

Towards an Integral¹ Meta-Studies: Describing and Transcending Boundaries in the Development of Big Picture Science

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Abstract: We are entering a period in human civilisation when we will either act globally to establish a sustainable and sustaining network of world societies or be enmired, for the foreseeable future, in a regressive cycle of ever-deepening global crises. We will need to develop global forms of big picture science that possess institutionalised capacities for carrying out meta-level research and practice. It will be global in that such research cannot be undertaken in isolation from practical global concerns and global social movements. In this paper I propose a general schema, called integral meta-studies, that describes some of the characteristics of this meta-level science. Integral here refers to the long tradition of scientific and philosophic endeavours to develop integrative models and methods. Given the disastrous outcomes of some of the totalising theories of the nineteenth century, the subsequent focus on ideas of the middle-range is entirely understandable. But middle-range theory will not resolve global problems. A more reflexive and wider conceptual vision is required. Global problems of the scale that we currently face require a response that can navigate through theoretical pluralism and not be swallowed up by it. In saying that, twenty-first-century metatheories will need to be different from the monistic, grand theories of the past. They will have to be integrative rather than totalising, pluralistic rather than monistic, based on science and not only on philosophy, methodical rather than idiosyncratic, find inspiration in theories, methods and interpretive frameworks from the edge more than from the centre and provide means for inventing new ways of *understanding* as much as new technologies. Integrative meta-studies describes an open system, inquiry space or clearing that has a place for many forms of scientific inquiry and their respective theories, methods, techniques of analysis and interpretive frameworks.

Keywords: Global crises, meta-data-analysis, meta-hermeneutics, metamethod, meta-studies metatheory, middle-range theory.

¹ The word “integral” is used here to refer to the long tradition of integrative big pictures as exemplified in the work of such figures as Thomas Aquinas, Georg Hegel, Michil Bakunin, Vladamir Solovyov, Pitrim Sorokin, Rudolph Steiner, Jean Gebser, Aurobindo Ghose, Jacques Maritain, Bill Torbert, Ken Wilber, Ervin László, Fred Dallmyr, Ronnie Lessem and Alexander Schieffer.

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Introduction

We are entering a period in human civilisation when we will either act globally to establish a sustainable and sustaining network of world societies or be enmired, for the foreseeable future, in a regressive cycle of ever-deepening global crises. If we are to take the former pathway then we must, as a matter of some urgency, develop and institutionalise integrative and meta-level forms of scientific sense-making. This meta-level form of sense making will complement existing disciplines to establish a multi-layered understanding of science that will have the capacity to take a reflexive perspective on current scientific and philosophical theory building and testing. We will need to develop global forms of big picture science that possess institutionalised capacities for carrying out meta-level research. It will be global in that such research cannot be undertaken in isolation from practical global concerns and global social movements. In this paper I propose a general schema, called integral meta-studies, that describes some of the characteristics of this meta-level science. Integral here refers to the long tradition of scientific and philosophic endeavours to develop integrative models and methods. There are many precursors and formative examples that I draw on in developing the integral meta-studies framework and what I want to do here is present something an overview that can help to situate meta-level scientific and philosophical studies within the current landscape of knowledge quests. Integrative metatheorising is an ambitious project. It is based on the premise that the critical appreciation and integration of diverse theoretical and methodological perspectives offers a new way forward in the development of science. It seeks to find insights through the connection of knowledge rather than the specialisation of knowledge. It takes an appreciative rather than a depreciative view towards systems of knowledge, irrespective of their place within the mainstream or the periphery. The big pictures that emerge from this process stand in contrast to the goals of mainstream social science which are almost exclusively concerned with the building and testing of middle-range theory.

Given the disastrous outcomes of some of the totalising theories of the nineteenth century, the subsequent focus on ideas of the middle-range is entirely understandable. But middle-range theory will not resolve global problems. A more reflexive and wider conceptual vision is required. Global problems of the scale that we currently face require a response that can navigate through theoretical pluralism and not be swallowed up by it. In saying that, twenty-first-century metatheories will need to be different from the monistic, grand theories of the past. They will have to be integrative rather than totalising, pluralistic rather than monistic, based on science and not only on philosophy, methodical rather than idiosyncratic, find inspiration in theories, methods and interpretive frameworks from the edge more than from the centre and provide means for inventing new ways of *understanding* as much as new technologies. Integrative meta-studies describes an open system of knowledge acquisition that has a place for many forms of scientific inquiry and their respective theories, methods, techniques of analysis and interpretive frameworks. We have, in fact, been developing these meta-level capacities and models for a very long time and the time is now ripe for a more overt description and institutionalisation of these perspectives and practices.

The Challenge of Pluralism

The great proliferation in empirical studies that occurred through the 1970s and 1980s brought with it the rise of meta-data-analysis. The sheer outpouring of empirical information, particularly in the health and medical sciences, required a scientific response that could somehow make sense and form some overarching big picture of the mass of data pouring out of journals and scientific laboratories. Gene Glass was one of the pioneers of these early approaches to the integration of empirical findings and he proposed the term meta-analysis to describe the “analysis of a large collection of analysis results from individual studies for the purposes of integrating the findings” (Glass, 1976, p. 3). Glass described the emergence of meta-analysis as follows (1977, pp. 351–352):

By the late 1960s, the research literature had swollen to gigantic proportions. Although scholars continued to integrate studies narratively, it was becoming clear that chronologically arranged verbal descriptions of research failed to portray the accumulated knowledge. Reviewers began to make crude classifications and measurements of the conditions and results of studies. Typically, studies were classified in contingency tables by type and by whether outcomes reached statistical significance. Integrating the research literature of the 1970s demands more sophisticated techniques of measurement and statistical analysis. The accumulated findings of dozens or even hundreds of studies should be regarded as complex data points, no more comprehensible without the full use of statistical analysis than hundreds of data points in a single study could be so casually understood. Contemporary research reviewing ought to be undertaken in a style more technical and statistical than narrative and rhetorical. Toward this end, I have suggested a name to make the needed approach distinctive; I referred to this approach as the meta-analysis of research.

Precisely this situation exists today, for not only research data but, for the multitudinous varieties of theory, methods and interpretive systems that are employed to make scientific sense of the complex worlds we inhabit today. And we need corresponding meta-level schools of scientific research in each of these realms. Indeed, we can see many different forms of these meta-level studies emerging today across all kinds of scholarly outputs. On the theory side we see the emergence of meta-level theoretical frameworks, multiparadigm studies and overarching conceptual models in many social sciences. In the study of scientific research methods we see the development of meta-methods and the associated approaches of mixed and multi-methodologies and with the variety of new epistemological orientations we see the rise of meta-level and general hermeneutics. Together, these overarching forms of analysis constitute a meta-level science and they formalise a way of developing knowledge that has been part of the human story of meaning-making for a very long time. What makes these meta-level disciplines different is that now we can build and test these big pictures from a scientific perspective.

These meta-level studies form a new layer of global research in that they emerge out of the pluralism of diverse views of reality that are present across different cultures, different political and geographical regions different social histories. Where modernistic forms integrative science have attempted to develop unified grand theories and the single big Theory of Everything, the new integrative meta-level approach recognises the postmodern turns towards interpretive,

methodological and theoretical diversity. The goal then is not for a unified grand monism but an open space for pursuing scientific big picture inquiry in which multiple perspectives can be appreciatively and critically considered. Hence, this new meta-level inquiry offers a scientific response to one of the central questions of the 21st century - how are we to develop global conversations around, what Raiman Panikkar call, “the pluralisms of truth” (Panikkar, 1990, p. 16).

... truth is pluralistic because reality itself is pluralistic, not being an objectifiable entity. We subjects are also part of it. We are not only spectators of the Real, we are also co-actors and even co-authors of it. This is precisely our human dignity.

During the twentieth-century we saw a procession of big pictures come and go with some useful insights and advances but also with often disastrous results. In the domains of politics, economics, education, commerce and trade and organisation and management we have seen a litany of big scientific ideas come and then drift off into marginality. While each of them had their partial truths and valid points, overall, when championed as complete and universal schemes of salvation, big pictures have not had a good track record. From Marxism to monetarism, from rational choice theory to marketism, from globalism to the promises of hyper-technologies - all of these big pictures have their respective insights and have resulted in great advances in understanding but they have also resulted in ideologies of various kinds that are fundamentally degrading the environmental, social, economic and intellectual resources of the planet. The human predilection for creating big pictures will continue and will grow even more as we enter further into the age globalisation. Given this, how can we develop and validate our metatheories via a more conscious form of doing science? How can we build a deep science which is integrative, pluralistic, reflexive, and appreciative of contending views rather than specialist, monistic, objectifying and aimed at finding the one true theory or method? Before looking at this I should first discuss a little more about what I mean by science and social science. I argue that meta-studies, or big picture science, will play an important role in the development of planetary culture in the coming decades and so it might be useful to describe in further detail how I view scientific activity and its role in contemporary society.

Science and its Role in Emergent Global Communities

Science is essentially a systematic quest for knowledge and social science is the application of that systematic study to the domain of human experience and behaviour in all its many forms. The development of what we think of as contemporary science has been a global affair. The threads of cultural and technical knowledge and activity that weave together to create science come from many and diverse sources. These include the philosophies of the ancient Greeks, the insights of Islamic scholars, the mysticism of the hermeticists and the alchemists, the genius of individual insights, the technical expertise of artisans and instrument makers, and the natural knowledge of tribal peoples and people of the land³. Although we often associate the

³ I have focused here on some elements of the Western story of big picture building and there are of course similar parallels in non-European cultures. More importantly, the history of the development of big pictures has always been a multi-cultural one and there has been a constant process of cross-fertilisation between cultural, philosophical and spiritual traditions throughout the millennia.

development of science with great figures such as Nicolaus Copernicus, Charles Darwin, Albert Einstein, and Marie Curie, the truly astonishing thing about science is that its basic motivation lies within the human instinct for learning and for understanding.

Science shares with learning the need to explore the new, the desire for development, the drive to find ways of understanding and explaining that solve problems and create new opportunities. As with learning, science is a composite phenomenon. It requires several different involvements to be performed. It requires action as well as thought; it needs to be formally engaged with at the individual as well as the collective level, it demands systematic thoroughness as well as creative insight and it needs to be taken up with dedicated enthusiasm as well as with detached reflexivity. Learning occurs best when we engage with body and soul in the activity of interest and, similarly, science needs to be taken up as a practice as well as a discipline of study.

We can conceive of learning as consisting primarily of the processes of active physical engagement, reflective experience and analysis, cultural meaning-making and social communication. These four involvements are necessary for any learning to occur. Accordingly, science can also be seen as having these four involvements. The engagement of physical activity corresponds with method, that of reflective experience corresponds with the scientist's encounter with data, meaning making is equivalent to interpretive frameworks that scientists adopt to make sense of data and finally, the involvement of communication corresponds to the scientific activity of public communication and the social validation of theory. Each of these aspects of science - method, data, interpretation and theory - are formal requirements for the publication of any scientific paper and, as elements in the definition of science, they remain the bedrock for any systematic explication of scientific research.

The view adopted in this paper is that these four involvements are fundamental to understanding what science is and how it should be practiced. They also present a model for seeing how science can be a more integrative knowledge quest than has often been the case. Methods, data, interpretation and validation are the four arcs that need to be connected in creating a comprehensive cycle for pursuing scientific knowledge. Where any one or more of these arcs is missing or significantly undervalued, the science it produces will have serious blindspots and shortcomings. Science has been rightly criticised as a tool in service of dominant social authorities or as the narrow pursuit for empirical fact or objective knowledge or mechanistic laws. For example, the "interpretive turn" of the 1970s saw science was not taking up the interpretive and reflexive arc of its activities with as much enthusiasm as it might. Critical theorists, philosophers of science and hermeneutics, educators and social activists challenged scientists to question their own assumptions, to look into the meaning-making systems that they often blindly and unconsciously used to make sense of their work. The result has been a reformation in some scientific communities towards a more socially aware and critical form of knowledge quest. In other communities the old reductionisms and partialities continue.

An integral meta-studies regards these involvements as necessary branches for any scientific endeavour and the clearing opened up by this meta-level perspective will formally include at least these four branches of activity. There have been a number of weakness that meta-level studies have suffered from that can be addressed through applying this model of four scientific involvements to its operational structure. First, in the past metatheory has often lacked a strong

methodological base and has subsequently been neglected as a formal scientific activity. Second, it has also been unclear about its data base, and about the nature and role that data plays in building and testing metatheory. Finally, metatheorists typically have not consciously pursued research as a meta-level activity. They regard their work as large and integrative in scope but, because of confusion of the role and nature of their data (i.e. that it comes from middle-range theory), they have not identified their work as metatheoretical or reflexively critiqued their ideas as such. This is evidenced in the practice of metatheorist to use the term “theory” to label their work, for example as in Wilber’s integral *theory* or von Bertalanffy’s general systems *theory*.

On the basis of these considerations, an integral meta-studies as it might be adopted within the social sciences can be described as a knowledge quest that: i) employs rigorous meta-level building and testing methods to, ii) collect middle-range data from subjective, relational and objective sources, and which iii) develops meaning from this data through the conscious adoption of adequate and relevant interpretive frameworks so that, iv) it can communicate its findings through the articulation of meta-level theories, methods, interpretive frames and data-analytical studies. The fractal nature of these structures is evidence in that each of the branches of meta-studies requires the four involvements of method, data, interpretation and theory. These four involvements of the scientific process largely amount to a means for increasing our active and conscious quest for valid and reliable knowledge and for seeing how that knowledge can be utilised towards the inter-generational development of more healthy and more sustaining global communities. As such, meta-level science studies will play an increasingly important role on the global stage and provide crucial resources for addressing the immense planetary crises that we are facing now and will continue to face in the coming decades.

The Allure of the Big Picture

Big pictures are nothing new in science or, indeed, in any tradition of cultural knowledge including philosophy, religion and literature. Big scientific theories and meta-theories are an expression of the human attraction towards tall stories, the epic tale and the drama of storytelling. We are enthralled, mesmerized and attracted to really big stories because they create a means for connecting the past and the future to the hopes and fears of the present. Storytelling allows us to explore the quest to explain and understand what it means to be human and to share that humanity with others. Our physiology, our anatomy and genetic makeup predispose us towards forms of creativity that find patterns in the world around us and that express those patterns in our communications. The narrative impulse lies deep within the human heart and the scientific goal of developing big pictures has its genesis in the sagas, myths, legends, the dreamtime stories, the creation stories, the epics and the heroic tales from which all human cultures have emerged.

The thing about story is that it is abstract. The story is not the event itself and yet stories shape realities as much as they reflect them. We tell a story about a boy who is lost in the forest because he does not follow the beaten path and next time we venture into the forest we make sure we stay on the well-known way. The story - a complete abstraction - feeds into shaping reality. Theories are also abstractions and yet they also shape the bricks and mortar of the real world. Theories of management and organization are used to create factories and management systems that form and direct what is built, how it is built and the social structures and behaviours

that inhabit those spaces. In this sense, stories and theories are as real as any technology. The abstract world or theory and metatheory are as causative in the creation of social realities as money, the weather, gravity, political power or the level of unemployment. Our stories guide us and they inform the visions and actions through which we shape our futures. Big stories and big pictures have a very real, very concrete impact on the physical, emotional, mental and spiritual realities that we inhabit and they are central to the creation our shared futures.

In the age of globalisation, the guiding stories and big pictures that we share (as one humanity) will be central to the path that we take in creating a sustainable and healthy world. And in sharing those stories, we will also be creating a mediating vision and a way of communicating that will connect and bring together the diversity of cultural views, meaning systems, personal insights and traditional wisdoms that we have inherited. The opportunity here is immense and in this unprecedented coming together of forms of cultural experience there is the real possibility of global transformation towards a deeper understanding of who we are and how we might live on this unique and wondrous planet.

The dangers here are also evident. The big pictures that emerge from the current wave of globalisation can also be harmfully reductive, they can also limit our potential, they can distort the natural balances that have taken billions of years to emerge, and they can reproduce false, partial and dehumanising visions in our individual and collective identities on a global scale. Roy Bhaskar (Bhaskar, 2002a) has talked of the damaging domination of such ideologies and the demi-reality of imbedded social ills that result from them. Bhaskar also stresses this capacity of social science and particularly of metatheoretical science to adjudicate on the half-truths and false forms of knowing and acting that emerge from this “demi-reality” of entrenched ideologies. Bhaskar says that (2002a, p. 55):

The task of social science is to penetrate that demi-reality through to the underlying reality and situate the conditions of possibility of the removal of illusion, of systematically false being. (emphasis in the original)

One means for the removal of systematically false being and doing is through critical reflection upon our underlying big pictures. And if the social sciences have any core task to fulfill in 21st century it is this task of developing critical metatheories and overarching systems of ideas that can comment on the partialities of predominating views.

Big Thinkers and their Big Pictures

I have said previously that big pictures are nothing new to science. Philosophy, of course, has always had its big picture thinkers. Plato developed his big pictures as an attempt to integrate the many different perspectives that people can take towards life. He explored the general principles from which we could use rationality to understand and explain our experiences. Plato took a universalising approach to building big pictures. Aristotle, on the other hand, developed big pictures that focused on the details of what he observed in nature. His was a particularising approach to the construction of knowledge. With the emergence of the proto-scientific worldview in 13th century Europe we also find that big picture thinking was of crucial importance. In the mediaeval period, the attempt to build unified accounts of the natural and the

supernatural - the world of reason and the world of faith - was a definitive aspect of the Scholastic enterprise. By the time we get to the late mediaeval period there is literally an explosion of synthesising activities that draw connections between, for example, the Greek philosophers, the hermetic traditions, astrology, the various theological disciplines and contemplative writings (Gaukroger, 2007).

The Franciscan monk Roger Bacon (c. 1214–1294) is an eminent exemplar of this kind of overarching and synthesising big picture building activity. But Bacon was also more than this. He was one of the first to deliberately and consciously seek out a way of connecting ideas about the natural world in an overarching framework that was also grounded on physical evidence. Bacon was a polymath of great genius and his major work contains “treatments of the positions and sizes of the celestial bodies, and anticipates later inventions such as microscopes, telescopes, spectacles, flying machines, hydraulics and steam ships” (Wikipedia, 29 June 2009). Bacon was also an empiricist in that he held that rationality alone could not confirm the truth of an argument. He said that “Reasoning draws a conclusion, but does not make the conclusion certain, unless the mind discovers it by the path of experience”. Yet he also attempted to develop a “universal science” and as James Blish contends, he was the first to develop “a theory of theory” (Blish, 1982).

The instinct for developing big pictures has an ancient heritage and this tradition leads all the way down from the unknown storytellers of distant times through the Greek philosophers, the scholastics and the synthesisers of the Renaissance to Leibniz, Goethe, Hegel, Marx, Parsons, down to the present big picture thinkers like George Ritzer, Ken Wilber and Roy Bhaskar.⁴ This is not to say that the form and substance of these big pictures has not changed. There have been many varieties of big pictures in the arts and literature, in religion and spirituality, in political visions and in philosophy. But now, as we enter a period of intense globalisation the need for a particularly scientific approach to building big pictures is becoming more urgent and the development of truly meta-level forms for doing science will be a central aspect for scientific framework in the 21st century. It is to this question of a specifically scientific approach to big picture metatheorising that this course is addressed.

The Science of Metatheorising

Metatheorising is the attempt to ground big picture models on extant scientific theory. It is not a philosophical process of working from first principles. Rather, it is a scientifically grounded activity of developing overarching views from the integration of other respected sources of valid cultural knowledge and verified streams of scientific research. Metatheory is essentially the study of other theory and its uses middle-range theory as its source of data. As the great metatheorist of sociology, George Ritzer, says, “A metatheory is a broad perspective that overarches two, or more, theories” (Ritzer, 2006b, n.p.).

From this perspective Ken Wilber's AQAL metatheory is not so much a philosophy but a metatheory. Wilber does not work from first principles to derive a philosophical framework for considering the basic questions of existence. He does not start with questions such as: What is an

⁴ See Footnote 3

object? What does it mean to see colour? Is there a God? How do we know things? Rather, from the very beginning, Wilber's approach has been to consider the range of extant theories, philosophies and cultural viewpoints and, through finding connections between these existing perspectives, build a meta-theoretical framework that situates extant approaches within a much larger and more integrative conceptual system. This is a metatheoretical approach and not a philosophical one. Wilber has been at considerable pains to highlight the fact that his understanding of, for example, human development is not a philosophical approach but is based on empirical findings from many different psychological theories of human growth.

Locating AQAL metatheory within the tradition of scientific big picture building has many advantages. First, it accords us with the possibility of seeing how AQAL is not an isolated example of philosophising by an individual thinker but is an example of a tradition of metatheorising that has been an essential part of social science research. Second, it enables us to be self-critical and to develop a means for evaluating metatheory in general, and AQAL metatheory in particular, according to evidence-based arguments. Third, in situating AQAL within a scientific tradition we can begin to describe scientific methods for performing the type of big picture and metatheoretical research that AQAL belongs to.

Types of Meta-Level Research

Metatheorising can be done within or across any set(s) of disciplines. In this sense it is independent of the scale of the research domain. Integrative metatheorising can be performed across the variety of intra-, multi-, cross-, inter-, trans-, and post-disciplinary projects. Each of these is attempt to respond to the issue of complexity and pluralism of theories, methods and forms of analysis that all researchers face (see Figure 1).

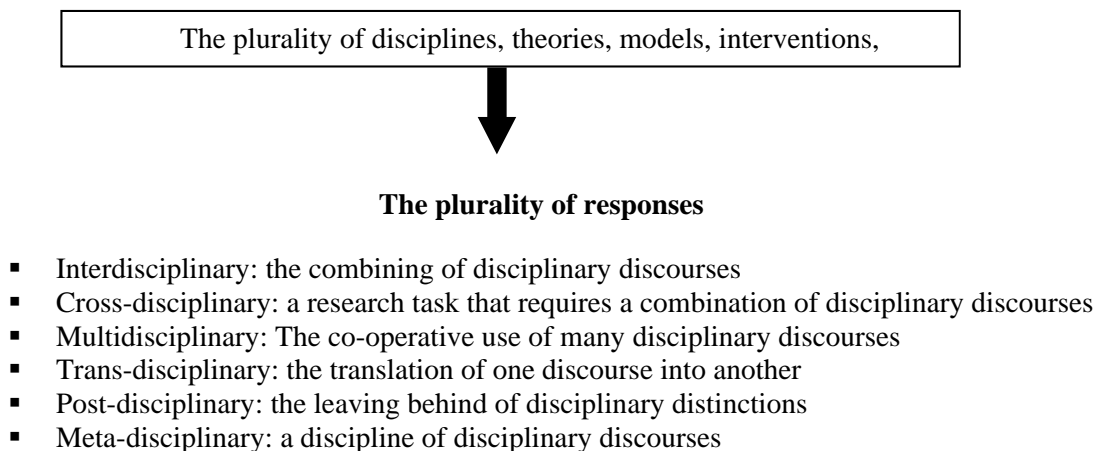


Figure 1: Responses to Theoretical Pluralism

Some metatheorists focus their attention within a relatively limited domain, as in, for example Terence Love's metatheorising on design theory (Love, 2000), while others attempt to build overarching systems across a large range of disciplines, as we see for example, in Wilber's AQAL. Whatever the scope may be, there are four basic aims for carrying out metatheoretical research (Colomy, 1991; Ritzer, 2006b) and they are:

1. Metatheorising for understanding (M_U). Here extant theories are reviewed to gain a familiarity and understanding of their core characteristics and those of the research programmes, paradigms and disciplinary contexts in which they might be located.
2. Metatheorising for preparing new middle-range theory (M_P): The purpose of M_P is to review and analyse theories so that a new theory can be developed within that domain (Turner, 1990). Most metatheorising falls within this type. In fact, most research begins with metatheorising of this kind in that the current landscape of theoretical perspectives is introduced that summarise to identify opportunities from new conceptual contributions.
3. Metatheorising to build overarching theory (M_O). M_O is metatheory building. Its aim is to review and analyse extant theory in some domain and to build a metatheoretical system that accommodates and integrates those theories (see, for example, Witherington, 2007). Hence, M_O always involves M_U .
4. Metatheorising for adjudication (M_A). M_A develops or uses M_O for evaluating other theories in a particular field. The capacity to assess and critically analyse other theory is a quality that all metatheoretical frameworks possess (see, for example, Abrams & Hogg, 2004).

These varieties of metatheorising are most prominent in fields and in branches of science where there are many contending theories and research paradigms. Consequently, because they are highly contested fields with diverse theoretical and paradigmatic positions, it is probably true that metatheoretical research would contribute significantly to the development of any of the social sciences. The difficulty with this situation is that this immense diversity and contention creates fragmentation and the narrowing of research interests, the constriction of conceptual viewpoints and a reluctance to step outside of one's own paradigmatic boundaries. As Lewis and Kelemen explain (2002, p. 253)

... researchers have produced an explosion of varied, often contentious approaches. Modern and postmodern stances, for example, offer contrasting positions in the paradigm debate. ... Such theoretical diversity may enrich understandings of pluralism and paradox. Yet polarisation of modern paradigms and ruptures between modern and postmodern stances inhibit researchers from tapping this potential.

And so the great potential for metatheoretical studies to create new vision is for science has been vastly underutilised. Consequently, metatheoretical studies has a collaborative and formalised approach within the mainstream of scientific research has not been developed anywhere near the extent that it might be.

The Neglect of Method

The neglect of method is perhaps the most obvious limitation that currently besets metatheoretical research. Traditionally, metatheorising has been performed by individuals with little more than their intellectual passion to guide their sifting and analysing of theories. Although, as Ritzer (1991), Skinner (1985) and others have pointed out, metatheorising is an extremely common preliminary activity in research, it has never been formally recognised as such. Metatheorising is still large done surreptitiously or seen as the poor cousin to the real scientific task of theory testing. One reason for this devaluing of metatheoretical research has

been the lack of formal research methods for carrying out meta-level research. But this situation is changing. As scholars are exposed to the immense diversity of conceptual orientations and cultural perspectives emanating from all corners of the globe, it is increasingly important that overarching theorising is grounded on firm methodological bases. Now, more than ever, metatheoretical study needs to adopt systematic methods, relevant and sensitive research designs and rigorous forms of analysis.

I have written in some detail on the weaknesses of the methodological approach used by Ken Wilber and the great majority of other metatheorists in the development of their overarching frameworks (Edwards, 2008a, 2008b). Briefly, Wilber and many other metatheorists rely on traditional scholarship methods of essentially reading a broad, but ideosyncratic, selection of writings and research and then making of it what they will according to their own assumptions and predilections. This traditional approach is not adequate if metatheoretical research is to be taken seriously as a form of social science research. Metatheorising can and should be done as a rigorous and methodical research activity and that AQAL metatheory needs to participate in this process if it is to be truly grounded in the scientific tradition. Until that time, AQAL metatheory will remain the visionary creation of one thinker and corroborating evidence for its framework of quadrants, levels, lines, types and states will remain anecdotal at best. This is, perhaps, the most forceful reason for the lack of acceptance for metatheorising, and particularly for AQAL metatheory, across mainstream higher education institutions and their constitutive disciplines.

Where metatheorising has been performed under standard research conditions, the result has been more favourable. Bill Torbert's research and his description of the Developmental Action Inquiry (DAI) metatheory has met with considerable attention and recognition within the domain of organisational and leadership studies (Rooke & Torbert, 1998; Torbert & associates, 2004). One of the unique aspects of Torbert's research is that it has included metatheoretical, theoretical and empirical domains of activity. And uniquely, at least within the domain of organisational research, his metatheory has been developed from the ground up. Still, much of Torbert's work in the meta-level domain has lacked a methodical approach to building metatheory. There have however, been some isolated and sporadic attempts to develop such a method in the work of Marianne Lewis and her colleagues is noteworthy in this regard. Researching within the multiparadigm theory building approach of Gibson Burrell and Gareth Morgan (Burrell & Morgan, 1979), Lewis has developed metatriangulation method for metatheory building and this will also be a topic of discussion in later weeks. This tradition of multiparadigm research within organisational studies is a particularly important example of how metatheorising can contribute to a field and the contributions of this stream of metatheoretical research is only just starting to be tapped.

An Integral Metastudies

So far I have only been referring to metatheory, so where does metastudies come into all this. Obviously, the building of theory constitutes only one part of a much larger process involved in the creation of scientific knowledge. There are at least four major strands to the development of any form of learning and knowledge acquisition and these are method, data, interpretation and validation. Theory building comes mostly under the social validation of scientific propositions and models. Consequently, there is the possibility, not only of *metatheorising*, but also of meta-

methodology, *meta-data-analysis* and *meta-interpretive* studies (or *meta-hermeneutics* as it will be called here). Each of metastudies can involve an integrally-informed approach to understanding our world and how we might live in and care for it.

These forms of metastudies are specifically called “integral” for several reasons. First, they follow in the tradition of big pictures thinkers who have specifically used the term integral to refer to their particular systematising approach. There are several streams of scientific and philosophical metatheorising that come under this rubric and they stretch back some hundreds of years into 18th and 19th centuries. Multiparadigm studies (Lewis & Kelemen, 2002), various streams of integral research (Jeffries, 2005) and transdisciplinary studies (Fine, 2007) are a few of these lines of meta-level research. Second, integral metastudies is singled out by its capacity to move between small and large-scale domains. An integral approach moves within and between disciplines and attempts to discover connecting patterns at multiple scales of research from the very specific to the very general. In doing this however, an integral metastudies still retains some concept of a specific domain in which it has validity and applicability. Third, this form of metastudies is integral because it relies on other integrative metatheories such as the AQAL and DAI frameworks and uses them as metatheoretical resources in its research.

Formal science is predominantly associated with the empirical testing of ideas more than with their initial construction or inspiration. The vast majority of scientific research is about rearranging existing theory to develop a conceptual model for generating hypotheses that are then empirically tested. Relatively little programmatic research goes into theory building. Testing a theory involves a complex mixture of design, method, data collection, analysis and interpretation. Theory, method, data and interpretation are the four walls within which we review the details of scientific evidence. In the same vein, to develop overarching forms of scientific investigation, we need to critically review theory to build metatheory, review methods to develop meta-methods, review data to perform meta-data-analysis and review interpretive systems to create meta-hermeneutic models. While meta-data-analysis has been developing quickly within the medical and health sciences since the 1970’s, each of the other meta-level branches of study is in very early stages of development and the process of bringing them together to describe a system of meta-studies is only just beginning to emerge.

Drawing on some formative descriptions of disciplinary based meta-studies, in the following pages I sketch out the possibility of an integrative meta-studies that could have application across many forms of social science. From the discipline of sociology Shanyang Zhao describes a general structure of meta-studies as a second-order form of research that “transcends or goes beyond” other forms of study (1991, p. 378). Zhao’s general meta-studies includes “metatheory”, “meta-methodology” and “meta-data-analysis”. From the field of qualitative health research Barbara Patterson and her colleagues describe a meta-studies that entails the analysis and “scrutiny of the theory, method, and data of research in a substantive area” (Patterson, Thorne, Canam, & Jillings, 2001, p. 5-6). Discussions of meta-hermeneutics (Colby, 1987; Habermas, 1983), meta-methodology (Chandler & Torbert, 2003; Karlsson & Wistrand, 2006) and the burgeoning field of meta-(data)-analysis (Glass, 1976) can also be included in the mix. From these and other meta-level analyses of the major families of social science research (Denzin & Lincoln, 2005; Esbjörn-Hargens, 2006; Mingers & Brocklesby, 1997), I believe it is possible to map out a structure for an integrative meta-studies in which metatheory, meta-method, meta-

data-analysis and meta-hermeneutics all play their part (Edwards, 2008b). We have then the possibility of recognising and developing not only integrative metatheories but also integrative forms of meta-methodology, meta-data-analysis and meta-hermeneutics. Together, these meta-level investigations constitute an integrative meta-studies – the science of integrating knowledge from the mutualising worlds of theory, method, data and interpretation (see Figure 10.1).

There are already innovative examples for several of these branches of integrative meta-studies. Wilber's AQAL and Torbert's DAI are examples of integrative metatheories. But these scholars have also produced perhaps the two most detailed examples of integrative meta-methodologies. Wilber's Integrative Methodological Pluralism (IMP) provides a framework for describing eight irreducible categories of research methodologies (see Esbjörn-Hargens, 2006). Wilber proposes that all research methods can be located within these eight categories (Wilber, 2006). Torbert proposes a meta-methodology derived from three lenses - time, perspectival practice and perspectival voice. As with his metatheory, Torbert's central goal in proposing his meta-methodology is not to categorise methods in an overarching framework but to inform and broaden a researcher's immediate world of transformational inquiry. The focus is on mapping many methods into an action oriented process of discovery. Where Wilber seeks to formalise a meta-level, big picture that can situate other methods, Torbert wants to expand the practice of research inquiry itself. In many ways the two approaches complement each other.

There have also been integrative innovations in the meta-data-analysis area. Meta-synthesis is an integrative approach to meta-data-analysis that has been recently developed to collate findings from qualitative research studies in health (Sandelowski, 2006; Thorne, Jensen, Kearney, Noblit, & Sandelowski, 2004). All this suggests that meta-level studies are being pursued within isolated sub-fields and that there is an opportunity now to bring these meta-level inquiry systems into a more coherent overview. It is important to distinguish between and forms of meta-studies that are distinctly *integrative* and those that are more localised in character. Research in any of these meta-studies activities becomes integrative when it: i) is consciously and explicitly performed within an appreciative context that can move across and within various disciplines, ii) adopts systematic research methods and principles, iii) uses, as conceptual resources, other integrative frameworks such as Wilber's AQAL, Bhaskars's meta-reality (Bhaskar, 2002b), Torbert's DAI (1999), Schumacher's system of knowledge (1977), Nicolescu's transdisciplinary studies or Galtung and Inayatullah's (1997) macrohistory, and iii) is characterised by its inclusiveness and emancipatory aims.

Figure 2 maps out a simplistic structure for an integrative meta-studies. Meta-level researchers can, of course, move across all of these branches of studies, but usually both individual researchers and their paradigm-based communities of inquiry tend to specialise in one or two domains. Metatheorists are very rarely meta-methodologists (Paul Meehl being a prominent exception to this, see for example, Meehl, 1992). Practitioners of meta-hermeneutics (including many postmodern interpretivists) are wary of entering the territory of metatheory (even though their meta-level discussion assumes the existence of such territories). There are also strong barriers between the meta-level and the middle-range level of research, for example between middle-range theorists and metatheorists.

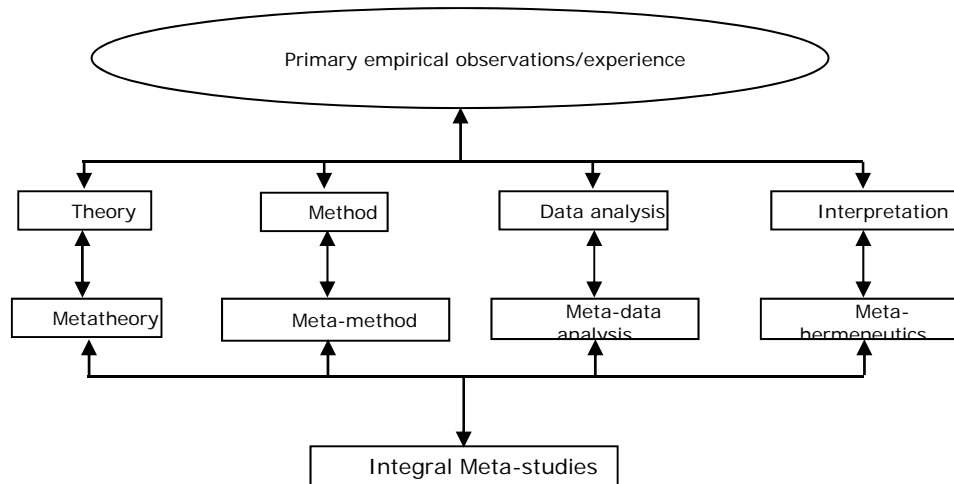


Figure 2: The structure of an integral meta-studies
(reproduced with permission from Edwards, 2010)

An interesting feature of this map of scientific territories is that researchers from one domain often have limited understanding of the contributions from other domains. So when researchers make forays into foreign domains problems can arise in, for example, their claims about the veracity or usefulness of those other branches of knowledge. We see this when theorists denounce metatheorists for being too abstract, or when meta-interpretivists (postmodernists) assure us that metatheory is impossible or always hegemonic, or when metatheorists makes factual claims about the world of empirical data.

Metatheorising can also encroach on the territory of other branches. For example, metatheory building is based on the analysis of extant theory and does not deal directly with empirical data. Consequently, it cannot validly make conclusions about empirical data based on its metatheorising (that is the task of meta-data-analysis). If it does so, it is stepping outside its realm of expertise. To put this in another way, metatheory is primarily about other theory and not about the prediction or evaluation of first-order empirical data. As Ritzer (2006a) has pointed out, it is entirely possible and, in fact, desirable that middle-range theory be developed from metatheory (this is Ritzer's M_p). But in doing that, the new middle-range theory will require empirical testing. Metatheory can be used to develop metaconjectures about empirical events but these will then need to be evaluated through middle-range theory testing or meta-data-analysis.

Conclusion

The “so what!” in all of this is that, in recognising the wonderful diversity of activities that contribute to the rich pluralism of contemporary social science, we also need to find patterns that connect that diversity. Finding metapatterns (Volk, 1995) needs to accompany other important tasks such as recognising the messiness of social science (Law, 2004), giving space to the individual voice (Gergen, 1998) and the power of specialisation and reductive methods. The science of big picture pattern finding needs to be based on scientific evidence and not only on the individual insights of isolated scholars or creative visionaries no matter how enthralling their visions may be. Creativity has many sources. The idiosyncratic revelations and understandings

that have traditionally been associated with metatheorists and polymaths down through the ages are not enough to establish a truly integral meta-level science. Integral metastudies is my attempt to describe the rudimentary outlines of a formal scientific program that is specifically aimed at constructing and testing overarching visions of existence. In providing a meta-perspective on what scientists do, this new domain of integral metastudies will also provide opportunities for a more reflexive and systematic and critical approaches to developing big picture forms of social science.

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