to those realms of experience that tug on (threaten or create dissonance with) the ego. I, my, you, us, ours, they, theirs — this is the realm where the ego has its attachments and aversions and blind spots. Ego defenses keep us (all of us!) from applying our CC from knowing certain "truths." (You know all this, I am just building up an argument here).

Terri talks about a pattern she calls horizontal "spin out" which happens at the top of any person perspective (PP) — one can keep getting more and more complex and not grow in terms of ego development. So I would hypothesize that there is some minimal level of complexity needed to robustly understand some aspect of I/us/they. The minimum is necessary but not sufficient; and more than the minimum will deepen I/us/they insight; but there may be diminishing returns so that beyond a certain point it may not add to development very much and more complexity so it spins out horizontally.

For example, at the concrete level (2nd PP in STAGES) one can understand and create super complicated mechanical devices (like a genius mechanical engineer) but still not have developed much abstract thinking (a 2.5 spin-out). With abstractions and hypothetical thinking (3rd PP in STAGES) one can develop super complex scientific, philosophical, or technological ideas, but they may still be linear in the Newtonian sense, may still have that "there is one best answer" feeling, and not move into groking the realities of mutual-dependence, feedback loops, ecosystems, fractal structures, etc. The interdependence, fractals, and comfort with multi-perspectives characterize 4thPP thinking. Terri also points out that from 4th PP you can spin out into super-complex "systems of systems of systems..." (at 4.5) without getting into the space of more emptiness-of-self and construct awareness of the Metaware tier.
We don't have to be wedded to the STAGES levels, but this idea that complexity can increase and spin out horizontally without creating the next level of hierarchical ego development is very useful.

Does that relate to your question?

**C. Questioning Holistic/Wide Lines vs. Specific Skills**

**TJ:** In part, but I still believe that the whole ego development theory tradition rests quite heavily on the assumption that there is something like an ego as a "structured whole", and that it therefore makes sense to talk in terms of, for example, a "center of gravity". Theo Dawson maintains that this is an erroneous assumption, given the empirical fact that people display different levels of complexity when grappling with tasks in different domains. But Theo belongs, I believe, to the scholars who are strongly convinced that levels of complexity is the one and only significant variable explaining different patterns of adult development. If you believe this, and you know from empirical studies that individuals' performance in terms of complexity varies significantly in different domains and under different situational conditions, it follows logically that the notion of ego development stages must be untenable. Of course, ego development theorists don't accept that interpretation of the nature of adult development. You specifically address this issue elsewhere. However, even if you don't accept the premise that adult development is only a matter of cognitive complexity, it would be a good thing if you and other ego development theorists can address this kind of criticism and provide sustainable arguments for the idea of the ego as a structured whole.

**TM:** These are really valid concerns. Ego development (and Kegan's MM system) is what I call a "wide" developmental line – Loevinger called it a "holistic" construct, in contrast with the narrower lines or constructs of other theories. It is an ongoing issue RE whether wide lines are legit. The MM (ego) developmental construct overlaps with, i.e. includes or correlates with, many other constructs or "lines," including spiritual intelligence, reflective abstraction, leadership maturity, social-emotional skill, self-control, self-understanding, etc.5

In one sense, the argument can be answered statistically/psychometrically. The ego development measurement has shown itself to grow "as a whole." When looking for component sub-lines in ego development data of large(ish) populations, there is a consistent finding of no sub-lines being found (in a factor/component analysis it "loads on a single factor" – as found repeatedly in studies). But that may not be a satisfactory answer because that type of analysis assumes that different subskills might be captured by different items in an assessment; but in a sentence completion test all of the items tend to be looking for the same things; or better said, the scoring method scores them all the same way (in all MM theories). The scoring methods in STAGES don't ask the scorer to note specific sub-skills (though it allows for, but does not require, recording the

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5 More on that topic in Murray (2017) here in sections "On multiple intelligences and wide vs. narrow skills" and "One skill to rule them all – is ego development one thing?"
"quadrant" – I, we, it, its – of the text). So the data does not exist to factor out the subskills, and it would probably be expensive to re-score (though possible and a valuable study).

Loevinger takes the assumption that there is "master trait" of "personality…a holistic process, a striving for meaning and self-consistency over time," (a habitual organizing frame of reference) "[that] involves many dimensions of personality development". Even among Loevinger's followers there is controversy about whether it is one underlying capacity or a collection of sub-capacities.

So a big question in the developmental field is whether specifying narrow vs. wide skills/lines has construct validity or "ecological validity" – i.e. whether they can be said to really exist in a form that can be measured. The HCT theorists would critique ego development as a super vague fuzzy construct--something one can't really even define in a short space. This has been used to argue that wide lines are not valid. But I think I can use HCT to argue for (some) wide lines in the following way (as I have done in Murray, 2017).

Fischer and Commons are clear that any developmental "skill" must be defined in relation to a real task. I have argued in some of my papers (Murray, 2019) that you can't find real life tasks that just use, say, "abstraction" or "creative thinking" but that these sub-skills are always an inseparable part of real tasks (like parenting, doing good at work, making friends, etc.), so HCT actually predicts that when real-life has only wide-tasks its just as hard to measure narrow skills as wide skills. When the sub-skills are massively interacting, you can't "see" them individually. One can invent separate constructs like "critical thinking" and "creativity" and create a test, a fake task, to measure them, and then look for correlations between those constructs. But do those constructs really exist? Playing a musical instrument, or playing sports, or foraging for food, or finding a mate, are real tasks they hardly overlap as tasks, so you can define and measure real solid independent skills based on them. But there is no "self-understanding" task, rather self-understanding is an abstract construct we can see used across many real life tasks. Some would say, "that construct exists for many tasks so its a 'general higher order skill'! – that should make it very important and also easier to measure." But my reading of HCT implies that you can't infer in that direction – you can only define the complexity of a task, and the skill is the ability to do that task.

I am unsure about all this though. If one can identify a generic sub-skill (or micro-skill) that is a component of many tasks and super-skills, it seems important to study and measure it. I'm just not sure if all such skills are arbitrary abstract inventions unconnected with underlying cognitive mechanisms (brain studies might help answer that). Ego development is one such made-up construct of course – a "wide" one. What I am wondering about is whether the narrower ones are actually taking one further from reality into speculation, even though they seem to be honing in more closely to the underlying mechanisms. Like Ptolemy's epicycles, one can use abstract reasoning to find detailed

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6 From p. 229 of Jespersen et al. (2013).
patterns that explain phenomena, but which are not actually related to causal mechanisms.

Actually, it could be argued that STAGES, in contrast with Loevinger and Cook-Greuter's models, is not at all fuzzy in defining the construct. For Loevinger and Cook-Greuter the stage definitions, in a sense, change with each level. Something grows, but what that is cannot be clearly defined in those models. STAGES "defines" each stage simply using three parameters. But still, determining the value of each of those 3 parameters requires a detailed scoring manual and a year of training. You can say each stage can be given a concise definition using the three parameters, but to operationally define each of the three parameters (in a specific way) is pretty complex (so it kicks the can to the next level down).

No one is claiming that all of human psychological maturity or cognitive complexity can be captured in one assessment or model (though the neo-Piagetian theorist do claim that all cognitive development can be captured by one mechanism and structural logic). And of course we all acknowledge that it is absurd and dangerous to assume that any person can be well described with one measurement or category. MM, as described by Kegan and the Loevinger tradition, seems to make a lot of sense to a lot of people, so I think if one had to pick just one measurement, MM would be adequate. But if we were going to assess multiple things, what should we include? As you know, there are so many assessments and constructs out there in academia. Do you have ideas for what would work better?

TJ: RE: "HCT implies that you can't infer in that direction – you can only define the complexity of a task, and the skill is the ability to do that task" – this deals with very interesting issues that would warrant a thorough scrutiny. I believe you are on to something valid, that there are indeed some "general" tasks that have wide and pervasive implications for how a person makes sense of him-/herself and the (social) world.

Regarding your final point, I think there is a lot of empirical research to do. In my 2018 Integral Review paper, I argue that there are several quite distinct components of adult development that don't necessarily walk in step on a developmental stairs. I briefly describe cognitive complexity, complexity awareness, construct awareness, perspective awareness, self-awareness, meta-awareness and the phenomenon of spiritual awakening. It is an empirical question to what extent the developmental patterns of these components are closely correlated or not. My concerns regarding ego development frameworks is that they seem to assume that there is a single developmental trajectory, and I believe this to be misleading, or at least not proven.

I think in the paper I make a good argument that such competencies can develop quite independently. My argument is not based on empirical research results, because we don't have much of that yet, but describes types of people that have various mixes (weak and strong) of these skills.
Do you agree that it can be an unproductive or misleading thing to try to pack all of these types of capacities into one developmental line?

**TM:** Yes, it can be. Professionals who use MM assessments are (usually) careful to make sure they are not abused to label people into categories and make high-staked decisions (like hiring/firing). The intent is to use them to support self-reflection and mutual understanding (at individual and team levels). If used well, nobody is forced to agree with their scoring – they are taught about developmental levels and invited to reflect upon how their own strengths and challenges line up with the sequence of growth the theory describes. Anecdotal evidence is that most people feel quite "seen" and gain some insight when coaches/consultants use these assessments. But I'm sure there are counter-cases to that. But in working "on the ground" with people I expect that many people would be confused if they were shown the results of 3 or 4 tests that then had to be coordinated in some complex way by the coach/consultant.

MM frameworks, like the one presented in Kegan's "In Over Our Heads", seem to add so much to our general understanding of the human condition, by just getting people to think about the developmental dimension. People naturally want to place themselves at some chapter in this story of human growth. On the other hand, we both know of the dangers and overshoots of consultants and pundits overgeneralizing based on these models.

Is that a fair description of the trade-offs?

**TJ:** A similar argument could be made (with some justification) for personality typologies, such as the Myers-Briggs Type Indicator, the Enneagram types, or even astrology. They can scaffold a process of self-reflection and insight. But that is a rather different thing than claiming the model in question adequately represent how people actually work. My main interest here is in the science of figuring out what late stage development really is (and isn't). Our world needs more wisdom, cognitive complexity, compassion, and perspective taking – we need to better understand what these things are and how to support them.

I still believe that it makes sense to be careful about collapsing increasing complexity/increasing abstraction of concepts with witnessing capabilities into one stage sequence. At least I believe that when operating with models like the STAGES framework, you should take care to point out that people in real life vary far more in those different dimensions than can be represented using single line stage models.

Are you arguing that from a theoretical perspective, it is defensible to lump together the different lines or components of development?

**TM:** Good, we can separate the pragmatics of assessment for coaching and organizational development from assessment for more rigorous and scientific inquiry into human potentials (understanding that there will be some overlap between them).
Any theory that uses simple categories or linear sequencing to describe the human condition is problematic. And one can always break up a phenomenon into subprocesses, ad-infinitum. E.g. one can define 8 elements of "reason" or "wisdom" – let’s say one is "perspective taking." Then you can find a theorist who has broken perspective taking into 5 more facets (in both theory and measurement); and for each one of those facets you can probably find another who has broken it down even finer. All of these conceptual "cuts" are rather arbitrary, and have fuzzy overlap, and there are diminishing returns with increasing specificity in the "human sciences." Often, the more specific the skill, the more artificial is the assessment task or instrument assessing it. So the question becomes pragmatic as well as theoretical: what is the appropriate level of granularity for any purpose?

These subskills are hard to define precisely because they seem to overlap (as constructs) and influence each other (as processes) – e.g. "critical thinking" has significant overlap with "self reflection" – we can create separate tests for each of these but are they really such separate skills "in the brain" (or in behavior)? – or better, to what degree are they separate? MM theories (Loevinger and Kegan) make the assumption that a bunch of these sub-skills are so tightly interrelated that they tend on average to grow together and form a kind of gestalt phenomena (while obviously per individual there are differences in how they track with each other). I am pretty sure that this hypothesis will not be "proven right or wrong" but rather we can (and should) empirically determine how much the factors correlate and influence each other. This is your question I believe, and it deserves empirical study. But in addition to whatever the empirical findings say, one still must grapple with the ontological question of whether and how the constructs are actually separate processes or human attempts to break up a continuous field of phenomena into arbitrary chunks.

In terms of your list of six high level capacities (I had to go back to your article to refresh my memory) – in theory I like the idea of breaking it down to look at sub-components, but there seems to be a lot of possible overlap and cross-influence in these six categories. The question of whether sub-skills are separate-but-correlated, or whether one can be described as a "component" of another, is really hard to answer (this is related to ego development having a much less than 0.5 correlation with IQ – see Cohn & Westenberg, (2004); but here brain science might help answer the question).

It would take some work to get to a place where your constructs were well-defined as fairly independent skills, which then had a measurement protocol for (or all or any subset of the six). Loevinger struggled with this in coming up with what she eventually called the "master trait" of ego development. This is how Manners describes it: "an increasingly complex synthesis of impulse control, conscious preoccupations, cognitive complexity, and interpersonal style" – a list to which others have added: motives for behavior, moral reasoning, character development, and self-concept. Wow, what a long list of diverse skills. Its amazing that anyone tried to combine them into one construct and "got away with it" – yet 100's of studies have indicated that the construct is sound psychometrically.
TJ: Up to mid-postconventional, yes ... Still, my questioning concerns the highest stages, and I argue that it is completely misleading to correlate Commons paradigmatic and cross-paradigmatic stages with the (half hypothetical) very highest stages of ego development.

TM: Ah, yes – sorry I was not clear on this earlier. Though you will see these correlation tables mapping one theory to another (Loevinger, Commons, Fischer, Kegan, Wilber, Aurobindo, Piaget, Graves, Kohlberg, etc.) in countless papers in our community, they are mostly misleading, especially those that map a MM model to a CC model. Theories of CC are more valid in this mapping, as they are trying to measure the CC alone of various constructs, which is a central aspect of them, but, I would argue, does not capture the entire phenomenon. The discovery that CC is a rigorous and valid metric for all of them is very important, but some make the mistake of assuming it explains the entire phenomenon. Those in the Loevinger tradition (including papers by Susanne, Terri, and I) do include these types of concordance tables, which is misleading – you are right. They basically say that the CC aspect of MM maps as indicated. As described above, one can have a horizontal "spin out" and increase CC without increasing MM, so Terri is explicitly saying that they don't map completely, and diverge in this way. We do have some evidence that Metaware meaning-making includes 4.5/Strategist cognition (within the STAGES model), but we don't have much evidence on whether Metaware (5.0...6.5) meaning-making includes "12. single principles" or "13. paradigmatic" cognition. I agree with your suspicion that they may not correlate well, but am not sure what Terri would say.

Maybe it is just that all of these sub-components are so tightly interwoven that one could have taken any of them as the master trait and get the same type of results – I doubt it would work as well but it is possible. Here I think we bump up against the leading edge of science methodology. The traditional (i.e. "modern" 3rd PP) scientific paradigm is to separate things into their components and then see how they correlate, as if they were separate but related. But can they really be separated? Again are the parts things we make up arbitrarily? Like you can describe any color using the RGB system or the CMYK system – neither can lay claim to being the "right" way to break it up into independent dimensions. In the hard sciences "complexity science" (what I would call 4thPP science) has been able to work better with emergent non-linear patterns. For psychological sciences I think complexity is largely used just as a metaphor (though in social sciences "social network analysis" does produce quantitative results).

I am not sure: what is gained and lost from trying to measure each of the component constructs separately, and from moving away from using a holistic construct? As you know, researchers have done these comparisons with many of the psychological constructs we have assessments for. It's a lot of work and it adds something to our understanding of ego development (and the other constructs), but my take is that few if any of these studies yielded results that changed how people (still) understand ego development.

Also, one thing that is exasperating about defining ego development, from a measurement perspective, is that the basis for describing it keeps changing with each level. For
example, at the lower levels it includes "impulse control," but the relevance of that part fades away in differentiating later levels. Ego (or MM) development is what is seen to emerge as people mature (get wiser with experience). You can't predict what the next level (or branching set of emergent phenomena) would look like based only on the qualities of the prior levels (that is one definition of emergence – e.g. you can't predict the properties of water/H₂O based on the properties of H and O). We can predict that it will be more complex and nuanced, etc., but not the observable psychological phenomena are emergent.

You are concerned with the later levels, do you think my argument applies for them?

**D. Complexity vs. Witnessing; States vs. Stages; and the Logic of Development**

TJ: RE "the basis for describing it keeps changing with each level" – I think that is a good and significant point. Common's uses the same "rule" for moving to each level. Fischer changes the type of object with each tier, so that is somewhat similar. But you are right, in Loevinger's system at least, there is no transition rule that specifies how each stage goes to the next.

Anyways, you may be making things more complex than is needed Tom. I agree that my six capacities would need a bit of work to be turned into solid theory or science (some of them should overlap, but others should be more independent). But, to repeat from my prior email "I still believe that it makes sense to avoid collapsing increasing complexity/increasing abstraction of concepts with witnessing capabilities into one stage sequence, in favor of allowing for different combinations of different dimensions of development/awareness."

I think the transpersonal stages cannot be explained by increasing complexity and levels of abstraction of mental representations. There is a quite different dimension of development that has to do with noticing internal processes and gradually disidentifying with the thoughts, emotions, desires and other goings-on in the mind and the body, giving rise to an increasingly strong capability for witnessing.

What if we just focus on those two aspects? Do you, or does Terri, think that they can be lumped together?

TM: OK, I may have gone off the deep end there RE the wide lines : -). I share your intuition that there seems to be two separate things going on there at the higher levels (Terri's Metaware tier), something related to complexity and something related to something more spiritual or transpersonal. First, what I can say from experience is that I have been at gatherings of people most of whom scored in the STAGES Metaware tier, and I would have to say there really was something palpable about the "ego development" (including an extra nice sense of humility and humor), but, though they were all pretty intelligent and nuanced, there were a lot of people there who had not developed (and maybe were not interested in developing) the abstraction skills it takes to understand really obscure philosophical discussions, write academic papers or rigorous scientific explanations, or
design a large scale systemic change in an organization. I think a group of people who score high on "paradigmatic thinking" in the HCT model would feel very different to be with vs. this group (with, maybe 30-50% overlap). I might learn more and be more intellectually impressed with such a group, but probably would not enjoy myself as much and fall in love with them all as easily.

Terri has assessed many people with advanced spiritual practices and stages. She also finds that ego development is relatively independent of all that spiritual stuff, and that it captures the complexity with which someone understands what is revealed by those spiritual/contemplative experiences pretty accurately. The assessment does not put those advanced state-stages at the top – it puts a certain sophistication of one’s interpretation (meaning making) of them at the top. There are many ways to interpret the "no self" experience, and only certain ways will rate in the Metaware tier. Same with the emptiness of conceptual meanings, emptiness of time, or space, etc. The assessment (and theory) do not measure the state-stages, but the theory does say that having certain state stages is a prerequisite for Metaware stages. I think there is some interesting research that could be done to try to prove this – it’s just a hypothesis at this time (Terri’s paper in this issue says more about the theory).

Also Terri’s theory of States is related here. We understand from the Wilber-Combs principle that one can experience states associated with "awakening" at any of the developmental levels. Terri asserts (it's not always clear whether Wilber agrees) that certain stable state experiences are necessary but not sufficient for solidifying certain stages of development. State here seems related to modes of perception, like "metacognition" or "awareness of awareness." But Terri extends the concept of state-stage (or view) down earlier than the usual "spiritual" associations, to include things like holding focused attention, and hypothetical thinking (fully controlled internalized perceptions, free of memory) as state-stages. Relating it to what I said above about exteriors before interiors, it could be that the "necessary" is about purely cognitive ability, like witnessing, but to be "sufficient" to create ego development the awareness has to be applied to deconstructing and understanding the self. The findings you mention in your paper about the "Mysticism Scale" not correlating with ego development measures fits right into this extended interpretation of the Wilber-Combs principle.

TJ: Well, this is all very interesting. I believe it can be fruitful to consider the relationships between increasing capacity for dispassionately witnessing internal processes, gaining a more complex understanding of causality regarding those processes and the role of shadow aspects in ego development. However, that seems to be a whole new area of exploration. I am still questioning if it isn't potentially problematic to operate with a one-line sequential stage framework in the more sophisticated forms of adult development.

I.e. the question that is prominent for me is that if the Stages framework really captures a developmental sequence, what is the logic that explains that the Metaware tier requires having mastered the Subtle tier first? Any thoughts about that? As I have said before, in

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7 This topic is covered in more detail in two articles in this special issue, one by O'Fallon on stages and stages; and the other by Churchill and Murray, on Indo-Tibetan contemplative practices.
Fischer’s and Dawson’s frameworks, there is clear intelligible logic in the sequence of the tiers, each new tier representing a higher level of abstraction by creating mental constructs that condense complexity into higher-order concepts. It still seems to me that the Metaware objects you talk about are not concepts that represent very complex relations among concepts on the preceding levels.

Also, I would be interested to hear your comments on the late stage awareness profiles I sketch in the 2018 IR article (see section "Five Prototypical Late-stage Awareness Profiles"), in particular regarding person D and E. Do you think that such profiles exist? If yes, how could they be expected to show up in a SCT and in relation to the STAGES stages?

TM: Referring back to what I said above on wide lines (and the link to more discussion). Maybe the two of us could come up with a list of pros and cons of wide (all-encompassing) vs. narrow (multi-) lined approaches. There are a bunch of tradeoffs I think, in terms of (a) comprehensibility/usability; and (b) ability to demonstrate validity.

But, RE the logic of ego development, tying together several points I've come to, I said there were two necessary but not sufficient conditions for ego development into any level: the requisite complexity capacity and the requisite stable stage-stage. It might be that these two together are sufficient. Hmmmm...as I think of it I would propose that if we include a third thing that would cover the whole picture (maybe): the unlearning part. So I'm thinking that ego development requires (1) the stage-stage to have awareness into a certain depth of the self; (2) the complexity capacity to comprehend patterns at that level; and (3) the application of that awareness and complexity to unlearn whatever stands in the way of progressing at any given fulcrum. (Oooh – I will have to put this in the paper I am working on with Churchill in this issue!)

So, in terms of whether a wide/holistic/single line is a good idea, we could ask what is lost by using a model with one holistic line? Referring to the three things I just proposed as prerequisites for ego development, we could say that what ego development assessment misses is that it does not register: (1) state-stage achievement without the other two parts – i.e. spiritual realization without ego development (maybe called the "spiritual enthusiast"); (2) complexity capacity by itself – i.e. the horizontal spin-outs; and (3) late stage narcissism – one who has spiritual realizations, and the cognitive complexity for deep understanding of what is revealed there, but has not applied it to deconstructing enough of the self (such a person uses his capacities to evaluate and manipulate others). We might say that ego development construct is defined as a combination of the three things, so it does not measure growth that does not combine all three. (This is only partially true as, the STAGES assessment at least, the assessment final score value may miss these things but the human process of assessing the sentence completions and preparing a personal analysis does note some of these nuances, such as spin-outs).

RE your question about the profile sketches of person D and E in our paper – I will copy that here:
### Table 1. Profile sketches.

<table>
<thead>
<tr>
<th></th>
<th>Cognitive complexity</th>
<th>Perspective awareness</th>
<th>Construct awareness</th>
<th>Self-awareness</th>
<th>Pure awareness self</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Person D</strong></td>
<td>Weak</td>
<td>Weak</td>
<td>Weak</td>
<td>Strong</td>
<td>Moderate</td>
</tr>
<tr>
<td><strong>Person E</strong></td>
<td>Weak</td>
<td>Weak</td>
<td>Strong</td>
<td>Moderate</td>
<td>Strong</td>
</tr>
</tbody>
</table>

I will have to think about this more, but I think my analysis above of the spiritual enthusiast, the 4.5 spin-out, and the late stage narcissist is close. The first and last have weak CC and perspectival awareness; the first has strong pure-awareness. One thing we have not touched on much is the difference between the aware-ness of awareness and construct awareness aspects of 5th PP. Terri would have more to say on this I am sure.

But I think those three things above define what you call the "logic" of the ego development sequence. The simplicity of the logic behind HCTs is either misleading because, as I said, it does not differentiate different types of meta-moves, or, in some cases it implicitly uses a limited type of meta-move which is rather cognitive (CC) and thus would not capture all of what is going on in ego development.

I would have to think about this more, but, given what I said above, it may be possible to specify the types of meta-moves involved in ego (MM) development: (1) Witnessing, or any awareness that perceives a deeper aspect of self; (2) reflective abstraction or subject-object move which uses complexity capacity to see how the now-seen part fits/operates within the self as a system; (3) a releasing ("emptiness") move (Bonnie Roy would call it "insight generation") that unlearns an old assumption to allow for new emergent understanding of the self-system (and thus a new understanding of self/other/world).

What is not worked out here (but see the other papers in this issue by O'Fallon and Churchill) is specifically what is witnessed, comprehended, and released at each developmental fulcrum. Also, the STAGES scoring method could be enhanced to more explicitly pull out separate sub-indices for these moves − witnessing, CC, and unlearning − or any of the other sub-skills like the ones you mention in your paper.

I would guess that move #1 is related to "quieting down" and "witnessing" in your words, and your "disidentifying" maps to the third part − what do you think?

### E. Skipping Stages and Meta-move Types

**TJ:** I think in part what you are saying is that there is a lot in the STAGES theory that is not directly related to, or assessable by, the STAGES assessment. I think the difference between what is proven, or even provable in theory, should be clarified in the descriptions of STAGES. I am also interested in pinpointing what descriptions are really supported by empirical evidence of any type, and what statements are more intuitive or
speculative. And I am really more interested in qualitative data than quantitative, even though the latter is important for stringency and reliability.

As you know from previous exchanges we have had (and my 2018 IR article), one of the questions I have is whether the model adheres to the idea that no stage can be skipped, following the principle common in ego development models. This seems to be what warrants your Metaware stages being stacked on top of the Strategist stage. Has this hypothesis been proven?

TM: Hmm ... for me the issue of skipping stages is more complicated than it seems at first glance. HCT specifies that the next level comes from any operator that operates on one level to coordinate the prior level into an emergent next level. But there are many possible meta-moves for building one hierarchical layer upon another, and it seems that HCT is mute on which ones are involved in any application. The subject-to-object move is one; synthesis is another, abstraction is another, witnessing may be another meta-move. The way HCT is usually used (e.g. in Lectica assessments) I think there is an unexamined assumption that sticks with a certain type of meta (hierarchical) move (reflective abstraction), even though they portray it as covering all possible types of hierarchical moves. I think a lot of people in our community confuse that with the specific, and most popular, evaluations used by Dawson and colleagues at Lectica, which are specific instantiations of MHC for specific (task) domains. I.e. they don't measure "hierarchical complexity" they measure it in some area.

IMHO though Lectica folks say they are measuring "hierarchical complexity" in the actual practice of their better-known assessment tools they are measuring a specific cluster of meta-moves, all of them related to the single concept (meta-move) of "reflective abstraction." Fischer's and Common's theories can account for any type of meta-move, but the Lectica assessments we are familiar with measure a small cluster of moves. Lectica actually combines two meta-moves: the conceptual abstraction of the object, and the structural complexity of the idea (single > mappings > systems). Note that Lectica can and has built assessments that measure other meta-moves, like the hierarchical moves in learning ever more complex math or science. Here is another example, put yourself in a room of people scoring at the "paradigmatic" level in mathematical theory, and see if they seem overall extremely "mature."

RE the above idea of horizontal spin-outs, but they are only "horizontal" from the perspective of the ego development model! From a strictly cognitive model, things just keep getting higher in complexity – its not horizontal, its vertical, and the ego-developmental move of applying a given cognitive capacity to the domain of ego-involvement may seem a horizontal move! (See my IEC 2018 slides.)

One can imagine that if one kept to a single type of move as constant then you would have a very clearly defined hierarchical sequence. Stages could not be skipped, because each level builds upon the prior, by definition. But if one's developmental model

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8 This next part is something I presented in my IEC conference talk in 2018.
incorporates several types of moves then its more complicated. From level X of complexity you can get to level X+1 by making moves A or B or C, and by the time you get to level X+3, is there a risk that you are comparing apples to oranges? This is the case if you are comparing just cognitive complexity at level X with ego development at level X.

But regarding the question of whether "no stage can be skipped" – I addressed it from a theoretical (or construct aware) perspective, but it can also be addressed empirically for the STAGES model. I will send a draft of the paper going in this special issue, titled "Summary of STAGES validation research." In it we mention a longitudinal study that seems to show that the metaware stages do follow on top of the earlier levels.

TJ: You said above that "there are many ways to interpret the 'no self' experience, and only certain ways will rate in the Metaware tier." So, yes, but does the sophistication in interpreting the perception of awareness as such reflect a level of abstraction that builds upon (requires) and goes beyond the level of complexity at the Strategist level? – that is a core question for me.

TM: OK, and now I am also noticing that you wrote "Fischer’s and Dawson’s frameworks, there is clear intelligible logic in the sequence of the tiers, each new tier representing a higher level of abstraction by creating mental constructs that condense complexity into higher-order concepts." So the concept of higher abstraction is important to your question. I will answer from my understanding (I wonder what Terri would say here – and also, I am in early phases of on a whole other paper just on the topic of "Abstraction and Metamodernism," and don't have these ideas fully baked yet).

As I said, HCT builds layer upon layer based simply on each level operating on or coordinating the prior level. Abstraction is only one such operation. Formal operational thought is sometimes defined as the combination of abstract thinking and logical thinking – which both come on line at 3.0 (3rd PP) in STAGES. Abstraction and logical complexity are defining moves through the whole Subtle tier, but starting with the Metaware tier a new type of awareness and object appear that is not defined by an abstraction move. The objects that emerge at each tier may be theoretically unpredictable based on the prior tier – this is the nature of emergence. E.g. given just matter you can't predict life, and given life you can't predict mind/culture – though you can always go back and explain how the later builds upon the prior, the emergent level is a kind of surprise.

The move into Metaware is an emergence move, not an abstraction move. Like the emergence of abstract thinking on top of concrete thinking, we can say that it is what is observed to happen, not what must happen. Our data shows that metaware thought does come after (e.g. 5thPP comes longitudinally after 4th PP); and Cook-Greuter's and Torbert's work has always included the idea that construct aware and unitive come after Strategist. I can try to explain why/how we think 5th PP builds on top of 4th PP, but I think our explanation of this is still forming (and not as good yet as the literature that explains how formal operations builds upon concrete operations).
Within 4th PP one increasingly builds deeper understanding of the parts of the psyche/mind, ideally including the embodied perceptual deepening as well as cognitive complexification. What emerges at Metaware is a coming together of the parts, as their relationships and interpenetrations are seen and deconstructed and integrated – into a new level of holistic apperception of the self. The witnessing state or "awareness of awareness" is also an awareness of all those parts of the self that are held by awareness, i.e. are not awareness (as awareness becomes object). If you don't do the emergence move, and keep going with abstraction, then you get the 4.5 spin-out, and this may be why HCT and STAGES seem to diverge at the Metaware tier. (Again, increasing abstraction beyond 4.5 levels may be an important vertical move for some models, but not for STAGES or ego development.)

I think that this happens at each tier – a new object emerges and then abstraction and complexity are the logic that build CC in that tier (first individuals then collective/systems) until the next tier emerges – which is an emergence move not an abstraction (or complexity) move. The idea of "simplicity on the other side of complexity" is different for conceptual/abstraction moves vs. for emergence moves (this is what I am working out in that new paper).

Anyways, we have opened up a lot of questions here. What would be some good next steps?

F. STAGES Empirical Studies and Longitudinal Analysis

TJ: I have now read the paper you sent me, with a good deal of interest, even though I am very weak on statistical analysis (and not so very interested either). I do think it is a very good thing that you and the statisticians you have worked with have critically examined the statistical properties of SCT testing and reviewed and developed the methodology for arriving at scores. The article will be a valuable contribution to the field in these respects. Having longitudinal data is indeed very significant. The analysis of the statistical properties of the test offers a number of valuable and corroborating conclusions, that’s fine.

As you can imagine, the major question marks I have about the Stages model are not addressed in the article (which was not to be expected given its purpose). Here is a somewhat different way of approaching what I have asked before.

Since I am not intuitively convinced that inhabiting the metaware stages, in the sense of being aware of and preoccupied with pure awareness, necessarily comes after one has mastered the late "Subtle" stages (I don’t like the term subtle, hence the quotation marks), it would be helpful to know if people who are scored at Terri’s metaware stages always convincingly display evidence of being at home in the preceding stages. So what would be interesting, and would provide support for the Stages model’s assumption about a linear stage sequence, is, at its simplest, to see if everyone who scores at one of the Metaware stages also fulfills the requirements for being scored at stage 4.5 (and possibly 4.0). It would be of particular interest to look more closely into any cases of people who
were scored at 5.0 or higher and who don’t fulfill requirements for stages 4.5 and 4.0, if such cases exist. I.e. if you (a collective you here) can report empirical evidence that people who get scored at Metaware stages have a significant number of individual items scored at the late "subtle" tier, so that it is evident that the Metaware stages transcend and include the previous stages in a linear sequence.

My intuition is, as you know, that awareness of awareness is very weakly linked (if at all) to cognitive complexity, and that there are surely people who have a well-developed witnessing capability without having a very complex cognitive world. So, do 100% of the people who score at Metaware stages fulfill the requirements for stages 4.5 and 4.0? If a lower percentage, how low? If there are Metaware people who don’t fulfill requirements for stages 4.5 (or 4.0), what do their item distributions look like?

Ideally you would show this in relation to the scoring procedure, so that people who are deemed to be at Metaware stages have mastered the kind of cognitive complexity and levels of discourse abstraction characteristic of the later postconventional stages. I.e. if the assumption is that you only reach the Metaware stages after having matured into the Strategist stage, then I think it would make sense to include a rule in the scoring procedure that you only get a summary score on the Metaware stages if you also have a substantial number of individual items scored at the late Subtle stages.

TM: OK Thomas. This is a great idea. If there is time between doing all the other things I need to do for this issue, I will run this data analysis. If not soon, then later.

But I do have a guess. The paper I shared with you shows that scores tend to cluster around an average in a normal bell-curve distribution. If the average was at 5.0 then there would probably be a lot at 4.5 also. I will check. But the cutoff method to determine the final score (TPR or 'center of gravity') only looks at the top scores, which for the metaware tier is looking for only 4 scores at or above a level to say the person is at that level (Susanne uses a similar method). So given that, it is almost guaranteed that there will be many more scores below the "center of gravity" score (at 4.0 and 4.5). I think to answer your question I should also look at the percentages of scores at each later level (sort of like looking at the straight sum of scores and ignoring the cutoff method).

Also, in Table 4 of the Research Summary paper ("Longitudinal: Prior Scores vs. amount of change to next score") you can see the longitudinal transitions for all surveys, starting at each level, how many went up, stayed the same, or down for the next longitudinal test by how much. That gives some indication of your question, but this is all data at the survey level, and your question asks at the item level, which is a great idea.

TM: OK, I have done that analysis and here is a figure below. We would not have thought to do this if you did not ask your question, so thanks. Here is a chart showing, for protocols with center of gravity values (ogives) of 3.0 to 6.5, what percent of the 36 item scores are at each level.
This is what I am noting:

You can see that for 5.0, 5.5, and 6.0 there are many scores at 4.5 (Strategist). (Recall that the ogive cutoff method prioritizes the higher scores, so the total score is not the average, and is often not the mode, i.e. top of the bell curve.)

However, the scores do tend to follow a normal distribution around the average, so at 6.0 and 6.5 there are naturally less and less in the Subtle tier.

The 6.5 graph by itself might seem to confirm your suspicion that the meta tier does not have many subtle tier scores, but (1) there are not as many scores there so its a weaker data point, and (2) as mentioned above, people tend to write close to their center of gravity or average, even if the have the capacity to write lower.

Recall that with each tier the type of object changes, so the complexity about that object can start again at low and build up from there – so there may actually be a kind of reduction in horizontal complexity starting at 5.0 (as in Fischer's model). (We are finding that in general the scoring system puts more in the X.5 (active) vs the X.0 (passive) scores. We think this is because people in passive phases have a harder time finding he words, and drop down to the prior level for content).
Compared to a normal distribution, 4.5 scores have a lot of 3.5 scores, 5.5 surveys have a lot of 4.5 scores, 6.0 surveys have a lot of 5.0 scores; and 6.5 surveys have a lot of 5.5 scores – this many indicate that for higher levels, a person with a active (X.5) center of gravity uses more active language in general (and vice versa for passive (X.0)).

But overall this should answer your question. Scores in the metaware tier (at least 5.0, 5.5, 6.0) have substantial scores in the subtle tier, and in particular a substantial number of scores at 4.5/Strategist, which tend to have complex language.

TJ: Thanks so much Tom. These are important data if you want to strengthen the plausibility of the linear sequence. So it is a valuable addition to us outsiders knowledge about what results you are getting. It would also be interesting to know if there are protocols scored at 5.5 or higher with no or almost no items scored at 4.5 (and 4.0). The pattern for the few 6.5 individuals is curious. For those of us who are interested in the highest stages, it would be a good thing to look more closely into the meaning-making worlds of people scored at 6.5 and 6.0, both in terms of looking at the actual responses as whole protocols, and, of course, to talk to them (interview) about a whole range of matters, and get a sense of how they navigate life. There are of course confidentiality issues here, and also problematic, from a scientific point of view, that the number of individuals is small.

G. Qualitative Analysis and Digging Deeper in Future

TM: Yes, I think this points really well at possible next steps we could explore in the next year or two. Most of the study’s we have done with STAGES are statistical and look at averages and numbers; including comparison with another framework (Susanne's MAP). Terri has written a lot about the qualitative patterns seen within the inventories, but more could be done at the text level to compare with other models. For example, Terri is scoring children's protocols now and separating out different patterns and themes she sees. (See that paper in this special issue). More could be done actually to look at the outliers – the text that does not fit the norm, for instance "spin out" text that would score late in HCT but not reach Metaware in STAGES, or vice versa. We could learn a lot from that type of analysis.

Also, I just noticed you said "I am really more interested in qualitative data than quantitative" analysis. So maybe what we can do is share some of the actual sentence completions of people who are outliers (vs. the figure above) in that they have a lot of metaware scores but not many 4.0 or 4.5 scores. We can all think together about what this means. How does that sound?

There is a lot that is not shown in the "score." The total inventory score hides the pattern of levels (the histogram) over the 36 stems, and the score of each stem hides a lot of what goes on inside the completion. STAGES scoring looks at the level of complexity for the most abstract/subtle object in the sentence completion. Some completions are one or more paragraphs long. A 5.0 completion person may include some complex language about subtle tier objects, and then some simple or passive (receptive) language about a metaware object – the metaware phrase trumps the subtle phrases. If the metaware object
is spoken of in more active/agentic/complex language then the score goes up to 5.5. But at any rate, the 4th PP activity in the completion is hidden from the score.

TJ: That is certainly interesting and would be informative. What I mean with qualitative is more in the line of doing something like Kegan's subject-object interviews with people, in order to get the opportunity to get much richer accounts of how people who score at certain stages experience themselves, relate to emotional and cognitive dynamics, react and act in social interactions, how they function in work and life, etc. I have not been in a position to thoroughly scrutinize Terri's stage descriptions for the Metaware stages and compare those descriptions to what I know from elsewhere. I think there is a lot of work to do before we can get a more grounded sense of the status of those stage descriptions in relation to real people's meaning-making patterns, subject-object balances and ways of navigating social relationships.

Also, as side comment, while I have it in mind, not directly related to this: I have not had time to really look up how different Terri's stage description of 4.5 Strategist is from Torbert's description of the Strategist (E8). I would guess that there are significant differences, not least related to what status is given to cognitive complexity and what I would like to call "context awareness." This relates to the general question if it makes sense to see the Strategist stage as something that has to be inhabited before one can develop the Metaware stages.

But let’s try to put this thing to rest for now!

TM: OK Thomas! This points to some rich inquiry possible going forward, especially in looking into specific examples of text – and maybe comparing how outliers would be scored by different systems. There would have to be a special agreement with Stages International on looking at specific text, as our agreement with subjects is that specific text examples are analyzed in-house and not shared publicly. But another option we have used is to combine elements of several responses to create generic examples that don't reflect the text on anyone in particular. It would also be interesting to separate out the different aspects of a given level within text, such as the abstraction vs logical moves in the Subtle Tier; or the awareness vs construct aware moves at 5thPP – I think much of this comes down to the STAGES scoring of early vs late within a level, which has not been written about much yet. Also, I mentioned the aspects of text that are "lost" in the numerical scoring, that could be re-analyzed.

Note that subsequent to this email exchange, Thomas and Terri O'Fallon had a videoconference conversation about her model, which has been transcribed and is available at: http://www.perspectus.se/tj/ConversationOFallonJordan.pdf
References


Murray & O'Fallon. Summary of STAGES validation research. This issue of Integral Review.


