

# Correcting Improper Uses of Perspectives, Pronouns, and Dualities in Wilberian Integral Theory: An Application of Holarchical Field Theory

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**Abstract:** This article uses my pre-existing extension of Wilberian metatheory, holarchical field theory, to diagnose and work towards overcoming the confusion within attempts to analyze action, events, and communication using Ken Wilber's AQAL model. In holarchical field theory, *holarchical fields* become the fundamental component of reality. These fields comprise 1) holons in relation to one another and to their potential, and 2) their interpenetrating forces engaged by their interactions. In light of the theory, problems in the Wilberian literature have included inconsistent uses of certain dualities (subject-object, interior-exterior, and inside-outside) as well as person perspectives and pronouns. Previous attempts to overcome these issues without precise diagnoses suffer from a conflation of the dual definitions of the subjective-objective duality, one a philosophical definition, the other grammatical. State versus action language is classified within the dualities of holarchical field theory.

**Keywords:** AQAL, holarchical field theory, integral communication, integral scientific pluralism, Ken Wilber.

## Introduction

In my recent work (Bowman, 2009, 2012a, 2012b), I have extended certain key aspects of Ken Wilber's AQAL model to form what I call holarchical field theory (HFT). It encourages a more formal and consistent analysis of action and events between subjects and objects using Wilberian integral metatheory. HFT has the desirable feature of being able to incorporate a field-theoretic framework for a more dynamic use of Wilberian theory. HFT will be situated in some of the literature of field theories in the social sciences that have been used to analyze individual, organizational, and society change, particularly the strands that closely follow the field theory of Kurt Lewin. The objective of this article is to improve upon the internal consistency of Wilberian thought, thereby readying it for more appropriate use in analyzing multiple-holon interaction.

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Problems associated with Wilber's integral mathematics will be demonstrated and corrected using holarchical field theory.

Of particular concern here are the inconsistent uses of the subject-object, interior-exterior, and inside-outside dualities as well as person perspectives and pronouns in the Wilberian literature. Wilber (2002, 2006), Edwards (2003) and O'Connor (2008, 2010) all propose alternative uses of pronouns and person perspectives using Wilberian metatheory. Edwards' and O'Connor's critiques of Wilber's uses of pronouns and person perspectives show that these features of Wilber's approach need reconsideration. In light of HFT, however, Edwards' and O'Connor's alternative uses will be shown to suffer from a conflation of the dual definitions of the subjective-objective duality, one a philosophical definition, the other grammatical. This reductionism will be coined as the philosophical/grammatical conflation. This will demonstrate an advantage of having a clear differentiation of these dual meanings within the extended Wilberian framework of HFT.

Holarchical field theory (HFT) reconstituted integral theory such that *holarchical fields* became the fundamental component of reality. These fields integrate the two previous fundamental units of Wilberian theory: holons (Wilber 1995) and perspectives (Wilber 2002, 2006). Holons (as defined by Wilber, 1995 who followed Koestler, 1964) are (organisms, collectives, things or systems that are) simultaneously a whole in one context and a part in another. Holarchical fields include both holons in relation to one another and to their potential, as well as their interpenetrating forces engaged by their interaction. A component of HFT is integral scientific pluralism (ISP), which integrates Esbjorn-Hargens' (2010) integral ontological pluralism and integral epistemological pluralism into zones created by a fuller use of the dualities in Wilberian theory (Bowman, 2012a). HFT is a dynamic extension of integral scientific pluralism (Bowman, 2012b).

ISP and its extension into HFT are summarized in the next section of this article. I then situate HFT as a metatheory bridging Wilber's AQAL model and field theories in the social sciences. HFT is then used to spot and avoid some confusion within attempts to analyze action, events, and communication using Wilber's AQAL model. The subsequent section presents the alternative uses of perspectives and pronouns by Edwards (2003) and O'Connor (2008, 2010) as suffering from the philosophical/grammatical conflation. I then demonstrate how state versus action language can be classified within HFT. This section also shows that pronouns and first-, second-, and third-person perspectives cannot be reduced to particular AQAL or HFT realms without qualifications. This finding plus the specification of the philosophical/grammatical conflation helps one better understand the subtle meanings and inconsistent uses of dualities by Wilber in the next section. The subject-object integration in HFT is then used to weigh in on the recent dialogue between Ken Wilber and Roy Bhaskar, founder of critical realism, related to an epistemic fallacy in integral theory and an opposing ontic fallacy in critical realism. I then conclude. The appendix provides a new instructional example of two individuals communicating (a dynamic event) to illustrate the elements of HFT.

## Summary of Integral Scientific Pluralism and Holarchical Field Theory

This section briefly summarizes first, integral scientific pluralism and then, its extension into holarchical field theory.<sup>2</sup>

### Integral Scientific Pluralism and Modularity

Compared to Wilber's AQAL, integral scientific pluralism more formally includes the dualities of internal-external and health-pathology as well as the subject-action-object triad. I will clarify Wilber's use of the eight zones, which makes use of the internal-external duality. I will then divide each zone by the health-pathology duality and the subject-action-object triad. The division of each of the eight zones by the subject-action-object triad is justified by Wilber's notions of broad and good science. Broad science includes interior and exterior types (Wilber, 2000b). Good knowledge requires knowing the kosmic address of the perceiver (subject), perceived (object), and "what injunctions [methods as actions]...a perceiving subject must perform in order to be at a Kosmic address that can perceive the object" (2006, p. 267). Only the methods (actions of scientific inquiry) are formally included in Wilber's integral methodological pluralism. The proposed complements of integral ontological and epistemological pluralisms (the object and subject realms of scientific inquiry, respectively) will be formally included within integral scientific pluralism.

One benefit of adding the health-pathology duality is to aid in the examination of those things that contribute to or inhibit development. Edwards (2010) methodically and metatheoretically examined the metatheories of Ken Wilber (AQAL) and Bill Torbert (developmental action inquiry) (Torbert, 1976, 1991, 1999; Torbert et al., 2004) along with a thorough meta-study of the organizational transformation literature. Edwards specified the health-pathology, internal-external, and perspectives lenses as lenses that appear in the literature studied. They are also lenses that are used, but not formally, in AQAL (Edwards, 2010, p. 217). This provides additional justification to formally include them if logically supported and consistent.

The construction of integral scientific pluralism (ISP) begins with Ken Wilber's eight zones of integral methodological pluralism (IMP). For Wilber (2006), IMP uses the eight zones as eight different perspectives to view the four quadrants (pp. 36-40). For example, the individual-interiority of the upper left quadrant can be examined internally (as with the class of methodologies called phenomenology) or externally (with the structuralism class). In a later section, I will show that Wilber has not always consistently followed his own definitions of the internal-external or inside-outside dualities. Wilber (2002, Excerpt C) defines *internal* constituent parts of holons as following the agency of the holon while those that do not are *external*. Parts that are *inside* a holon are within its boundary. Items beyond its boundary are *outside* of the holon. Parasites or repressed thoughts are examples of items that are inside holons, but not internal to the holon.

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<sup>2</sup> Here I will provide brief justification for the extensions. Citations will be provided for my earlier work and its more detailed arguments.

For HFT, I define the internal-external duality as Wilber defines the inside-outside duality (items separated by the holon's boundary). Thus, I can use internal-external the way Wilber uses inside-outside in the formation of the eight zones because I will also allow for positive (healthy) and negative (pathological) aspects which are internal or external. So a parasite or a repressed thought is a pathological internal item.

I use the term internal-external (instead of inside-outside) for the following two reasons. One is that internal and external aspects can be associated with the common dynamic terms of internalize and externalize as was done in Bowman (2009). We do not have verbs like insidize or outsidify. The second reason is that all the distinctions that Wilber makes can be fully accommodated when the health-pathology is crossed with what I am calling the internal-external duality.

I define healthy items as those that are capable of contributing to meaningful needs satisfaction (which would include items that aid in meaningful development). Pathological items are items that tend to be destructive and may inhibit meaningful needs fulfillment and development. This is consistent with Wilber's (1995, p. 78-79) discussion of healthy and pathological drives such as autonomy (healthy agency) versus dissociation (pathological agency).

To distinguish between healthy and pathological actions that emanate from healthy and pathological holonic aspects, respectively, I use the adjectives positive or negative. Thus positive externalization is a force that contributes to healthy expression, needs satisfaction, or development that moves beyond the border or a holon (as when the education of the mother benefits her child). Please note that internal-external is different from the interior-exterior duality. My thoughts and our mutual understanding are interior aspects while my brain processes and the interstate highway system are exterior items. My thoughts and my brain processes are both internal to me as an individual holon.<sup>3</sup>

I treat the eight zones as not only eight perspectives, but also eight distinct realms in which holons exist. Thus the phenomenologist examines individual-interior objects as they appear in the internal realm of the phenomenologist. The structuralist may ask questions of individuals to study their individual-interior as they appear in the test-subjects' external realm. This will aid in tracking the aspects of the subject that perceives versus the aspects of the object being perceived. Examining four-quadrant evolution or deciphering the relatively healthy choice in a given situation benefits by differentiating relevant internal and external items. For a generalized example within Wilber's stated four-quadrant correlations, two largely egocentric tribes cannot sustainably merge within a sociocentric empire and transform their culture up to that correlative level without a certain aspects that are internalized, like emergent capabilities (taking the role of other, sociocentric rules, etc.) while others are externalized (irreconcilable myths and procedures that oppose those of other tribes they may unite with).

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<sup>3</sup> The labels healthy and pathological internal and external are also more intuitive than relying on the definitions Wilber specifies for inside-outside and internal-external. The two dualities are easily confused without keeping careful track of the definitions.

Treating the eight zones in this manner then allows for them to be crossed by the subject-action-object triad such that each zone can be seen as an area from which a subject takes a perspective (subject) and interacts (action) with its environment (object). This is necessary to specify the scientist (subject in this example), his or her employment of methods (action) and the object of study (object). This creates 24 horizontal zones of each level of development. Crossing the realms further with the health-pathology duality makes the 48 horizontal realms of *integral scientific pluralism* as shown in Figure 1. This article will contribute to a view that a formal extension of AQAL to include the internal-external and health-pathology lenses is beneficial.

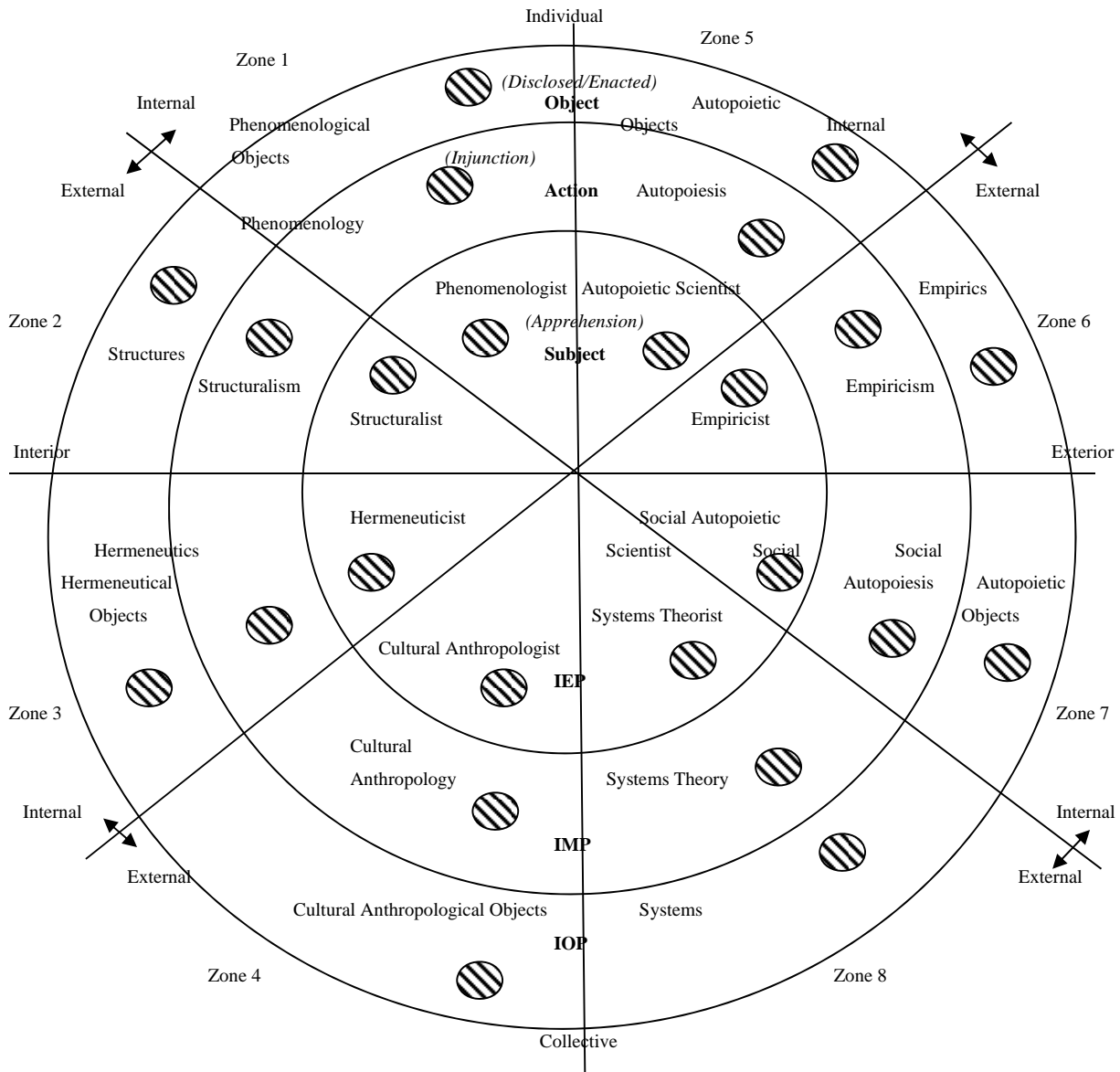


Figure 1. *Forty-eight horizontal realms of integral scientific pluralism.*  
 Key: = the pathology of that realm; IMP = integral methodological pluralism; IOP = integral ontological pluralism; IEP = integral epistemological pluralism.  
 Source: Bowman (2012a, p. 58).

With ISP, the eight classes of methodologies (IMP), when employed, can be seen as dynamic interactions between the subject scientist and, potentially, an eight-zonal object. This encourages a high degree of reflexivity of the subject scientist, which is an important focus of the metatheory of Edgar Morin (2001, 2004, 2006, 2007; Montuori, 2013). Given the fractal nature of ISP, all 24 horizontal realms, once mastered, become a new tool (a new method). An object of scientific inquiry can be examined as at the center of its own subject interacting with other objects. Taking a perspective then becomes a particular action from the subject realm to the object realm that can be mapped with this approach. Later sections will show that a more formal treatment of perspectives is needed in AQAL.

Esbjorn-Hargens (2010) began to postulate an integral ontological pluralism (IOP) and integral epistemological pluralism (IEP) to complement Wilber's IMP (within a Wilberian approach). Similarly, Esbjorn-Hargens and Zimmerman (2009) organize their Wilberian metatheoretical study of ecology by the Who (subject or IEP), the How (action/method or IMP) and the What (object or IEP). Therefore, IEP, IMP, and IOP reside neatly within the ISP realms.

Consider how ISP informs its user of how scientific inquiry involves these ISP realms. For example, the scientist interprets data using his own interior-individual-internal symbols, translations, etc., and is constrained or empowered by his own psychograph (phenomenology). Ideally, he judges the correspondence of his thoughts to his written output and makes assumptions of the interior-individual receptivity of his readers or the interior-individual motivations of his test-subjects (structuralist). Whether or not he is scientific or not as a structuralist, he must work with his own thoughts. He views his objects of study through cultural understanding such as the accepted paradigm of his discipline (hermeneuticist). He must present novel findings that can have an impact in that paradigm (cultural anthropologist). His scientific endeavor is fostered in part by his individual biological skills such as his dexterity at manipulating scientific instruments and computer keyboards (autopoietic scientist). The social structures in which he is an internal member such as the persuasiveness of his academic appointment and his ability to obtain research funding also influence him. Those social aspects that are currently external to him, such as the carrot of tenure, other non-academic options, or a wider academic readership also drive and constrain him, consciously or unconsciously (social autopoietic scientist).

I distinguish between primary and secondary methodologies. Scientists tend to work within a certain strand or a few strands of established scientific inquiry. They present their findings from the accepted methodologies within these strands. These are the stated methodologies or *primary methods* within the paradigm. The other methodologies are *secondary*. They are methods used without scientific justification when evaluated according to the best scientific principles available across the broad sciences. They are used less consciously, less transparently, or less justifiably as when the dominant paradigms in economics and political science assume all agents to be atomistic and egoistic. The atomistic and egoist assumptions are not justified (without proper contextualization) from an ISP lens because it violates the roughly known distribution of agents found by structuralist and cultural anthropological sciences. Yet the assumption is accepted by precedence within positivist and empiricist schools of thought. So scientists do not merely take an exterior perspective (or what Wilber and Esbjorn-Hargens call a third-person perspective). All eight perspectives are taken together while the exterior perspective may be the

stated (primary) method. Understanding of the distortions from secondary methods, I argue, is an important ongoing project for Integral Theory and a key to the success of Wilber's integral reconstruction. His model does not heap together knowledge from across various disciplines, nor does it construct a scientific study controlling for all eight methodologies. Rather, it includes partial truths and removes partially invalid assumptions and results when they are examined in context with the other disciplines and wisdom traditions. This is a particular, skilled, and broad use of these eight methodological classes. This Wilberian, metatheoretical methodology I call *integral scientific modularity* (ISM) (Bowman, 2012a). With the aid of the formal constructs of AQAL (such as the many levels of the four quadrants), findings from one discipline are contextualized and integrated with findings from other disciplines.

ISM adds insight into Wilber's epistemology and methodology. It is consistent with, and bolsters Edwards' (2010) contention that "orienting generalization cannot be validated at the middle-range level because they are only fully articulated at the level of metatheory" (p. 89). Although I would prefer to state 'more fully articulated', Edwards' statement was in disagreement with Crittenden's (1997) assertion that Wilber's methodology began with orienting generalizations from various disciplines. ISM warns of the potential biases and distorted findings from fragmented modern and postmodern science, yet also provides some direction for an integral reconstruction.

Crossing the ISP realms with the health-pathology duality allows one to clearly see that there are degrees of health within each zone across the subject-action-object triad. In other words, there are healthy and unhealthy aspects within the capabilities and limitations of scientists (epistemologically), within the way they conduct their investigations (methodologically), and within their objects of study (ontologically). Scientific endeavors have revealed aspects of all forty-eight zones. For examples differentiated by epistemology, methodology, and ontology, see Bowman (2012a).

More generally, we can think of a subject and an object as each having healthy and pathological capabilities allowing for positive and negative interaction. Examples of healthy capabilities in particular subjects include well-adjusted individuals psychologically (upper-left), constructive moral codes (lower-left), well functioning body-brains (upper-right) and useful aspects of governance procedures (lower-right). We may be specifying them as internal to individual or collective subjects or in external holons relative to others. Unhealthy, items include individual neuroses (upper-left), physical ailments (upper-right), racist beliefs learned in the family (lower-left), and incentives in the political system that encourage corruption (lower-right) either in a particular subject or object (internal) or in subjects or objects that are related to other subjects or objects (external).

Many unproductive dialogues occur when agents implicitly disallow both healthy and unhealthy aspects to occur in a particular realm. Consider first an exterior-intensive object, the economic system. A Marxist economist and a neoclassical economist may not learn from each other if the Marxist only acknowledges unhealthy aspects of the capitalistic system and the neoclassical economist finds everything about capitalism to be natural and beneficial. For an interior-intensive example, a man and wife in a strained relationship may have trouble reconciling if they each think of the other person as approaching their relationship troubles

completely unhealthily psychologically while take no responsibility for their own individual-interior shortcomings as they apply to their difficulties.

When subjects and objects interact, healthy capabilities will tend to cause events that satisfy needs meaningfully while the unhealthy ones will inhibit meaningful needs satisfaction. To chart the various channels of interaction, it is helpful to cross the 16 object zones and 16 subject zones with the static-dynamic duality. This is explained in the next subsection.

## **Holarchical Fields and Holarchical Development**

In order to summarize the holarchical field construct, it will be useful to first discuss Wilber's concept of kosmic address, which, in simplified form, is a holon's altitude (level of development in various lines) plus perspective.<sup>4</sup> Altitude is a static capability or present potentiality while taking a perspective is a dynamic event. ISP makes clear distinctions between static capabilities and potentials of holons separate from their dynamic interactions. Potential implies various possibilities given one's capabilities in a given environment. The possibility may be routine or emergent. For an emergent action for an individual, consider Vygotsky's (1978) zone of proximal development. There is a leading edge for an individual that allows her to solve certain problems. The skills and capabilities in relative lines of development are stocks of development. Solving a problem is a dynamic task. Some, more complex problems are not quite, but closely within the individuals grasp, or within the zone of proximal development, if the individual is supported with someone with a greater, relevant skills set. The dynamic interaction between student and teacher can then build greater stocks of relevant skills for the student.

Since taking a perspective is a dynamic event, I have defined holarchical embeddedness as, essentially, kosmic address without the chosen perspective of a given moment. In ISP, the *holarchical embeddedness* of the subject and all relevant objects is their pre-existing statics (including needs, characteristics, capabilities, potentialities, occupation, incentives, social power differentials, and so on) and history with components of the environment. *Holarchical interaction* of subject and object includes their interrelated dynamic events (perceptions, analyses, active relations, choices, movement, communication, and so on). Empirical investigations would begin with a smaller subset of these distinctions, but theoretically, HFT begins broadly (as is the stated approach in field theory). And theoretically, a clear static-dynamic distinction is needed for a number of reasons. For one, the model can be used to help assess the relative health of stakeholder interactions relative to their potential so that prescriptions can be made to intervene and encourage healthier results. An integral national income accounting would also need the static-dynamic differentiation to specify stocks of assets (such as the levels of four-quadrant capital in the economy) and the holarchical needs satisfied from the production and consumption of goods and services from those assets in a given time period. Holarchically embedding the assets could significantly improve our understanding of economies, networked and otherwise.

The relationship between holarchical embeddedness and the dynamic events between subject and object are explored further with the extension of integral scientific pluralism. ISP can be

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<sup>4</sup> A more elaborate address will include the holon's typology, present state, etc.



linked with the dynamic drives of the *holarchical development* model (Bowman, 2009). In holarchical development, the eight zones (interior-exterior times individual-collective times internal-external) times the health-pathology duality are further crossed with the static-dynamic duality. Table 1 represents the relationship between the static realms in which holons exist, and their correlated dynamic action. For example, a holon exists in the four quadrants; that is, it has at any given point in time, intentional, behavior, cultural, and social capabilities and potentials. These aspects are relatively static in nature. The intentional items are described as existing in the individual-interior realm. On the other hand, the dynamic action of reading a profound book can build individual-interior capital for that agent. This would be a combination of positive interiorization and positive individuation.

Again, positive actions are defined as those that contribute to meaningful expression, needs satisfaction, or development. Negative drives detract from or inhibit meaningful expression, needs satisfaction, or development. Neutral drives neither promote nor inhibit meaningful expression, needs satisfaction, or development. In Kurt Lewin's (1951) field theory, drives are categorized as driving or restraining. Driving forces tend to propel individuals or groups towards a goal or certain action, while restraining forces tend to prevent certain behaviors.

Table 1. Holarchical Drives (Corresponding to the Static Dualities) and Examples of Their Corresponding Actions.

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<i>Drives of the <u>Interior- Exterior</u> Duality (Times Health-Pathology)</i>	
<p><b>Positive Interiorization</b> Training or reading a book that expands one's understanding. <u>In a Subject Scientist</u>: An insight that solves a puzzle in the economics literature. <u>In/As the Object of Study</u>: The productivity improvements from a transformation of consciousness of the average worker over time.</p> <p><b>Negative Interiorization</b> Ignoring exterior causes from a belief that we can change <i>all</i> of our reality by recognizing the exterior as illusory; paranoid interpretations.</p>	<p><b>Positive Exteriorization</b> Putting into writing a brilliant idea; reproducing another machine part; forming muscle memory from practice.</p> <p><b>Negative Exteriorization</b> Operating with limited intention because one thinks thoughts are only products of brain chemicals reacting to exterior stimuli; computer hacking a benevolent charity's website.</p>
<i>Drives of the <u>Individual-Collective</u> Duality (Times Health-Pathology)</i>	
<p><b>Positive Individuation</b> Honoring individual choice; respecting the individual perspective for its partial truth.</p> <p><b>Negative Individuation</b> Alienation from the collective; not honoring the partially-valid individual perspective.</p>	<p><b>Positive Collectivization</b> Contributing to social value; learning the language of the collective; openness to learning from another person.</p> <p><b>Negative Collectivization</b> Indiscriminately accepting all individual choices as equally valid; destructive herd behavior.</p>
<i>Drives of the <u>Internal-External</u> Duality (Times Health-Pathology)</i>	
<p><b>Positive Internalization</b> For society, taxing gas to make drivers bear costs of pollution; taking responsibility for a mistake.</p> <p><b>Negative Internalization</b> Absorption of pollution by an innocent bystander; feeling guilt for what is beyond one's control.</p>	<p><b>Positive Externalization</b> Releasing limiting thoughts; firing an incompetent worker; the destruction of a virus by antibodies.</p> <p><b>Negative Externalization</b> The loss of awareness from a peak experience; Projecting beyond oneself one's own repressed issues.</p>

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*Drives of the Higher-Lower Duality* (Times Health-Pathology)**Positive Ascension**

Releasing attachment to a literal notion that demons cause illness in order to open to the germ theory of disease; emergence of a higher capacity.

**Negative Ascension**

Denying an ability to attain higher awareness with transformative practice (rather, thinking only through death or by miracle can one go higher); blind obedience to higher-level authority when one knows better.

**Positive Descension**

Enjoying to eat healthier such that the lower hunger drive is satisfied with rational understanding of health; relativistic-level parents teaching traditional-level children to recycle.

**Negative Descension**

Denying greater potentials of the lower (e.g., one *must* abstain from sex to transcend lower expressions of it); a rational-level holon disallowing the expression of feelings.

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Source: Adapted from Bowman (2009, p. 18).

Once one accepts the usefulness of making static and dynamic distinctions, the dynamic drives follow naturally from Wilber's writings as the examples in Table 1 convey. First I will focus on the horizontal realms and drives. Recall from above, the reference to healthy and pathological autonomy and communion (Wilber, 1995, p. 48-49). Their meanings clearly imply actions relating to the static duality of individual-collective. (See Bowman 2009 for a detailed discussion). A constant theme for Wilber is how AQAL aids the user to see reality in more of its dimensions thereby fostering a healthier and more balanced holarchical use of its realms (which are created by crossing dualities). Similarly, Edwards (2010, p. 7-8) argues that metatheory such as AQAL is capable of specifying strengths and weaknesses of the unit-level theories it integrates. Flatland reductionism to the exterior domains as in scientific areas dominated by positivism and empiricism (Wilber, 1995, p. 450) is contrasted with broad science (Wilber, 2000b, p. 74) that recognizes interior and exterior dimensions and scientific methodologies to appropriately access them. Since the internal-external duality is not as well integrated into AQAL, I draw on Pigou's (1932) seminal work on positive and negative externalities and internalities.<sup>5</sup>

Moving onto the vertical dimension, we see references to vertical drives and vertical levels in healthy and unhealthy manifestations. Wilber contrasts healthy agape or compassion in the descending direction versus unhealthy thanatos or repression in the descending direction. In the ascending direction, healthy eros is offset by pathological phobos (Wilber, 1995, p. 348-351). Regarding health and pathology by specific level, Wilber (1995) and Beck and Cowan (1996) discuss healthy or emergent capabilities at a given level in contrast with problems at a given level that may necessitate growth to a higher level to overcome. Edwards (2010) also describes new powers and problems associated with the various levels of organizational development.

One could provide an example per dynamic drive that relates to a particular subject and another for a related object. In Table 1, this is done for one drive for illustration, but only one drive for conciseness. For instance, an economist as a subject studying the economy may experience positive interiorization as she intuits a new insight that solves a difficult puzzle in the literature on labor market participation and wage rates (positive interiorization in the subject). Alternatively, the object of study may be the productivity improvements that result from a

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<sup>5</sup> See Bowman (2009) for more on the justification for these dynamic drives as correlated with Wilberian dualities. Included are some references to how others have also used them such as Carl Jung and Jean Piaget.

transformation in consciousness of the average worker over time (positive interiorization in the object). This example again brings out the fractal nature of working with this model. The object just mentioned is its own subject (the average worker making choices) that dynamically interacts (transforms) with objects (more productive machines). This subject-action-object triad is itself an object that is dynamically engaged by the subject economist during her study.

ISP (Figure 1) and the holarchical drives (Table 1) are linked with the static-dynamic duality. The dynamic dualities (interiorization-exteriorization, internalization-externalization, individuation-collectivization, positive-negative, ascension-descension, and subject-object interaction) correlate directly (and respectively) with the static dualities (interiority-exteriority, internality-externality, individuality-collectivity, health-pathology, height-depth, and subject-object embeddedness). Thus the dynamic dualities specify the action between subject and its object environment while embeddedness relates to one another the holarchical location of the subject and object that are interacting.

*Holarchical field theory* is the result of this linking ISP and the dynamic drives. For this branch of Wilberian metatheory that I have offered, no longer is the fundamental unit holons (Wilber, 1995), nor perspectives (Wilber, 2002, 2006), but instead holarchical fields formed by interpenetrating classes of drives between holarchically-embedded subject and its object environment. Notice that HFT does not merely embed the subject in on object environment in only a relative, otherwise ungrounded manner, as when a reader of literature is embedded in a culture by a postmodern analyst. Instead, both the subject and object are each holarchically embedded and as a result of their relative position in holarchical space (each can be described independent of each other). Their potential fields within this setting then provides certain probabilities of various actions, theoretically. The field construct transcends and includes the relatively static descriptor, holons, and one of their dynamic actions, perspective-taking. According to Smith and Smith (1996), a definition for a field that is applicable to all social and natural sciences was given by English and English (1958, p. 207): it “substitutes events for things having fixed properties, and sees events as totalities in which parts of the event are what they are, qualitatively and quantitatively, only in terms of the rest of the event.” Such an approach is needed to examine complex actions. The formal action examined thus far using Wilber’s integral mathematics has been limited to one holon taking a perspective, which discloses an aspect of an object.

Holarchical field theory can be used to distinguish and relate state versus action developmental theory. Holarchical embeddedness is described relatively intensely by state development theory, which focuses on the capabilities that develop in sequence in various lines of development. For examples, Piaget (1977) and Aurobindo (n.d.) studied cognition; Kohlberg (1981) and Gilligan (1982) morals; Graves (2005) and Beck and Cowan (1996) values; and Lenski (1970) and Marx (1977) techno-economic base. Action developmental theory describes relatively intensely the guiding strategies or action logics associated with different stages of individual or collective development. Examples include the action inquiry of Torbert’s (1976, 1991, 1999) and the action science of Argyris’ (1996; Argyris and Shon, 1996).

An increase in integral tendencies in culture (a transformational influence) could contribute potentially to a more meaningful and sustainable society for first-tier agents, not just integral-

stage agents. The full specification of dynamic drives fosters examination of these subtle differences in emphasis (translation, transcription, and translation). Integral agents could invest in their own skills to further develop (positive ascension), or they can invest in skills that can contribute to healthier actions of First-Tier agents (positive descension). The concept of *holarchical development* is intended for just such differentiations. It can be represented by Figure 2, which shows, roughly, a hypothetical case of balanced development. With balanced development, there is positive development in all holarchical directions. This follows Wilber's (2000a, p. 198) statement that nested pyramids could also represent his many-leveled, four-quadrant diagram. A deeper (North-South) pyramid is from positive individuation and collectivization. A wider (East-West) pyramid is from positive interiorization and exteriorization. A taller pyramid is from positive ascension, and a steeper slope is from positive descension. The process also involves positive internalization and externalization such that greater potential is realized within the boundaries of the pyramid and positive externalization where the obstacles that prevented that growth are eliminated or related external holons also benefit.

Balanced development, however, is not necessarily the case, nor is it even typical. The model must allow for developments that are intensive in the various holarchical directions as with the finding by Beck and Cowan (1996) that stages alternate in emphasis of autonomy (positive individuation) and communion (positive collectivization). Consider also Wilber's descriptions of the dignity and disaster of modernity. He writes that development at the rational stage has occurred disproportionately in the exterior realms with even pathological differentiation and atomistic conceptions of reality (development with a heavy combination of positive and negative exteriorization and individuation). Similarly, postmodernity contributed to development with an emphasis on the cultural quadrant, but has overplayed its significance such that hierarchical stage theories and logical analyses are deconstructed without reconstruction.<sup>6</sup>

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<sup>6</sup> See Bowman (2009) for a description of the partially valid critiques of Wilber's AQAL model, which can be grouped as the ascending-bias criticisms. There I describe how the dynamic drives can be derived from Wilber's writings to increase AQAL's internal consistency and better differentiate the vertical directions of development. This at least partially overcame AQAL's ascending bias without succumbing to the pre-post fallacy (that is, without elevating pre-conventional tendencies to post-conventional or reducing the post to pre).

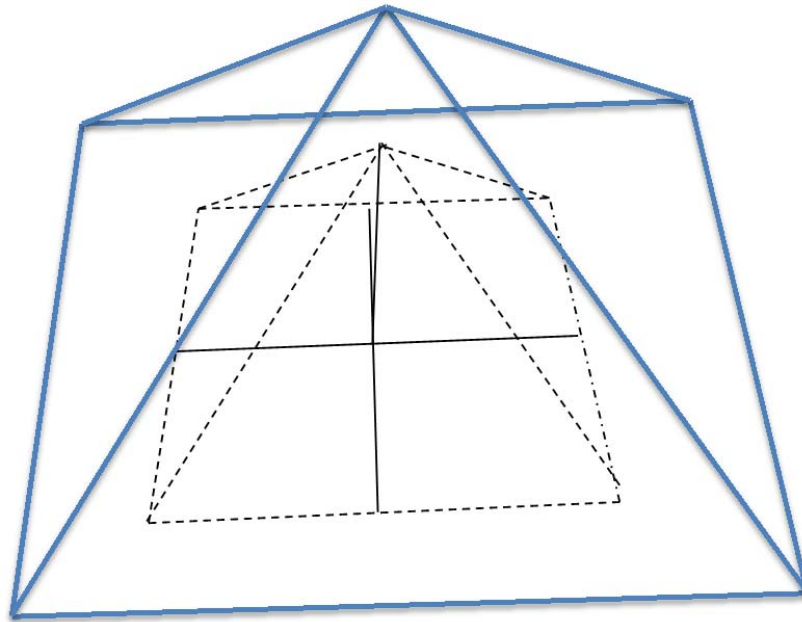


Figure 2: *Balanced development in each holonic direction resulting in a larger pyramid.*

Source: Adapted from Bowman (2009, p. 4).

## **HFT as a Metatheory Bridging AQAL and Social Science Field Theory**

Here I use Mark Edwards' (2010) metastudy of metatheories and his own metatheory to help orient holarchical field theory (HFT) within the metatheoretical literature. This also provides insight into HFT's extensions of AQAL, which builds bridges to field theories in the social sciences. I will focus on the field theory of Kurt Lewin (1939, 1951) and some of its more contemporary influences.

Overton (2007) distinguishes ordinary theory from the conceptually higher-level metatheory. Ordinary theory and methods use the empirical world as its subject matter, while metatheory and metamethods take the ordinary theories and methods themselves as the subject matter. Edwards (2010) worked on yet a higher conceptual level as he compared different metatheoretical models and methods including those classified as traditional meta-construction, the dialectical method, metatriangulation, metaparadigm inquiry, and metatheorizing in sociology. The traditional meta-scholarship relies on a theorist's broad reading across many related disciplines and his or her intellect and intuition to build a large theoretical framework. Although important connections and models can result, the method lacks transparency and repeatability.

The dialectical method (e.g., Marx, 1977) resolves opposing perspectives through rational dialogue. According to Paolucci (2003), Marx's method involved inquiry, conceptualization of core elements, case comparisons, deductive analysis and provisional abstractions, model building, evaluation, presentation, and continued inquiry.

Edwards concluded that only metatriangulation could claim to be a systematic research method for metatheory building. Its three phases are groundwork, data-analysis, and theory building as in the work of Lewis and Grimes (1999). For Edwards, multiparadigm inquiry (Lewis and Kelemen, 2002), with similarities to the approach of Ritzer (1991, 2001), is a complementary tool for comparing theories and metatheories given its comparisons of “underlying themes and key conceptual factors” (Edward, 2010, p. 85).

Edwards’ own metatheoretical method is an extension of the systematic metatriangulation method. Edwards’ extensions help overcome the inability of metatriangulation to widen the range of existing paradigms and lenses. Edwards found all four metatriangulation studies within his chosen domain (organizational transformation) to rely on the four paradigms (interpretive, functionalist, radical humanist, and radical structuralist) specified by Burrell and Morgan (1979). Saunder et al. (2003) also recognized the problem of the reproduction of existing paradigmatic relationships in studies using metatriangulation. Edwards’ resulting eight phases of his metamethod are groundwork, domain specification, design, multiparadigm review, multiparadigm analysis, metatheory building, implications, and evaluation.

Edwards places Ken Wilber’s method in the traditional category. Edwards adds transparency by pointing out the characteristics of the formal and informal aspects of the theory. Edwards recognized the four quadrants as a crossing of two dualities, a method used to synthesize various perspectives in other studies. Of course, in the case of AQAL’s four quadrants, individual-collective is crossed with interior-exterior to form four areas (the individual, interior quadrant; the individual, exterior quadrant; the collective, interior quadrant; and the collective, exterior quadrant). Thus the method of, and value from, using formal dualities that Edwards specified is consistent with the method of, and value from, what I specify as integral scientific modularity. ISM also improves upon the transparency of Wilber’s work and HFT by extension. Integral scientific modularity is a more generalized argument that includes the formal and informal aspects of AQAL. When used successfully, Wilber’s method of referencing claims across disciplines and methods contextualizes one another and do not necessarily require formalization, as Edwards uses the concept, in order to better judge the partially valid from the partially invalid conclusions. Judging by a broader survey of cross-disciplinary and cross-methodological studies helps one overcome results from unjustified assumptions while honoring those that result from state-of-the-art scientific inquiry. Furthermore, HFT formalization of what were informal relationships in AQAL by using the (bipolar, triadic, or spectral) crossing method is sanctioned by Edwards’ meta-analyses. The domains of HFT represent an unprecedented level of differentiation and integration as measured by the number of dualities, triads, and spectra simultaneously crossed with its results systematically described and theoretically supported. Improved internal consistency, as described in later sections, provides some confirmation of the appropriateness and fit of the HFT extensions of AQAL.

Recall that HFT formally includes some conceptual lenses that were used informally in AQAL (internal-external, health-pathology, and subject-action-object). We can add to this list the autonomy-communion duality (an added lens labeled as informal in AQAL by Edwards, 2010, p. 217). The static-dynamic formalization of HFT pairs the dynamic drives of autonomy and communion with the static realms of individual and collective thereby formally integrating the autonomy-communion duality.

The perspectives lens is also informal in AQAL according to Edwards. In HFT perspectives may be considered informal as well, yet they take on more detailed meaning. They are the subject views that result from certain field action in given object environs. This type of perspective talking (action) is a general use separate from first-, second-, and third-person perspective taking, which will be examined in later sections.

Also consider the other lenses listed by Edwards as informally used in AQAL: transformation-translation, inclusive emergence, exchange relations, transition process, and spirituality. Furthermore, consider conceptual lenses identified in Edwards' metastudy that are not included in AQAL formally or informally: social mediation, learning, system dynamics, alignment, stakeholder, decentering, evolutionary process, and governance hierarchy.

Comparing the lenses that are formally included in AQAL versus those that are informally or not included suggests that AQAL is more closely related to static developmental rather than dynamic developmental theory. The later more typically works with the omitted lenses (although not always formally). Interestingly, those dynamic developmental theories specified in the previous section (action inquiry and action science) share an important lineage going back to Kurt Lewin's field theory (Burnes, 2004). The action science of Argyris (1990) and organizational dynamics of Hirschhorn (1988) helped renew interest in field theory. O'Connor (2008, 2010) shares an interest in better incorporating insights from action science into the AQAL framework. He has correlated three types of organizational guiding strategies by level of development. So although many lenses are not formally included in HFT, many of them are more accessible with the field-theoretic approach of HFT.

Lewin is considered the father of social psychology and famously worked to reconcile a divide in psychology at the time between the influences of nature and nurture on behavior (Brown, 2011). Lewin (1951) conceptualized and empirically found behavior to be a function of the individual and his or her environment. For him it was necessary to include all relevant individual and environmental factors including psychological, biophysical, and socio-cultural (i.e., Wilber's four quadrants). Lewin (1951) also did important work in analyzing vertical development and regression with an emphasis on differentiation and integration. Field settings also bring out different aspects of an individual's personality. Perceptions, feelings, and actions of the individual were grounded in group membership (in family, work, church, school, etc.), norms, roles, socialization, interaction and change.

The group is a broader and more flexible unit in Lewin's field theory than in Wilber's AQAL. Wilber stresses same-level relational exchange where, for example, rational stage individuals tend to be associated with rational-stage collectives. For Lewin, it is not the similarity or dissimilarity of individuals that constitutes a group, but interdependence of fate. When there is interdependence in the goals of its members, group behavior can be cooperative or competitive potentially stimulating movement towards attaining goals. In his analyses, group atmosphere can vary in friendliness and group governance can range from laissez-faire to democratic to autocratic (Smith, 2001).

Goals, aspirations, and expectations are central to Lewin's approach to behavior at a time when those issues were considered non-scientifically accessible. Lewin's work on boundary

issues clarifies the need to formally include the internal-external boundary while specifying key relationships among holons. In ISP, it is essential to specify the subject's relevant object environment. The horizontal and vertical drives make connections between subjects and objects within and between levels of development and should not be limited to same level relational exchange. This approach better asks how an integral culture would better align the drives of agents and different first-tier stages for the health of the given holarchical life space.

Gold (2002) described Lewin's metatheoretical approach as, not technically a theory or method, but a set of rules for building sound theory. The rules are: i) create constructs, ii) include dynamic relations where a change effects each relevant component, iii) start with the situation as a whole (the field component), iv) assume contemporaneity (the past or future only affect a situation if they relate to a present specification), v) formalize if possible but it is not required if the theory is not mature enough in a given area, vi) use a psychological approach (perceptual and cognitive processes are related to outer events in the physical, psychological and social environment). Gold argues that Lewin's psychological side of the theory is more formal than the social side. For the psychological side, Lewin defines primitive terms, posits their axiomatic relations, and generates logical axiomatic combinations of the primitives. This approach is underdeveloped on the social side. A key to advancing the field approach is in the formalization of the boundary issues and holarchical field theory helps provide some insight. In Gold's writing, the boundary problem, or the "reciprocal influences between the individual and social environment," takes on the character of the individual-collective distinction. This implies that the linkages between psychological and behavioral events are more formally analyzed. Gold argued that more work is needed to expand on Lewin's social concepts (social space, gate keeper, group atmosphere) while incorporating probabilistic and stochastic collective facts.

HFT incorporates the internal-external duality requiring a specification of a boundary between holons in each quadrant (psychological, behavioral, cultural, and social). This and the related classes of drives is offered as a potential tool for organizing developments in modern field theories, action science, action inquiry, and complexity theory. Bion (1961) drew on Freudian and Lewinian theory in his influential work on unconscious aspects that often undermine group performance. Rummel (1975, 1976, 1981) developed a sophisticated field theory that drew on the field theories of Lewin, Sortkin (1969), and Ushenko (1946), among others. Rummel provided an updated philosophical grounding aimed at reconciling opposing philosophical approaches. He also expanded on the vector field approach conceptually and with updated empirical specifications.

Applying part of this approach to HFT, a holarchical vector field may be used to chart dynamic interactions among the subject and object environment. The dynamic drives are classes of holarchical vectors (which specify holarchical direction and magnitude). For example, interiorization is a holarchical direction through the interior holarchical realm. It is a class of drives, meaning that other individual, interior aspects of drives relating to aspiration, expectation, perception, thought, and so on, fall within the interiorization class. But they may be related to other realms. For example, a subject may aspire to know an idea or to acquire an object. The interior-individual aspiration is a drive that tends to propel the subject to action such as reading to learn the object idea or work to earn money to buy the object. Thus the object selected by the subject and method can be in different realms. (The example in the appendix brings out some



more of these issues). Those with highly developed interiority are capable of harnessing and controlling strong drives relating to the interior realm. More work is needed to formally tie together holarchical embeddedness in various basic and learning lines along with their related drives in various environments. For example, static cognitive developmental theory can describe *how* one tends to think at successive stages, now *what* one tends to think (Rosenberg, 2002). A dynamic, field approach is needed for better understanding of what one tends to think in various circumstances.

Complementary drives may amplify each other while opposing drives may dampen each other out. The 20 Tenets provides some theory about the actions that foster further development. Development may result from, for example, reconciliation of polar drives with a mutual orientation of their appropriate holarchical scope, including their partially valid parts while limiting their overstretched applications. This guides us to existing potentials that may be within a holon's zone of proximal development. For example, does the cultural drives in the group complement the individual's potential drives associated with satisfying his or her goals or needs? What barriers are involved in the various ISP realms? How can holarchical embeddedness of the relevant objects be best harnessed for mutually beneficial action? Can we better recognize and empower the complementary drives? What are the state-of-the-art methods that can empower tendencies into successful drives? How do we spot shadow elements as the root of negative drives?

Elrod and Tippet (2002) and Rosch (2002) see complex adaptive systems theory as an intellectual heir of Lewin's field theory. Argyris et al. (1985) and Shein (1988) have acknowledged the important influence Kurt Lewin has had on their own action science scholarship. Lewin, by the way, coined the term action research (Smith, 2001). In their work on organizational identity, Meyer et al. (2002) make use of Lewin's quasi-stationary equilibrium concept.<sup>7</sup>

Kurt Lewin's field theory and Ken Wilber's AQAL are better grounded in psychology as they ventured into collective realms. Pierre Bourdieu's (1984) field theory, in contrast, is grounded in the sociological tradition with special emphasis on power relations and the way field positions (including class differences) influence motivations, incentives, and power dynamics (Swartz, 1997). Sociologists Fligstein and McAdam's (2012) recent work in field theory is also firmly in the sociological tradition. Relative stakeholder positions, especially between incumbents and challengers, play key roles in the theory.

Perhaps HFT can provide conceptual tools and help further develop other efforts to utilize AQAL for dynamic analysis. In one such effort, I integrated the input-throughput-output triad by using a production function that converted four-quadrant capital into four-quadrant goods and services used to satisfy hierarchical needs (Bowman, 2008). Elsewhere, I made stakeholder

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<sup>7</sup> See Burnes (2004) for a discussion of Lewin as his field theory relates to modern strands of research on change dynamics such as organizational development, culture-excellence theory, processualism, punctuated equilibrium models, continuous transformation model, and the power-interaction model. Burnes (2004) and Rosch (2002) both argue that critics of Lewin's approach tend to mistakenly take his approach in a piecemeal fashion. Burnes (2004) and Rosch (2002) also see Lewin's critics as failing to acknowledge the role Lewin has played in influencing later work that expands on aspects of his work.

interaction an important part of my analysis of public economic policy (Bowman, 2010a, 2010b, and 2011). Various stakeholders (business groups, environmental groups, political parties, and average consumers and voters) were considered as influential on public economic policy based on their degree of health and development in the political-economic learning line (which consists of the conservative, liberal, and radical typologies). O'Connor (2008, 2010) made use of simple and higher-order learning modalities of organizations at three different levels of development in his unique use of AQAL. For researchers who have categorized disciplines or issues by quadrant, HFT encourages them to go deeper to disentangle and relate static and dynamic issues in different settings, and to use newly integrated theories in detailed analyses rather than stopping at topologically relating them.

The remaining sections use HFT to help spot and avoid inconsistencies in the Wilberian literature relating to perspectives, pronouns, and certain dualities. The confusion especially relates to attempts to formalize analysis of communication and action using AQAL (or variations of AQAL). The reader may be interested in reviewing the appendix section at this point or after concluding the article. It is an instructional example to demonstrate all the realms and drives that tend to be engaged during communication or action more generally. The complexity and consistency that is characterized by HFT analysis of action (in the appendix) is in contrast with narrower and problematic analyses of action in the Wilberian literature, which is examined in the remaining sections.

## The Philosophical/Grammatical Conflation

O'Connor (2008, 2010) contributed to integral theory by pointing out what he calls Ken Wilber's triad/quad conflation. This conflation is the reduction of the triad perspectives (first-, second-, and third-person perspectives) to the four quadrants. With the upper-left (UL), individual-interior quadrant, Wilber correlates a first-person perspective and first-person language represented by the pronoun 'I'. A second-person perspective and the 'we' pronoun is correlated with the lower-left (LL), collective-interior quadrant. Lastly, a third-person ('it' and 'its') perspective is correlated with the exterior quadrants ('it' for the upper-right quadrant, UR, and 'its' for the lower-right, LR). Esbjorn-Hargens' (2006, pp. 88-89) follows this association by calling the two methodologies in the UL first-person methods, the two in the LL as second-person, and the four in the exterior quadrants as third-person.

Grammatically, 'I' is a first-person singular pronoun, but O'Connor points out that 'we' is a *first-person*, plural pronoun, not a *second-person*, plural pronoun because 'we' implies a perspective directly experienced by the speaker. To add to the confusion of Wilber's integral mathematics, Wilber (2006, p. 40) not only rigidly associates a first-person perspective with the interior realms, but also the inside realms, what I have defined identically as the internal realms.

I agree with O'Connor that there is confusion of quadrants and person perspectives. It makes integral mathematics very difficult to understand and use, as I will show in a later section. Yet there are still fundamental problems with O'Connor's alternative use of pronouns and person perspectives. He claims, through his version of integral semiotics, that there is a first-person perspective associated with each quadrant as seen in Table 2. There is a first-person singular subject ('I' of the UL), a first-person singular object ('me' of the upper-right, UR), first-person

plural subject ('we' of the LL), and a first-person plural object ('us' of the lower right, UR). Similarly, there are second-person and third-person perspectives in each quadrant (see Table 2). O'Connor also establishes the possessive pronouns that relate to each of the twelve realms created by what he calls the "triadic-quadratic" perspectives. These are shown in the parentheses of Table 2.

Table 2. O'Connor's Problematic Triadic-Quadratic Perspectives.

	<u>Interior or Subjective</u>	<u>Exterior or Objective</u>
<u>Individual or Singular</u>		
<u>3<sup>rd</sup> Person</u>	She/He/It (Her/His)	Her/Him/It (Hers/His)
<u>2<sup>nd</sup> Person</u>	You (Your)	You (Your)
<u>1<sup>st</sup> Person</u>	I (My)	Me (Mine)
<u>Collective or Plural</u>		
<u>3<sup>rd</sup> Person</u>	They/These (Their)	Them/Those (Theirs)
<u>2<sup>nd</sup> Person</u>	You (Your)	You (Yours)
<u>1<sup>st</sup> Person</u>	We (Our)	Us (Ours)

O'Connor conflates the philosophical subjective-objective duality as directly related to the grammatical subject-object duality. The subject pronouns are used as subjects of a sentence, the element that agrees with the verb (as with 'He' in the sentence 'He ate it' to denote that 'Bob ate a meal'). The object is the element that is not the subject but that which the verb selects or requires ('it' meaning 'a meal'). Thus, O'Connor is using subject-object in its *grammatical sense*.

In contrast to the grammatical subject, subjective in the *philosophical sense* is an understanding or statement that depends on one's own experience, as with the statement 'blueberries taste better than strawberries.' Objective understanding (philosophically) does not rely on personal experience, as with the statement 'the floor of my front porch is not completely level.'

Wilber is justified to suggest the interior realms relate to one's own experience or perspectives that are philosophically subjective (intentions, values, emotions, thoughts, and so on) or intersubjective (mutual intentions, mutual understanding, mutual values, etc.). The exterior realms are philosophically objective (behavioral capacities, cognitive processes, and so on) or interobjective (infrastructure systems, voting procedures, etc.). This does not imply, however, that one can link O'Connor's use of grammatical subject-object with the interior-exterior duality, which is critical to O'Connor's claim of reunifying Wilberian and Habermasian metatheories. O'Connor proposed the use of his triadic-quadratic perspectives with the guiding strategies of action science by level of development to analyze action, but without formally demonstrating how.

This erroneous, rigid correlation conflates the philosophical subjective and objective definitions (from above) with the grammatical definitions of subjective (of or relating to a grammatical subject) and objective (of or relating to a grammatical object). In my interpretation, Wilber's concepts of broad science (2000b) and integral methodological pluralism (2002, 2006) are used to differentiate the dual meanings of the subjective-objective duality. Interior ('philosophically subjective') phenomena can be studied as 'grammatical objects.' Established interior methodologies access 'philosophically subjective' states and then generate 'philosophically objective' data. For instance, the data may include written answers to sentence completion tests. Analysis and comparison of many individuals may reveal interior, sequential structures of development. Such tests have led to the conclusion that transformation to another stage can be described as making what was formerly the ('grammatical') subject of one's interior awareness a ('grammatical') object. Notice the 'grammatical' use of subject-object by Kegan (1994); he describes vertical transformation as "liberating ourselves from that in which we were embedded, making what was subject into object so that we can 'have it' rather than 'be had' by it" (p. 34).<sup>8</sup> So for Kegan, interior elements can be grammatical subjects or objects.

In ISP and HFT, I follow Wilber in associating the philosophical subjective-objective duality with interior-exterior. But I have decoupled the grammatical subject-object duality from the interior-exterior one consistent with Wilber's "broad science" concept. The grammatical subject-action-object triad was crossed with the eight zones to form ISP. To rigidly link these dualities (as in Table 2) can be termed *the philosophical/grammatical conflation*.

Notice also that the scientist can be seen as an eight-zonal subject who 'does' science with potentially eight classes of methods to disclose scientific objects, potentially in eight zones. The method is the dynamic action, which *agrees with* the subject. The object of study is that which the subject *selects* with the method. Thus the subject-method-object triad relates directly to a grammatical interpretation, not a philosophical one. As shown in the next sections, this has important consequences for the use of pronouns and analysis of action in the integral literature which should help to channel the energy created by IMP while clearing the fog that Integral Mathematics (IM) simultaneously brought with Wilber's latest phase of AQAL theorizing.

Edwards (2003), the esteemed metatheorist I have relied on in the previous section, shared with O'Connor an attachment of 'me' and 'us' to the exterior while 'I' and 'we' are associated with the interior. He describes 'my behavior' as 'me,' for instance. But why can't my interiority be 'me'? I can see myself as someone who is reflexive on my good days and I hope my friends see 'me' this way at times too. Reflexivity is treated as an interior-individual object disclosed primarily by my employment of phenomenology in the case of me seeing myself this way since the object is internal to my awareness. In the case of my friends seeing me this way, it is an interior-individual object disclosed by my friends' informal structuralism, primarily, given that my reflexivity shows up in a realm external to me. This approach helps build a better understanding of complementary methods, which allow for mutual understanding in the lower-left quadrant.

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<sup>8</sup> Both articles by O'Connor that I have cited have won honors at the Integral Theory Conferences of 2008 and 2010 (see for example, Integral Theory Conference, 2008). I point this out merely to demonstrate the attention these articles have drawn in the integral community and therefore, some value in pointing out its errors.

One value in specifying person perspectives is to keep track of the multiple holons engaged in, or referenced in communication. Singular and plural pronouns do indicate, respectively, singular or collective holons, but verbs (whether they are state or action verbs) and other grammatical components can be critical for relating grammatical subjects and objects to the quadrants. Consider ‘My brain is wired poorly’ versus ‘Clarity expands my mind.’ The subject in the former sentence is a stated exteriority in integral theory, and the object of the latter sentence is a stated interiority. So grammatical subject cannot be reduced to the interior quadrants and again suggests a decoupling of grammatical subject-object from philosophical subjective-objective. To conflate them seems to reduce away needed subtleties in what O’Connor hopes to construct, an integral theory of action and communication.<sup>9</sup>

Wilber’s use of pronouns differs from O’Connor’s. Justification for Wilber’s association of ‘I’ with the UL, ‘we’ with the LL, ‘it’ with the UR, and ‘its’ with the LR is not entirely clear. Why does my use of ‘I’ and ‘we’ generally refer, respectively, to my and our interiority? Consider, for instance, the sentences ‘I intend to study’ versus ‘I need to smoke.’ The former sentence implies an interior intention of the subject and the latter a behavioral habit being performed by the subject. Who is doing the intending versus the habitual action? A holon who exists in all four quadrants (having an UL mind and an UR brain while being embedded in, and influenced by, various LL cultures and LR societies) and who acts in different instances with varying degrees of intentional, behavioral, cultural, and social influences.

Does Wilber mean that whenever one uses the term ‘I,’ it implies an interior awareness of something? This is an appropriate interpretation in ISP. When the realms of ISP refer to the speaker of the sentence who utters the word ‘I,’ then ‘I’ can represent a subject who is subjectively experiencing a phenomenon. Wilber is using the terms ‘I’ and ‘we’ less formally than I am here. Yet in keeping with the critiques of O’Connor and Edwards, integral theory may be better off taking a more formal approach. I will show in later sections that Wilber strictly correlates the first person to the interior and third person to the exterior in his use integral mathematics. Many problems result with his slide from an informal and loose correlation to a strict and formal correlation between perspectives and quadrants. So I shall continue with a formal approach to help the reader recognize and overcome such problems.

If I attempt to describe to you, your subjective experience of cooking last night, then this experience of cooking is a second-person perspective for me. The cooking experience is a first-person experience for you. Yet the objectification of it in my awareness is a first-person experience for me. To the extent we understand the experience, this understanding is a collective, interior, internal experience. Again, in a less formal approach, it appears that Wilber uses ‘we’ to indicate that we are aware of the same thing such that I can identify with your perspective, which is second person to me. Thus ‘I can take a second-person perspective.’ But these are particular, not general uses of how ‘we’ and ‘second-person perspectives’ are used. When I state to you that

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<sup>9</sup> The O’Connor pronouns in Table 2 can be appropriately presented as a crossing of two specific dualities [grammatical subject-object (not interior-exterior), and singular-plural or individual-collective] with the triadic person-perspectives (first-person, second-person, and third-person). The cells created, however, are not connected to Wilber’s four quadrants of intention (UL), behavior (UR), culture (LL), and society (LR) in the direct way O’Connor proposes. The next section describes how qualifications are needed if we use pronouns and perspectives in ISP realms.

‘We both jog along the lakefront’ or ‘I jog along the lakefront,’ the intension is for you to join me in my understanding of the sentence. The ‘we’ pronoun does not uniquely represent this in these two sentences. A simple reply of ‘yes’ by you in either case would indicate that ‘we both understand that we or I jog along the lakefront.’

Therefore, Wilber’s (2000b, p. 154) use of ‘we’ as a first-person plural pronoun and correlated with ‘you’ as a ‘second-person perspective’ to represent the LL means that the LL for ‘me’ can be thought of a perspective that ‘I’ (first-person) and ‘you’ (second-person) share (‘we’ share the perspective) if you and I can inhabit the same cultural space to allow for this shared understanding. Nonetheless, we need to clearly differentiate the internal and external aspects of these quadrants and avoid universalizing Wilber’s use of perspectives and pronouns to all uses of quadrants. This problem of overgeneralization becomes apparent in the next two sections.

## Pronouns and Person Perspectives in ISP and HFT

Recall the earlier distinction between static and dynamic developmental theories where the former relates closely to holarchical embeddedness and the later to dynamic engagement of holons. Static and dynamic language can be similarly categorized. Static (or state) language is related relatively more to holarchical embeddedness and dynamic (or action) language to the dynamic interaction of engaged holons. State language is used to describe subjects or objects in a particular state (or relatively static point in time). In the sentence, ‘He is tall,’ ‘is’ is a state verb. It describes, in this case, the subject in a relatively static, physical state. ‘Ran’ on the other hand is an action verb. Action language includes action verbs, action adjectives, and so on.

This section further demonstrates that person perspectives and pronouns cannot be reduced to particular AQAL or HFT realms without qualifications. First I will choose specific subject-verb-object language that can represent the meaning attached to specific ISP realms. Then I will provide an example of language that would overlap multiple zones. In order to do this, I must decompose the internal-external dimension into three parts: internal, mesoternal, and external. *Mesoternal* is defined as a situation that may have internal and external relations. Therefore, a mesoternal situation can be described as subject and object sharing some internal and some external aspects.

From the subject’s perspective, we can associate the first-person perspective with the internal realm. For example, ‘I observe my thoughts’ is a sentence where all elements belong to the same zone, zone 1 of Figure 1 (the same slice of the ISP pie). The sentence suggests an interior awareness for the subject-verb agreement, and the object selected is also an individual, interior aspect internal to the individual. The subject, action, and object are first-person experiences to the speaker of the sentence. Now consider the sentence, ‘You intend your intentions.’ Here, mesoternal matches the second-person perspective. The subject-verb combination suggests interior action of the subject. The object selected also involves an interiority of the same individual. Yet, the individual having the experience of intending intensions is second person to (and therefore one step removed from) the speaker. The experience referenced applies to the second person, which means it is *external* to the speaker, yet the subject of the sentence and the speaker are *internal* to the conversation. Second person suggests external *and* internal aspects, which I called *mesoternal*. Figure 1 does not have slices for mesoternal. We could add a

mesoternal slice to represent the second-person perspective in each quadrant. I choose not to provide a figure given that language does not always fit neatly in these realms. This section is merely offered as an aid in avoiding using pronouns, dualities, and perspectives in a reductionist way when using Wilberian theory.

Relative to the subject speaker, the external realm is the location of the third-person perspective because the third person referenced and the perspective are both external to those conversing. An example from the external, collective, interior dimension could be the statement, 'They agree on their ethics.' The subject and object referents are external to the perspective of the speaker and external to those conversing (two perspectives removed from the speaker). An example of a sentence entirely within the internal, first-person, exterior zone is 'My brain processes information bits.'

I demonstrated that from the subject's perspective, one could associate the first-person perspective with the internal realm; second person is associated with mesoternal realm; and third person with external. The holonic boundary can slide, however, if we define it as including more members, such as those being talked about, but not talked to. Returning to the initial reference points, the association of first-, second-, and third-person with internal, mesoternal, and external will continue to be the case even when we do not rely on examples of sentences that have all of their elements within one zone (or slice). In other sentences, the object selected can fall into a different zone compared to the subject-verb agreement as with 'I observe his behavior.' This use of 'I observe' suggests the subject's interior interacting with an exteriority of a third-person, a person outside or external to the conversation. Thus the object, 'his behavior,' is in another zone. The observation, or the subject-verb of 'I observe,' was first-person to the speaker, but the object is third-person to those engaged in the conversation. Here, nonetheless, one can still see the consistency in attaching perspectives with the internal-external spectrum. From the speaker's perspective, the first-, second-, and third-person perspectives can be directly associated with the internal, mesoternal, and external spectrum, respectively, when analyzing language. But one cannot reduce the person perspectives to the internal-mesoternal-external triad, because from another person's perspective, internal, mesoternal, and external will have different meanings. Also, one may choose to define the boundary of the holon differently.

Notice that if I stated, 'We share integral values,' then the subject of the sentence is a first-person, collective pronoun. The subject and verb are collective (plural), interior elements. But it is a first-person experience because it indicates my experience or view of us having integral values. The object selected is also in the interior, collective domain.<sup>10</sup>

Language incorporates the field aspect of subject-object relations or interactions engaged by the verb. (I use the word *engagement* here to indicate either state or action relations). Again, a

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<sup>10</sup> Here are other examples each coming from the three elements of a particular zone, but zones not yet represented. Zone 7 (from the perspective of the speaker): 'Our system constrains our physical interactions.' Zone 8: 'Their city fits their functions.' The mesoternal zone in the LR: 'Your buildings create your workspace.' Zone 2: 'She intends her thoughts.' Mesoternal zone of the LL: 'You (all) understand your values.' Mesoternal of the UR: 'Your habits repeat within your body.' Again, a subject-verb agreement can select an object from another zone. I provide one added example of this. In this case, the subject-verb comes from zone 4 and the object from zone 6: 'They agree on her physical handicap.'

static statement reflects holarchical embeddedness, yet we may still interpret a static sentence as a movement through time in a relatively fixed and stable manor. To maintain a state actually requires self-preservation drives of the holon in equilibrium with the drives of its environment. One can see that engagement can be described within or across zones (slices). This shows the range of engagement within or across certain holarchical boundaries given by the internal-mesoternal-external triad. Also, holarchical drives will cross from subject to object and from object to subject. In the example, 'My brain processes information bits,' the sentence indicates exteriorization from subject to object and from object to subject. The brain enacts the information and the information transmits to the brain. If I then add, "I conclude that the economy will contract over the next quarter," this implies interiorization from the brain to mind for analysis and prediction. There is also exteriorization of thoughts to words. Thus information was internalized and made into additional, individuated mental information and then externalized and collectivized for the group participating in the conversation. Where HFT would get interesting is by taking into account the various ways in which stakeholder groups or individuals interact by holarchical embeddedness. HFT can help the analyst conceptualize the obstacles and potentials for understanding and action.

In order for the language, however, to clearly signify interior and exterior aspects, I restricted the use of language to specific examples. Components of sentences may overlap these realms. If I say, "I am me," the object I am referring to may comprise interior and exterior elements. I may be referring to my height (an exteriority) or to my ability to make moral judgments (an interiority) or both.

## **Using Exterior, External, and Third Person Interchangeably and Improperly**

Here I will use HFT to point out inconsistencies and errors in Ken Wilber's writings regarding the interior-exterior, internal-external, and perspectives lenses. The relation between subject and object is complex in Wilber's work. "Integral post-metaphysics replaces perceptions with perspectives" (Wilber, 2006, p. 42). "It is not that perspectives come first and actions or injunctions come later; they simultaneously co-arise (actually, tetra-arise). Perspectives simply locate the perceiving holon in AQAL space" (Wilber 2006, p. 34). "Each moment is not a subject prehending an object; it is a perspective prehending a perspective" (Wilber 2006, p. 42). This certainly allows for causally efficacious objects beyond those perceived by the subject, as in my use of HFT. Yet Wilber's examples of integral mathematics (IM) do not bring out these forces.

Wilber's uses of IM limits his view of action to something less than fields. IMP, when housed within ISP and HFT, encourages the formal analysis of primary and secondary methods, for example, that are employed in engagement along with the multi-directionality of interpenetrating drives between holons and their current and potential environments. Unacknowledged, secondary methods and hidden drives are often the source of modern and postmodern biases as was discussed in the summary section. In my view, this is key to Wilber's successful integral methodology, but absent in his use of IM.

The confusion with pronouns and person-perspectives adds to the difficulty in formalizing Wilber's successful, but opaque integral methodology. Wilber tends to use the first-person



perspective interchangeably with the internal and interior realms. Prior to examining his integral mathematics, I begin with a relatively simple example of mistaken interchangeability of internal-external and interior-exterior with Wilber's (2000b) integral politics [*italics are mine*]:

[W]hen it comes to the cause of human suffering, liberals tend to believe in *exterior* causes, whereas conservatives tend to believe in *interior* causes. That is, if an individual is suffering, the typical liberal tends to blame *external* social institutions (if you are poor it is because you are oppressed by society), whereas the typical conservative tends to blame *internal* factors (you are poor because you are lazy). (p. 84)

Generally he sees liberals as focusing on right-hand-quadrant causes of poverty while conservatives focus on left-hand-quadrant causes. Yet his examples use elements of two different dualities (for the horizontal axis); internal-external and interior-exterior. He even uses all four words (internal, external, interior, and exterior). I agree that religious and socially conservative types often fault the character of the poor for their problems. This does indeed imply a focus on the *interior* realms (values, intentional choices, etc.). Yet his example of liberal focus on problems beyond the poor's control does not imply a focus on *exteriorities*, but rather *externalities*. In contrast to *social-conservative* focus on interiorities, *pro-market conservatives* de-emphasize the problems with market *externalities*, not market exteriorities, which can lead to higher inequality of opportunity and income.

In my integral political-economy approach (Bowman, 2010a, 2010b, and 2011), I make consistent use of the interior-exterior, internal-external, higher-lower, individual-collective, and positive-negative dualities. In Bowman (2010a), one value in decomposing positive and negative internalities and externalities was to show that pro-market conservatives often emphasize positive market externalities (like trickle-down economics) and de-emphasize negative market externalities (like pollution or financial contamination from overly risky private leveraging). It is just the reverse for pro-government liberals. So the root disagreement may really be their well-known disagreement around the private-sector/public-sector duality.

Now moving to integral math, even by Wilber's own admission there are inconsistencies with IM.<sup>11</sup> In a footnote, Wilber (2006) writes:

Also, 'the inside and outside of the singular and plural' technically are not the same as 1<sup>st</sup>-, 2<sup>nd</sup>-, and 3<sup>rd</sup>-person approaches or combinations thereof, and some severe theoretical problems result if this equation is made. We sometimes use 1-p and 3-p to represent inside and outside views, but this is a concession to popular understanding and not the actual definitions. The quadrants (inside/outside x singular/plural) are much more fundamental and prior differentiations in Kosmogogenesis than are 123p (and, in fact, generate them). (p. 42)

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<sup>11</sup> Integral mathematics is not a mathematical system; it is a notational system. At least as he specifies them, one cannot perform mathematical operations upon the elements of Wilber's abbreviated terms. Bowman (2008) presents an actual mathematical model for an integral approach to economic growth and development.

According to this article's previous section, first-person and third-person views do relate closely to inside and outside views (what I call internal and external views), but only from the perspective of the first-person. Wilber's inconsistent uses of interior-exterior as sometimes interchangeable with internal-external force him to write the imprecise qualification in the above passage. There, Wilber simultaneously refers to his standard quadrants (interior-exterior x individual-collective) and to an alternative quadrant set (internal-external x individual-collective) as interchangeable, which is inappropriate. Thus we do not really know what Wilber's use of a first-person perspective really means. Is it an internal or an interior perspective?

Apparently both. Consider the following (Wilber 2006):

Using shorthand of 1<sup>st</sup> person (for the inside in general) and 3<sup>rd</sup> person (for the outside in general), then introspection, let's say, which is a type of phenomenology (or zone-#1 activity), is when 'I look into my mind'-or, I have a 1<sup>st</sup>-person experience of my 1<sup>st</sup>-person awareness, which we would write as 1-p X 1p. (p. 40)

All of the "p's" relate to person perspectives. On the next page:

In integral math, when we use 3 terms, such as 1p X 1-p X 3p, those terms are usually: quadrant X quadrivium X domain (and "domain" can be a quadrant or a quadrivium). (p. 41)

Wilber (2006, p. 253) defines quadrant and quadrivia. "A quadrant is a subject's perspective; a quadrivium is the perspective the object is being looked at from." Not only do all the "p's" represent some kind of person perspective (first person = 1 and third person = 3), but fundamentally, every term in his IM (as initially presented in *Integral Spirituality*) is a person perspective without direct reference to a quadrant, quadrivium, or domain zone unless it can be gathered from a person perspective. What Wilber seems to mean in the (p. 40) passage above ("I look into my mind") is an internal view of an interior awareness, which are both described as first-person. How would he handle 'his look into his mind'? He would need to call this a third-person perspective, because it is external to the speaker and person spoken to. Yet he would also need to specify the view as 'interior to him' to differentiate it from an 'exterior aspect of him.' But Wilber always reduces third person to external *and* exterior.

I much prefer Wilber's notation, which omits person perspectives, and instead specifies Kosmic address concretely by quadrant, level, line, state, and type for subject and object. This is done much later (and much less frequently) in *Integral Spirituality* (pp. 264-266). This notation is the type that can be more readily updated with the insights from HFT (such as using eight zones rather than four quadrants for both the subject and the object, including relevant secondary methods from subject to object, and tracking bilateral drives between object to subject not necessarily consciously perceived by the subject).

The inconsistencies with these integral lenses seem to affect Wilber's choices of examples when describing IMP. With his first published introduction of IMP and IM, Wilber (2006, p.36) writes, "I can approach the 'I' from the outside, in a stance of an objective or 'scientific' observer." He then provides two examples of what he will call structuralism. "I can do so in my own awareness when I try to be 'objective' about myself, or try to 'see myself' as others see

me.” Call this *case A*. Wilber goes on, “and I can also do this with other ‘I’s’ as well, attempting to be scientific in my study of how people experience their ‘I.’” Call this *case B*. He then states, “the most famous of these scientific approaches to I-consciousness [cases A and B] have included systems theory and **structuralism**” (boldface is his, bracketed items are mine). So both examples, cases A and B, are meant to describe structuralism.

According to IMP as embedded in ISP, Case A would be categorized as phenomenology rather than structuralism. Notice that viewing *my ‘I,’* meaning the individual-interior, *from the outside of me* is not possible in ISP, because by definition, my individual-interior is internal to me as an individual holon, unless data is objectified *and* externalized such that it can be observable to the subject from the external source. Internal to me, however, I *can* view my individual-interior as an object rather than it only being the subject of my awareness. This is the scientific methodology of meditation and phenomenology (not structuralism). Wilber refers to structuralism as the “scientific study of how people experience their ‘I’s,’ which is described as follows (Wilber, 2006):

The basic research went essentially like this: Pose a series of questions to large groups of people. See if their responses fall into any classes. If so, follow those classes over time and see if they emerge in a sequential order of stages. If so, attempt to determine the structure or makeup of those stages. (p. 53)

Consistent with this description, but more specifically, structuralism in ISP is the study of interior-individual objects as they appear to the external scientist. *Phenomenology* is described by Wilber as “a 1<sup>st</sup>-person having a 1<sup>st</sup>-person experience.” The experience is indeed first-person to the one having the experience or describing their own experience. When contrasted with his structuralism examples, however, what Wilber is left to mean is an inside (internal) view of the (subjective) interior-individual where the awareness is not made an object (otherwise it would be his case A example of structuralism, which I have already reclassified as phenomenology, when “I try to be ‘objective’ about myself”). But in this example (“a 1<sup>st</sup>-person having a 1<sup>st</sup>-person experience”), awareness is not necessarily made an object by the subject experiencing it. Therefore, it does not qualify as a broad science because it may not be reproducible by an adequately embedded scientist who could perform an injunction that elicits the object in a detached form. The phenomenology class (including meditation, contemplation, and so on) provides procedures for one to attempt to examine individual-interior content internally and scientifically. If you want to witness your thoughts with a certain degree of control, you can perform meditative practices to train your state experiences, for instance. (According to ISP, Wilber’s case B example does properly match structuralism in his IMP classification system).

Clear differentiation of the integral lenses in ISP helped me spot or explain the inconsistencies or difficulties in Wilber’s IMP examples and in his use of integral mathematics. Wilber’s preference for subject to object views without genuine bilateral interaction relates to the Bhaskarian claim that integral theory suffers from the epistemic fallacy as described in the next section.

## Epistemic and Ontic Fallacies

Epistemology is the study of knowing and justified belief. The eight subject realms of integral scientific pluralism represent an integral epistemological pluralism and provide eight different aspects of knowing or apprehending by level. Integral ontological pluralism is represented by the eight object realms, which are eight aspects of ontology (the study of the categories of things that exist or may exist in some domain). Lastly, the eight action realms provide an integral methodological pluralism with its eight classes of methodologies (where methodology is the study of methods applied within a discipline). This is one way of using the ISP realms. The fractal quality does not limit ISP realms, however, to placing only the scientist within the subject realms and his object of study in the object realms (recall that the object of study also has a subject view and ISP in its entirety is a new methodological tool).

A dialogue has begun between integral theorists and critical realists especially in the wake of the 2011 Integral Theory and Critical Realism Symposium. Marshall (2012) and Hedlund-de Witt (2012) both claim that integral theory suffers from what Bhaskar, the founder of critical realism, calls the epistemic fallacy. This is an erroneous belief that “statements about being can be reduced to or analyzed in terms of statements about knowledge” (Bhaskar, 1975/2008, p. 36). In defense of integral theory against this argument, Wilber (2013) argued that this improper charge derives from critical realism’s ontic fallacy, or the myth of the given, where ontology is privileged as real and epistemology is then derived from ontology. Hedlund-de Witt (2012), for example, states that critical realism “argues for a world composed of objects (generative mechanisms) existing *independently* of human knowledge, enactment, or discourse.” The implication is that objects exist independently of any non-human rudimentary form of knowing or enacting.

According to Wilber, ontology, methodology, and epistemology are three different, but intertwined aspects of reality and none can be privileged. Given that integral theory is panpsychic (or pan-interiorist, the term Wilber’s prefers), even prior to human conceptions of reality, reality is always co-created by the interiority of holons. The prehending (proto-knowing, proto-feeling, proto-conscious) atom, for example, in some way recognizes other atoms in order to interact with them. There is not a being (ontology) separate from a knowing (epistemology). The lack of privileging subject and object is embedded within integral scientific pluralism and holarchical field theory. Therefore, I side with Wilber on this point. Yet there is a difference I would like to make between Wilber’s integral theory in general, and his common applications as with his use of integral mathematics. Wilber’s use of integral mathematics does privilege the subject’s perspective in its enactment of the object. As described above, there is no analysis of drives emanating from object to subject. There is no causally efficacious effect on the subject from its environment separate from the perspective the subject takes. Holarchical field theory overcomes these problems and is truer to the interrelations of epistemology, methodology, and ontology. This is one reason why it is important to ground perspective taking within a broader array of action between holons within fields.

## Conclusion

Holarchical field theory (HFT) was used in this article to clarify some applications of Wilber's integral mathematics, his first formal attempt at analyzing relations among holons. HFT helped to disclose and overcome inconsistencies or reductionisms involving the interior-exterior, internal-external, and subjective-objective dualities. These dualities all become more formally included in ISP and HFT while improving upon the internal consistency of the Wilberian literature. HFT therefore provides a particular response to Edwards' call to question the consistency and logic of a metatheory (2010, p. 81).

The specification of the philosophical/grammatical conflation, where theorists confuse the dual definitions of the subjective-objective duality was particularly useful for constructing, interpreting, and using HFT. This theory opens the realms of integral theory for easier dissections by other dualities, triads, and spectra in the future. In order for a new duality, for example, to be applied generally to HFT, one must cross the ISP realms with the duality and would need to convincingly show how the two poles consistently and logically show up in each of the existing realms. The distinctions should apply to the multiple levels in order for it to be generalizable like HFT. And static and dynamic elements per pole should be specified. Alternatively, one may find it useful to cross a new duality with a subset of the dualities, spectra or triads that currently exist in HFT without generalizing the result as far beyond the given use.

This article contributes to the topic of integral communication (Leonard, 2011) with the distinctions made between state and action language using HFT realms and drives along with the corrected uses of perspectives and pronouns. State language tends to be describing holarchical embeddedness of subjects and objects and action language tends to describe the dynamics in the interacting fields of subjects and objects. Person perspectives and pronouns cannot be reduced to AQAL or HFT realms without qualifications.

Integral scholars and trainers of Wilberian integral theory for integral consulting, integral life practice, and integral psychotherapy may benefit from analysis of themselves, students, clients, patients, or their objects of study as agents embedded in relations with their environment and potential within holarchical fields. Policy analysts using integral political economy and integral ecology, for examples, may also benefit from situating stakeholder groups or ecological units in dynamic exchange using HFT.

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## Appendix: ISP and HFT Communication as an Instructional Example

In this section, I will use a new, elaborate example to illustrate the realms and drives of HFT as they relate to human interaction and communication. This may help the reader consider the complexity of interaction as described by HFT. This is in comparison to current, but narrow and problematic uses by integral theorists to characterize interaction of holons explained in the body of this article.

Consider my interaction with a colleague who is in another academic department at my college. We each can be analyzed as our own subject at the center of our own Figure 1. As humans, Americans, academics, and coworkers; we share certain, but not all, aspects that are initially internal. Say that we have a conversation and by the end, she and I both understand what she generally means by her excitement for an upcoming holiday break from her grueling semester to enjoy a barbeque gathering. This may imply that I understand her feeling of excitement (a zone 2 object to me since it is an individual interiority that is external to me) under cases in which she is physically worn (a zone 6 object to me because it is an individual exteriority external to me) because of my understanding of excitement (a zone 1 object to me) and because I have been worn or can imagine it to a degree from my experience or internalization of other's having similar difficulties (a zone 5 object). And I can relate to the systemic pressures that force her to work that hard (a zone 8 object) as I have been in that situation or internalized this issue from observation (zone 7). I also understand the cultural meaning she attaches to sharing a holiday barbeque with her friends (a zone 4 object) as I do too (a zone 3 object).

I understood these objects implying that they are disclosed and enacted into our subjective awareness during our conversation. I may be motivated by a desire to belong in a community

with my colleague. This need energizes me to engage the employed drives. Some of the methods used to disclose and enact them have been the use of the English language (a method from zones 7 and 8) intentional thinking, listening, speaking, symbol translation (methods of zones 1 and 2); physical hearing, talking, seeing (methods of zones 5 and 6); and clarifying questions for agreement on definitions or to disclose missing context (methods from zones 3 and 4).

Here, I will track the six general horizontal dynamic drives involved. I exteriorize my thoughts into words effectively because I choose words that allow her to understand my thoughts. Her ideas become internalized into my interior through her creation of vocalized words, which vibrate into my exterior ears. I meanwhile put in the effort to interiorize them into comprehensible thoughts. The collectivization drive was involved in choosing to engage each other. This drive and successfully communicating helped me, especially, to satisfy my belongingness need. My willingness to correct her misunderstanding of one of my comments includes the individuation drive to properly honor my individual perspective and the collectivization drive so that we understand each other.

Since we initially shared (epistemological) skills and employed our methodologies well enough, these objects (ontologies) are understood and can be held in the moment by her and me in our own subjective awareness. There is this overlap in our internal zones of each quadrant such that there is mutual understanding (a zone 3 object for both of us), the content of which relates to all eight ontological zones.

Notice that in this example we clearly differentiate subject, object, and method in each zone. For the analysis of dynamic interactions, the current state of integral theory fosters, at worst, ad hoc and confusing work; or, at best, skillful, but opaque means. The example of this section should help the reader see that there are alternatives to existing attempts to analyze action using Wilberian theory. The inconsistencies and difficulties of relying on AQAL in its current state are examined in the body of this article. These problems often stem from confusion among dualities, perspectives, and pronouns.