Where Is the Method to Our Integral Madness?

AN OUTLINE FOR AN INTEGRAL META-STUDIES

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Integral metatheory does not currently employ any formal research method for developing or evaluating its frameworks, propositions, and knowledge claims. As is the case with almost all other metatheory, Ken Wilber's AQAL framework has been developed according to a creative and idiosyncratic mix of personal insight and traditional scholarship. The AQAL conceptual lenses, their relationships, and the AQAL metatheoretical system, which they constitute, are largely the result of one man's analysis of extant scientific and cultural knowledge. It may be expert analysis that is based on traditional methods of scholarship, but that informal approach needs to be augmented and evaluated by more rigorous and transparent methods of research. More importantly, those methods need to be developed and applied by communities of researchers, practitioners and scholars who are aware of, and competent in, the methods and techniques of metatheorising. The purpose of this article is to show why this is an important issue in the future development of Integral metatheory and to contextualise the absence of a formal method within a general framework for describing an integral meta-studies. The importance of method is discussed within an integral cycle of learning model that shows why method plays such a crucial role in metatheory building and in scientific disciplines in general. An overview of integral meta-studies is presented to contextualise the discussion of method.

> Neither science nor rationality are universal measures of excellence. They are particular traditions, unaware of their historical grounding.... Yet, it is possible to evaluate standards of rationality and to improve them. The principles of improvement are neither above tradition nor beyond change and it is impossible to nail them down.
>
> —Paul Feyerabend[1]

Introduction

This article outlines an argument for scientific method in integral metatheory building.[2] The intent here is to raise awareness about the urgent need for rigorous methods of research to be used in the construction, modification, and evaluation of integral metatheories such as AQAL. That being the case, it may seem odd to open with a quote from one of the most ardent critics of scientific method, Paul Feyerabend. Feyerabend was not, however, against any method. It was more that he wanted to humanise *how* science was done; to shake up the view that science is some kind of process line that takes in confusion and ignorance at one end and produces fact and incontrovertible truth at the other. Feyerabend wanted us to recognise the inherent creativity within method. As he put it, "the only principle that does not inhibit progress is: anything goes."[3] I take this to mean that humans discover and understand themselves and their world best when they play. The interesting thing, though, is that method is evident even in playful acts: "You count to ten and I'll search." All creative narrative involves method: "Once upon a time, in a land far, far way.…" Method is a definitive characteristic of life. When we make an argument, learn a song, go hunting, search for our car keys, or bake a cake we do so, at least to some

degree, methodically. And our methods can always be improved. As Feyerabend says, "it is possible to evaluate standards of rationality and to improve them."[4] Following a rational method is not the only, let alone, "universal" measure of excellence but it is an essential, minimal requirement for exploring any phenomenon from a scientific orientation.

In the following pages, I do not wish to "nail down" the steps by which we carry out or evaluate our metatheorising (a subsequent article will have more to say on the specifics of metatheory building method). What I do want to make clear here is that communities of inquiry and practice need to be actively involved in building and evaluating their core metatheories. And they need to do this methodically. Mastering method is a crucial step in becoming a mature scientific discipline and the objective in this article is to set out arguments for why method might help integral metatheory building become just that. The article consists of the following sections: i) purpose and scope, ii) the definition of integral metatheorising, method, and meta-methodology, iii) some current approaches to building metatheory, iv) the importance of a method strand in the cycle of learning, v) the place of method in an integral meta-studies, and vi) a concluding call for a focus on methods in integral metatheory building.

Purpose, Scope, and Audience

All scientific method is concerned with raising awareness about how we develop our understandings and explanations. In advocating for the adoption of rigorous methods in developing an integral science, I am essentially calling for a more systematic and self-critical approach to that important task. The purpose of this introductory article is to call for the concerted use of formal research methods in developing and evaluating integral metatheory building. This issue is not distinct from the issue of application. While application takes pre-existing metatheory and directs it towards some domain or issue of interest, it must always involve some sort of evaluation of its metatheoretical base. However, in this essay the focus is not so much on the task of applied evaluation but on the development of metatheory itself. My intent is to draw attention to the lack of formal procedures by which integral metatheory, such as Ken Wilber's AQAL, has been, and is being, developed and evaluated.[5] As this is an introductory article, there will be no detailed discussion of the specific options available for performing metatheory building or evaluation.[6] The main intent here is to raise consciousness of the issue and to provide a context for its discussion.

The article is addressed to both affiliated and independent scholars who wish to contribute to the conceptual development and evaluation of integral metatheory. All research programmes evolve and develop over time and their richness and relevance gain through the active involvement of the communities that enact the practices of those programmes. Method in (meta)theory building is crucial to this evolving process. I hope to engage with that aspect in all of us that seeks a rational understanding and evaluative grounding of AQAL and other overarching metatheories. Grappling with the demands of method is an experience that all students, of any topic, can identify with. Pursuing our interests and passions in the realms of art, science, justice, or morals also involves the conscientious development and application of method. Consequently, learning, internalising, and applying method is a core requirement in any discipline.

As soon as the issue of method is raised, the associated topic also appears of what validity criteria are used in the evaluative process. What criteria do we use to judge the outcome of employing particular types of methodologies? For example, some of the most important questions that can be asked in an evaluative assessment of a metatheory are: Is it good? Is it true? Is it beautiful? Is it just? These questions, as Habermas, Wilber, and others have pointed out, relate to the domains of morals and values, science, aesthetics, art, and justice.[7] And each validity test will have its own set of methods. In the following pages I want to focus on the rational aspects of method as it applies to the scientific pursuit of evaluating the scientific *truth* of our metatheory building. Not that this domain of truth is sealed off from the concerns of morality, aesthetics, and justice. Irrespective of what genre or period it might come from, for a painting to be beautiful it must also "be true to life" in some way. The decision made in a courtroom must also be grounded in some way on what is evidentially true. Moral judgement is always helped by knowing the "facts." But while there will always be strong connections between the validity concerns of the different life domains, the methods which we use to test the scientific truth of a proposition will have different interests to those we employ in art or social justice. And the criteria that we use to assess metatheories will also have their own distinctive characteristics.

The pursuit of truth in metatheorising asks such questions as: How do we know that our metatheories are accurate, based on extant theory, and internally consistent? How do we know that we have correctly represented the approaches included within the metatheory? Have we sampled an adequate range of perspectives in building our metatheory? To what extent is our metatheory inclusive of other perspectives? Are all the relevant explanatory lenses present within our metatheoretical system? How do we know if the relationships between those lenses are consistent and logical? How do we evaluate our metatheory according to rational standards of reliability and validity? These questions lie at the heart of a scientific approach to building and applying metatheories such as AQAL.

Method need not always be a mechanical process of simply following the rules. It also has the potential to raise our reflexive awareness in why and how we employ specific procedures and techniques. Because all method includes a critical component, the very act of following method raises the issues of evaluation. Reflexivity, as Bourdieu notes, aids impartiality and objectivity and is a defence against believing in our metatheories as if they were immutable laws.[8] Bourdieu's reflexivity is also a collective process and so the methods that help us develop overarching models should also reflexively contribute to our collective evaluation of those models (and eventually to their reconstruction into something even more inclusive, more true and, hopefully, more just and beautiful).[9] Our metatheories should guide us in developing methods that reflexively and iteratively reassess their own veracity.

What Is Integral Metatheorising?

Metatheorising is concerned with "the study of theories, theorists, communities of theorists, as well as the larger intellectual and social context of theories and theorists."[10] Metatheory building is a sub-branch of metatheorising in that it focuses on the *construction* of overarching conceptual frameworks and narratives that find convergences and divergences between more localised theories. Whereas theory is developed from the exploration of empirical events, experiences, and

"first-order" concepts, metatheory emerges from the direct investigation of other theory, models, and "second-order" concepts.[11] As Willis Overton puts it:

> Scientific metatheories transcend (i.e., 'meta') theories and methods in the sense that they define the context in which theoretical and methodological concepts are constructed. Theories and methods refer directly to the empirical world, while metatheories refer to the theories and methods themselves.[12]

Metatheorising includes metatheory building as well as other types of metatheoretical research. Metatheorist George Ritzer makes the point that most research begins with some element of metatheorising in that scholars review the theories of other researchers in the development of specific hypotheses or truth claims.[13] Metatheorising is similar to other forms of sense-making in that it attempts to structure and derive meaning from some body of knowledge, information, data, or experience. It is different in that the body of information it draws on, its "data," is other theories or "unit theories," as David Wagner and Joseph Berger call the individual statements of theory that are the focus of study for metatheorists.[14]

Integral metatheorising is integral in that it acknowledges the contributions and insights of a very wide range of theories, research programmes, and cultural traditions. Integral metatheorising is characterised by its great scope, its openness to the diversity of scientific theory and socio-cultural knowledge from all parts of the world, and by its use of other overarching approaches as metatheoretical resources. With regard to this last point, the first principle of Wilber's Integral Methodological Pluralism (IMP) is non-exclusion. This principle acknowledges that sense-making is not the province of any one scientific or cultural approach to knowledge. Scientific, moral, and aesthetic insights can come from a plurality of research and inquiry perspectives. Non-exclusion means that a metatheorist takes an appreciative view of the unique insights and contributions of other theories.[15] Such a perspective is a common characteristic of metatheory building research as pointed out by Marianne Lewis and Mihaela Kelemen who, in discussing their particular form of metatheoretical research, "multiparadigm research," say that

> Multiparadigm research seeks to cultivate diverse representations, detailing the images highlighted by varied lenses. Applying the conventions prescribed by alternative paradigms, researchers develop contrasting or multi-sided accounts that may depict the ambiguity and complexity of organizational life.[16]

Non-exclusion enables metatheorising to not only accommodate unit theories and their constitutive explanatory elements within a more expansive context but also to identify the limits and partialities of those theories and elements. This means that integral metatheory has a powerful capacity for critical analysis and it is this adjudicative capacity that makes it such an important resource for scientific disciplines of all kinds.[17]

Metatheorising is not related to any one particular disciplinary level. It can be done within a single discipline, between two or more disciplines, or independently of disciplinary categories. Disciplinary and multi-, cross-, inter-, trans- and post-disciplinary projects can all be done from a metatheoretical perspective.[18] There are four basic aims for carrying out metatheoretical research.[19] These 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 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.[20]

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.[21] 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.[22]

Wilber's writings have focused on M_O (metatheory building) and, as a result, have included phases of M_U (metatheorising for understanding). Wilber's "critical integral theory" has also utilised M_A (metatheorising for adjudication) and this continues to be an important aspect of his work.

Traditionally, these different forms of metatheorising have been performed by individuals with little more than their intellectual passion to guide their sifting and analysing of theories. Although, as George Ritzer, Quentin Skinner, and others have pointed out, metatheory building is an extremely common aspect of research, it has never been formally recognised as a central aspect of scientific research.[23] While metatheorising often precedes theory testing studies, it is still largely seen as a process of mechanical review rather than of integration. One reason for this devaluing of metatheoretical research has been the lack of formal metatheory building research methods. 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 a firm methodological base. Now, more than ever, metatheoretical study needs to adopt systematic methods, relevant and sensitive research designs, and rigorous forms of analysis.

Methods and Methodologies

> Methodology is done, even methodically, but usually not with explicitly articulated or self-conscious method. There is no orthodox metamethodology; the question is simply rarely considered.
>
> —J. F. Fox[24]

A method is a series of behavioural injunctions that we follow when we want to learn or do or discover something. Method is what we do when we do not know what we are doing. When we construct a house, it is not enough that we haphazardly throw together a bunch of building

materials. Similarly, when we develop a metatheory it is not good enough to immerse ourselves in a number of arbitrarily chosen theories and aggregate them according to our own creative predilections. Nor is it sufficient to rely solely on the accumulation of ideas and perspectives of others no matter how wise or scholarly they may be. To build a house that will stand the test of time we need a method. And if integral metatheory building aims to be a scientific discipline in the broad sense, it too will need a method.

Standard theory building requires something like the following methodological phases: 1) choice of topic; 2) specification of objectives and domain; 3) identification and definition of theoretical concepts or "units"; 4) description of research methods including sampling procedures and analytical techniques; 5) interpretation of results including specification of relationships between units; 6) description of the theoretical system of relationships; 7) statement of truth claims; and 8) evaluation of theoretical system.[25] Together, these phases describe something like a general method for theory building and they can just as easily be applied to the development of metatheory.[26] Without such a method, a specific metatheory building project can be criticised on the reliability, validity, utility, and trustworthiness of its findings. It might, for example, have missed some branches of relevant literature and omitted the explanatory lenses used in that literature. Method is not only a guide for organising the behavioural procedures involved in the research process, it also provides a basis for defending its findings in the social domain.

Where method refers to the way we organise activities that are directly involved in the scientific process, metamethodology (also referred to in the literature as "metamethod") is the study of those research methods.[27] While methodology is also used to refer to the study of methods, consistent with other literature on this topic, I will use the term metamethodology when referring to the formal study of scientific research methods (see figure 1).[28]

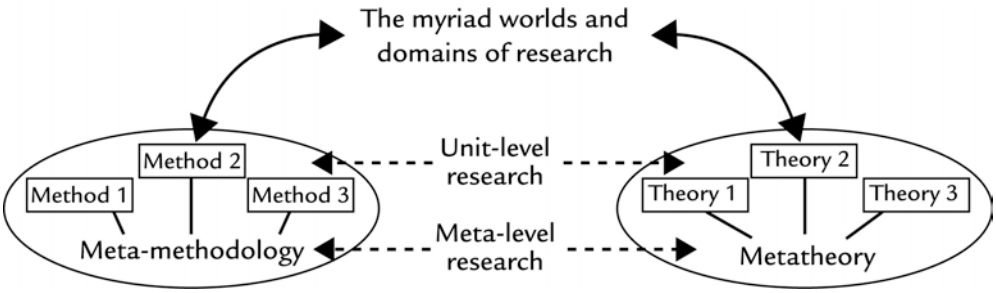

Figure 1. The Relationship between Metatheory and Metamethodology

Wilber's Integral Methodological Pluralism (IMP) is an example of an integral approach to metamethodology. While also dealing with epistemological issues, Integral methodological Pluralism is an integral framework designed for accommodating the major methodologies used to acquire knowledge. As Wilber says, "[IMP] involves, among other things, at least 8 fundamental and apparently irreducible methodologies, injunctions, or paradigms for gaining reproducible knowledge."[29] The metamethodology of IMP has the same relationship to different unit methodologies as AQAL metatheory has to different unit theories.

We use methods to disclose the worlds of activity and experience. Formal theories are the public statement of a vision that, in turn, requires a method for disclosing the data required to support or

refute that vision. There is, hence, a reflexive nature to the task of metatheory building. Methods and theories both receive and create the "objects" they are designed to disclose and explain. To paraphrase Deetz, theories and methods do not merely interpret and uncover pre-existing subjects and objects; they are core to the process of constituting those subjects and objects.[30] Methods and theories are not separate from, in time or space, the mysteries they disclose. They shape and are shaped by the stuff of their focus. Giddens refers to this as "the double hermeneutic."[31] Meanings and actions run both ways in the relationship between research programs and social occasions.

So AQAL metatheory has a corresponding metamethodology. However, this metamethodology should not be confused with a method of metatheory building. None of the eight major methodologies described by IMP has been applied in a rigorous and consistent way in the formative construction of AQAL metatheory. AQAL, as an integral metatheory, has its complementary branch of integral metamethodology in IMP. However, the point being made here is that no systematic research method has been used in its development. AQAL has been developed through the informal process of traditional scholarship and research.

The Traditional Method of Metatheory Building

The situation of the contemporary metatheorist is similar to that of the early scientists of pre-modernity. Those pioneers made observations and developed their theories without any real methodological system. They intuitively asked important questions, analysed the world around them, proposed their theoretical systems, and entered into endless debates with their colleagues. It was only with the institutionalisation of science in the eighteenth and nineteenth centuries that rigorous methods became an acknowledged part of doing science. Metatheorising is in a similar position to pre-modern science in that it has not yet to utilise formal methods or be institutionally acknowledged by the academy as a valuable form of research in its own right.[32]

Although there has been a resurgence of metatheorising in recent years, the traditional forms of scholarship still hold sway in this field.[33] The metatheorist sits in his or her library or office surrounded by books and the artefacts of learning, absorbs their contents, muses upon their meanings, resonates with their deeper intuitions and, at some point, produces overarching metatheory (Ritzer's M_O). Sometimes these ideas are informed by dialogues with experts in various fields or by critical reviews of previous grand models, but one would be hard-pressed to find anything remotely similar to a standard research method in any of this. Metatheorists of every persuasion (including Wilber, Marx, Friedman, Bhaskar, Luhmann, and Giddens) have developed their ideas via the usual method of reviewing extant theoretical texts and making arguments.[34] There is no formal process of domain specification, no sampling procedure, no design, no systematic techniques of analysis (either qualitative or quantitative), no setting out of results, and no rigorous attempt at evaluation of the (meta)theory itself—in other words, no research method.

While this traditional method of scholarship has laid the foundations for metatheoretical research, it is not adequate for the further development of this increasingly important branch of study. George Ritzer has been calling, for several decades now, for the institutional recognition and establishment of metatheorising as a core academic activity. He says that metatheorists have

been pursuing their endeavours in a "half-hidden and unarticulated way" and under increasing criticism from those who undervalue the role of integrative knowledge:

> [Metatheorists] often feel as if they are out there on their own, without a tradition in which to embed themselves, and very vulnerable to outside criticism.... Metatheorists often feel defensive about what they are doing, because they lack a sense of the field and institutional base from which to respond to the critics.... Progress in meta-theorising has been hampered by these criticisms and the lack of institutionalised base to respond to the critics.[35]

Although this situation may have marginally improved in recent years, there is still, among academic and research institutions across the world, a widespread ignorance of, and disregard for, metatheorising as a valid and useful academic activity. I would argue that one of the reasons for this is that metatheorists have never overtly employed rigorous methods that can support the results of their work. The articulation of systematic and suitable methods for pursuing metatheory building is a crucial step in affirming its core scientific and cultural value. And that step has still not been taken.

Wilber's Method

All human acts involve emergent spontaneity and creativity. The development of innovative metatheories, such as Wilber's AQAL, is no different in that they are examples of creative insight in the unfolding history of ideas. While the moment of creativity that gives form to those intuitions cannot be explained methodologically, method does play its part in preparing for that emergence and for its grounding within a tradition. Method is a necessary (in that some method is always involved in seeking the new) but not sufficient (in that it does not fully explain) the emergence and grounding of new metatheory. The dominant method used in metatheorising to this point has been the traditional model of scholarship. This is basically an individual process (often life-long) involving a mixture of intensive reading, writing, and creative insight. There are countless examples of this form of scholarship and they include such people as Immanuel Kant, Karl Marx, Carl Jung, and Brenda Dervin, each exemplify in their own work this method of developing big pictures.

AQAL metatheory has also been developed by Wilber using this traditional method of scholarship. He has read vast amounts of literature in order to find patterns of convergence and divergence that lead him to propose new explanations, understandings, and new questions that require further investigation. Wilber has described his approach as one of "plain old-fashioned homework—you just read and read and read." He says, "I read hundreds of books during the year, and a book forms in my head—I write the book in my head."[36] Wilber's efforts in developing overarching visions of human knowledge have been remarkable. He has built a metatheoretical framework that can truly be called integral in that it attempts to critically accommodate many theories, disciplinary paradigms, and cultural sources of knowledge within an ever-expanding "Integral Theory." Nevertheless, at this point it is still based on traditional methods of informal, individual scholarship.

The most lengthy discussion of method in Wilber's metatheory building comes from the article by Jack Crittenden entitled "What Should We Think about Wilber's Method?"[37] Crittenden sees the heart of Wilber's method as the development of "orienting generalisations." These are the core explanatory themes and definitive contributions that a particular field or tradition makes to some topic. Crittenden sees three steps to Wilber's method.[38] In step one the task is to "simply assemble all the [orienting generalisations] as if each field had incredibly important truths to tell us." The second step is to "take all of the [orienting generalisations] assembled in the first step" and incorporate them within a "coherent system" or metatheory. The third step, according to Crittenden, involves the development of a "critical theory of theories." All metatheory possesses this adjudicative capacity.

The first thing to note about Crittenden's model is that it is not a formal research method. It is an account of a traditional method of scholarship. The three steps amount to an intuitive and largely extemporaneous approach to metatheory building. Second, developing orienting generalisations is not, in itself, a method. They are outcomes of the metatheorising process rather than a method themselves. They do not, for example, involve issues of sampling, design, analysis, and evaluation, which are all essential aspects of method. Crittenden's model, and Wilber's views have also contributed to this, gives a false impression of the nature of "orienting generalisations." Orienting generalisations are not general statements upon which "Everybody pretty much agrees," even when those scholars might come from within a particular discipline or research programme such as IMP.[39]

Orienting generalisations are the creations of the metatheorist and not of scholars in a certain knowledge area. They are generalities that the metatheorist uses to orientate his or her particular model building. Orienting generalisations might be present in a highly articulated fashion or in an implicit form in the literature. They are often present in a embryonic or partial form and await greater explication in the hands of the metatheorist. But, whatever their status within the level of unit theories, orienting generalisations are created and articulated in their complete form by metatheorists in the process of reviewing and analysing unit-level theories and in the development of their overarching frameworks. Unit-level theorists and practitioners within a particular field may be completely unaware of these generalising constructs and their relevance to their specific field. For example, theorists working in psychology will not necessarily be aware how their theories might be placed in relation to the developmental lens or the interior-exterior lens. Such generalising orientations are created by the metatheorist and are not dependent on the agreement of unit-level theorists.

Metatheorists David Wagner and Joseph Berger use the associated term "orienting strategies" to describe the elements from which metatheorists develop their understandings of social phenomena.[40] They say that orienting strategies "involve the articulation of the conceptual foundations employed in the description and analysis of social phenomena."[41] These "conceptual foundations" are "articulated" by the metatheorist and not by those involved in researching the unit theories or the disciplines from which the metatheory is drawn. The relevant point for this discussion is that disciplinary agreement among unit-level theorists is not the criteria by which to judge the adequacy of orienting generalisations. On the contrary, they need to be evaluated within a community of researchers engaged in metatheoretical research. Rigorous and systematic methods of evaluation among metatheorists themselves are needed for this to occur.

Orienting generalisations have little to do with the points at which "various conflicting approaches actually agree with one another."[42] They are not scientifically validated by the agreement or otherwise of unit-level theorists working within a particular disciplines and subfields. They are validated through the critical practice of metatheoretical research. Orienting generalisations cannot be validated at the level of unit theories but only at the level of metatheory. This is why AQAL metatheory, or any metatheory for that matter, needs to be part of an active metatheory building research program (and not only an applied research programme).

It might also be proposed that Wilber's three principles of IMP also constitute a method.[43] The three principles of non-exclusion, un/enfoldment, and enactment amount to a process of including multiple theoretical contributions, seeing those contributions as developmentally accruing over time, and recognising that those insights are uncovered via various methods. This is a much more interesting and, I believe, more useful way of understanding Wilber's method than the orienting generalisations approach.

While these principles do provide an important (meta)methodological outline to the way AQAL has been developed, it still does not deal with the detail of evaluating research. For example, how do we know that an adequate sampling of theories, cultural perspectives, and philosophical insights have been taken into account in developing AQAL? How do we know that all the essential lenses or conceptual elements are included in the AQAL framework? What corroborating evidence is there that the relationships between lenses are accurately represented? Where do we define the limits, the domain specifications and boundary conditions to AQAL? What is the relationship between AQAL, the unit level theories that it accommodates and the empirical evidence on which they are based? What are the analytical strengths and weaknesses of AQAL metatheory? How might other integrative (meta)theories such as those of Bill Torbert or Roy Bhaskar be used to evaluate AQAL?[44] Such questions can only be addressed through the adoption and application of rigorous method and to this point this has not been the prevailing approach in the development of AQAL metatheory.

What Is the Problem with Having No Formal Method?

In an article called "The Significance of Method" the authors Jacek Smatka and Michael Lovaglia say that "methods play a role as prominent as that of metatheory in directing social research."[45] Theory and method are the flint and stone that create the spark for lighting our passion for knowledge. If either of them is wanting in some major way, then the knowledge they produce might shine brightly for a time but it will not light the pathways of a community of inquiry for the long term.

Integral metatheorising currently possesses no rigorous, systematic method for developing and evaluating its frameworks, propositions and knowledge claims. The development of metatheoretical systems such as AQAL is still dependent on traditional methods of scholarship. This is not a satisfactory situation for many reasons. First, the absence of a systematic method limits the ongoing development of integral metatheorising. While an individual can contribute immensely to the birth of a new perspective, the ongoing contribution of scholars through systematic theory building and evaluation is essential for its continued development.[46] Method is

needed for this to occur. Arthur Staats has pointed to the lack of an "infrastructure for unification" in the definition of psychological concepts and I believe that a similar lack exists on the method side of metatheoretical research.[47] The methodological infrastructure for a healthy and ongoing form of integral metatheory building does not currently exist nor is its urgent need and valuable contribution recognised.

Scholars often learn to do research within their particular disciplinary matrix through learning its methods.[48] Without a method of theory building, which, by definition, includes a phase of self-examination and evaluation, a research program can become atrophied through rote application of its conceptual base. Adherents mechanically impose the metatheoretical edifice on whatever comes their way. They have their hammer and, to them, everything has the appearance of a nail (this is the type of "method" that Feyerabend most deplored). The end result of such a process is a metatheory that, as Szmatka and Lovaglia put it, "resists change." They describe this process as follows:

> Often, grand theorists are known for their encyclopaedic knowledge. The theory that results is often extremely comprehensive and argued at length in a book or series of books. Later researchers may publish results that support or fail to support parts of the theory. However, the theory itself resists change. Its authority is linked to the stature of the author. An attempt to alter the theory represents an attack on the author. Adherents marshal a defence. Debate continues but theory growth is limited. The relation of theory to data is simple and unidirectional in the case of [grand] theories, limiting theory growth.... Data informs theory construction, but thereafter the theory is resistant to change in the face of new data.[49]

A second reason for adopting strict methods in metatheory building lies in the need to establish this field as a *bona fide* form of scientific research. A key reason why overarching theory has always struggled to gain scientific credibility is its lack of a solid methodological basis. The history of metatheorising is, in many ways, a story of glorious failures, missed opportunities, misinterpretations and ignored bodies of work that should have had much greater impact on the educative development of societies. Where metatheory has had a social impact, it has often been taken up with a missionary zeal that has lacked a critical self-evaluation. The sad history of the use and abuse of Marxist metatheory can be viewed in this context.[50] A research method is, by definition, self-evaluating—all methods include phases where the limitations of the study, its domain specifications, its sampling problems, and its interpretive limits are discussed and rectified in subsequent studies. To this point, this formal process of self-examination within a scientific community of inquiry has not been evident in the development of metatheory. And this neglect for method has not gone unnoticed within the mainstream. It is not only the rise of postmodernism that has stymied the growth of "metanarratives" and integrative frameworks of understanding. Mainstream science itself has little time for ideas based on little more than the scholarly review of literature.

There is an interesting anomaly here that modernity, through its instinct for synopsis, abstraction, and generalisability, is actually innately appreciative towards integrative theorising and yet it also rejects social metatheorising on the grand scale. Modernity in the physical sciences has

given birth, for example, to the "Theories of Everything" in 20th and 21st century physics. But even modernists have largely rejected metatheory in the social sciences concentrating instead on the task of developing middle-range theory.[51] One reason for this is, I believe, the lack of method in social metatheorising. Twentieth century science has been the age of method and for modernists where there is no method there is no science. Consequently, I see the rejection of metatheory in the second half of the twentieth century as due, not only to the postmodernist distaste for grand narratives but also to the modernist concern for scientific method. Even when your aim is to integrate existing scientific knowledge, without method you do not do science—even if your metatheory is one of science. Any branch of scholarship that does not adopt an overtly rigorous method will, quite rightly, never be taken seriously by mainstream science and the academy. As the methodologists Colin Elman and Miriam Elman put it, "In science, Nike notwithstanding, there is no 'just doing it.'"[52]

A third reason for introducing a formal method into integral metatheorising is that it lays a foundation for the rational justification of its results. Rationality is by no means the whole story here, but rational argument is a gatekeeper for entry into more integrative forms of logic. I agree with Elman and Elman when they advocate for "an open and informed debate about the comparative merits of different rationalist and sociological metrics for describing and appraising theoretical developments."[53] The lack of method opens up metatheory building to many of the charges that are made against postmodernity. Without method, AQAL metatheory can be portrayed as just another personal perspective irrespective of how many insights from other fields of knowledge it might have embraced. Wilber-V can be depicted as precisely that—the fifth version of one person's viewpoint.

If integral metatheory building continues to rely on method-less creativity then it will face a number of problematic options. In leaving the responsibility of integral metatheory building to the output of one person, and simply applying Wilber-IV or -V or -VI as best we can, we will end up as something decidedly less than a community of inquiry. In which case, integral metatheory building will never achieve its true potential as a scientific discipline. Or, we can exist as a series of continuously splintering (meta)theoretical variations that are largely based on personal scholarship. This has been a relatively common outcome for several metatheoretical schools in the past.

Research programs exist as ongoing traditions, disciplines and schools of thought through the sharing of methods as much as anything else. Both methodological practice and conceptual systematisation hold a research community together over the longer term. Method allows for ongoing development while minimising sectarianism. It can do this because it promotes reflexive review and affirms a rational basis for justifying the products of the metatheorising process. Method provides a behavioural platform for the ongoing work of a community of inquiry.

There may be other reasons why method is crucial for the ongoing development of an integral metatheorising but these three—to include reflexive self-criticism, to achieve scientific maturity, and to support a (global) community of inquiry—are reasons enough. Without a formal method, metatheory tends towards ideology or even dogma, struggles to be broadly regarded as a scientific enterprise, and, most importantly, assumes itself to be a community of adherents rather than of enquirers.

I agree with Wilber that there exists no "single straight forward 'scientific method.'"[54] But Wilber also points out that there is a pattern to doing science and that behavioural procedures form a significant part of that pattern. In the next section, I want to go further into this issue and discuss the role of method within the context of a general model of learning and knowledge acquisition. I will try to show where method fits into the development of integral metatheory (and, more generally, an integral meta-studies) and how this is relevant to the work of any scholar, researcher, or practitioner in the integral studies field.

Research Method and the "Integral Cycle of Learning"

Science is, among other things, a practice of discovering, an embodied process of uncovering something that was not seen before. It is a formal system of learning and acquiring knowledge. Learning has been commonly represented as a cyclical process in which conceptual and behavioural knowledge is acquired through a number of iterative phases. Drawing on the epistemological models of many different theories of learning and knowledge acquisition a metatheory of learning is presented. A static representation of the phases of the metatheory of learning is represented in tables 1a and 1b. These tables do not capture the dynamic and processual aspects of the sample of learning theories. For each model, and for the metatheory as a whole, the phases of acting, reflecting, deriving meaning, and validating should be regarded as interconnecting and self-mutualising processes.

While the specific number of phases between models varies, there is a strong concordance between the phases that seems well captured by a four-phase model. These phases can be summarised as learning through: 1) action (corresponds to Wilber's *instrumental strand*) or the method of doing something, the procedural knowledge of instruction and technique; 2) reflection (corresponds to Wilber's *apprehensive strand*) or the domain of subjective experience and encounter with the data; 3) meaning (Edwards' *interpretive strand*) or the hermeneutics phase of meaning and sense-making; and 4) validating (corresponds to Wilber's *validation strand*) or the testing arena of public debate, social expression, research institutions, and public systems of verification (including peer review processes, academic conferences, publishing, etc.).

It needs to be pointed out that the four phases in this metatheory of learning do not correspond to the four quadrants in Wilber's AQAL model. The four-phase model presented here is regarded as operating independently within individuals and social entities. For example, the individual student will learn through the process of behavioural action, cognitive reflection, interpretive meaning-making and social performance. A social entity, such as a group, will also learn through these four iterative phases. Wilber's quadrants refer to the capacities or dimensions of sentient individual holons and not to collectives (though the quadrants can be used as perspectives to "look at" social phenomena: a quadrivia).[55] The major point to be drawn out here is that the integral cycle of learning is a dynamic way of seeing how interior and exterior aspects of the learning process can be included within an integral metatheory building process.

The learning cycle is an iterative one where multiple repetitions and imitations flow through the entity in question. Where blockage in any one strand occurs, learning is stymied. This applies to individuals as well as to collectives. As Dixon says in her discussion of organisational learning, "When the steps of the organisational learning cycle are disconnected collective learning is

lost."[56] The processual inclusion of each of the strands is particularly important for learning to be successfully internalised and routinsed. Ming-Ten Tsai and Kuo-Wei Lee say that "the completeness of the learning cycle has a significant influence on knowledge internalization."[57] Where a phase is missing, learning is disrupted and knowledge development is significantly impeded.

All strands of what I have called, "the integral cycle of learning" are applicable to any social level: individual, dyad, triad, group, or large collective and so this epistemological model can be applied to the social level of, for example, scientific communities of inquiry.[58] An individual learns by personal action, personal experience, personal interpretation and personal evaluation. A group learns by group action, group experience, group meaning-making and group evaluation. And so on with even larger collectives.

Learning cycle phases	Education (Dewey)	Learning models (Juch)	Experiential learning cycle (Kolb)	Validity claims (Habermas)	Forms of knowledge (Bhaskar)	Learning as technology (McCarthy)	Organizational learning (Miller)	Knowledge strands (Wilber)	Organizational learning cycle (Dixon)
Acting, Doing, & Handling	experiential continuity		concrete experience	truth	performative	doing something with it	experimental	injunction	information generation
Reflecting, Thinking, & Sensing		Sensing	reflective observation	truthfulness (sincerity)	experiential	taking it in	analytic structural	apprehension	experiential integration
Meaning, Interpreting, & Understanding	situational interaction	Thinking	abstract conceptual-ization	comprehen-sibility	epistemological	ordering and naming it	synthetic		collective interpretation
Validating, Testing, & Explaining		Addressing	active experimen-tation	rightness (legitimacy)	propositional	expressing it	interactive institutional	validation	social action

Table 1a. A Phase-Based Comparison of Theories of Learning and Knowledge Acquisition

Learning cycle phases	2-phase learning (Greenaway)	Organiza-tional knowing (Choo)	Organizational learning schools (Bell, Whitwell et al.)	Organizational learning (Akgun, Lynn et al.)	Organizational transformation (Spitaletta)	Integral cycle (Edwards)	Systems learning (Mingers)	Organizational learning cycles (Tsai and Lee)	Organizational learning cycles (Rosendaal)
Acting, Doing, & Handling	do/experience	action selection	economic school	acquisition	action	acting	action	care why	scanning and problem solving
Reflecting, Thinking, & Sensing		knowledge creation	developmental school	thinking emotion	observe	reflecting	appreciation	know why	abstraction
Meaning, Interpreting, & Understanding	review/reflect	sense making	process school	sense-making collective memory	orient	meaning	analysis	know what	diffusion and absorption
Validating, Testing, & Explaining			management school	dissemination implementation	decision	testing	assessment	know how	impacting

Table 1b. A Phase-Based Comparison of Theories of Learning and Knowledge Acquisition (Cont.)

This integral cycle of learning is not a representation of the AQAL quadrants. First, the learning phases are not domains of development but are phases in a cyclical model for explaining and understanding change. Second, the learning lens has been developed from the independent

analysis of many learning theories and is not the result of an iterative application of AQAL to itself. In other words it is grounded on the "data" of other theories of learning and knowing and is itself, therefore, an example of an evidenced-based method of metatheorising.[59] Third, the integral cycle of learning is independently applicable to individuals, groups and larger collectives. Fourth, as figure 2 shows, this cycle is associated with the combination of different lenses to those that are used to generate the AQAL model. Where AQAL crosses the interior-exterior and individual-collective lenses, the learning cycle is associated with the combination of different lenses to those that are used to generate the AQAL model. Where AQAL crosses the interior-exterior and individual-collective lenses, the learning cycle is associated with the combination of interior-exterior and the agency-communion lenses.[60] Consequently, this model can be applied to both individuals and collectives. Fifth, the learning cycle does not merely apply Wilber's three knowledge strands model but builds on it and brings it into line with those learning models that have identified an interpretive phase to the learning process. Sixth, the learning cycle lens is independent of stage-based understandings of development. To date, AQAL has not adequately dealt with the issue of how change occurs through human social learning as opposed to human development. This is one reason why the developmental approaches of important learning theorists such as Albert Bandura, Jerome Bruner, and Lev Vygotsky are generally absent from AQAL-informed discussions.[61] In fact, the integral cycle of learning lens is an explanatory lens that adds significantly to the descriptive and analytical power of the integral metatheoretical toolkit.[62]

Placed within the context of integral metatheory building, the learning lens can be used to explore the process of learning at any social level including the meta-level of scientific studies which is our focus here. It describes a process where knowledge can be regarded as a flowing exchange between the processes of acting (exterior-agency), reflecting (interior-agency), interpreting (interior-communion) and social validation (exterior-communion) (see figure 2).[63]

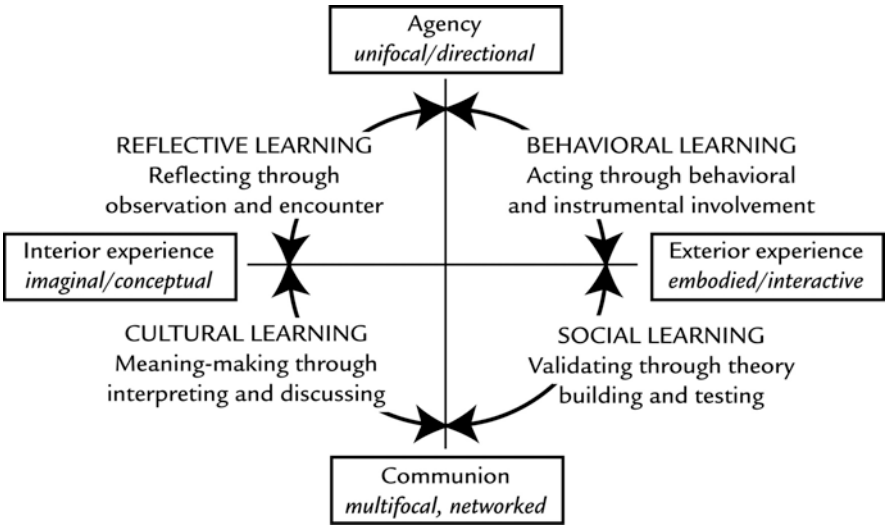

Figure 2. The Integral Cycle of Learning (Single Loop)

The point of describing this integral learning cycle model is to draw out the deep connections between the learning phases (particularly the method phase) and formal, social conventions for

the acquisition of meta-level social knowledge. Each one of these phases is vital to the learning process. These connections can be seen as deeply embedded in socio-cultural forms of knowledge acquisition such as scientific inquiry. They can even be seen in the structure of scientific reporting. Most people are familiar with the standard scientific report sections of introduction, method, results and discussion. Table 2 shows the parallels between the standard sections of a scientific report and the corresponding arcs in the integral cycle of learning.

Formal Components of Scientific Report	Purpose of Report Section	Corresponding Phase in the Integral Cycle
1. Introduction & literature review	review extant theory	validating/reviewing - what is valid theory within the relevant scientific community
2. Method	describe sampling, techniques, procedures, and design	acting/injunctive phase - behaviors and procedural exemplars
3. Results	describe and report the results of data analysis	reflecting/apprehensive phase - results of experiences, observations and encounters with the data
4. Discussion	interpret and discuss results	interpreting phase - interpretation of results via culturally mediated frameworks
5. Conclusion	draw out implications of the study for society	validating phase - return to the restatement of knowledge incorporating new findings

Table 2. The Integral Cycle of Learning and Scientific Reporting

Although this cycle can begin with any phase, traditionally it opens with the social domain of reviewing the current state of theory related to the topic of interest. Ritzer points out that the introductory section of most scientific articles begins with metatheorising accounts of collective knowledge in a field and this is narrowed down to some hypothesis or research question.[64] The method follows next and is a detailed description of what concrete steps were taken to perform the study. The results of the researcher's encounter with the "data" then follows. Interpretations of these results are subsequently discussed and conclusions are made about the validity of the findings and their wider implications. In moving through these steps, the cycle of learning is completed and, hopefully, some knowledge has been acquired along the way.

In the learning cycle, the method phase is the phase of acting, of behaviourally following the injunctions, procedures and techniques that are associated with a particular cultural mode of learning. If method is absent from a process of knowledge development, then that process will not ultimately result in effective learning. If some method is used, but it is idiosyncratic and not open to a community of inquiry, then it will hamper or distort the development of knowledge in some crucial way. This has direct implications for communities of scholars, researchers and practitioners that aspire to developing new forms of knowledge and practice.

Integral Meta-Studies

Having called attention to the importance of method for integral metatheorising and described the role of method relative to other learning phases, I want to now systematise these issues

within a broad vision of what I call "integral meta-studies." To do this I will once again rely on a review of extant approaches to describing an overarching schema for meta-studies. Shanyang Zhao describes a general form of meta-studies as a second-order form of research that "transcends or goes beyond" other forms of study.[65] This general meta-studies includes "metatheory," "metamethodology," and "meta-data-analysis." Drawing on the IMP approach of Wilber, organisational metatheory, the meta-synthesis framework, the meta-studies notion of Zhao and the notion of an integral cycle of learning and knowledge described above, the relationship between metatheory building methods and metamethodologies can be situated within the context of an integral meta-studies.[66]

Unwinding the four strands of the integral cycle of learning makes evident the four core components to doing science: theory, method, data and interpretation (see figure 3).[67] We have then the possibility of recognising and developing not only integral metatheory (such as AQAL) and metamethodology (such as IMP) but also meta-data-analysis (such as the emerging field of Integral research) and metahermeneutics. And, of course, there can be integral varieties of each of these meta-forms of scientific study. Iterations of the learning cycle apply to the development of any of these branches of integral meta-studies. There is a principle of self-similarity here that involves the use of theorising/validating, method/acting, data/reflecting and interpreting/meaning at each level in the integral meta-studies system.[68]

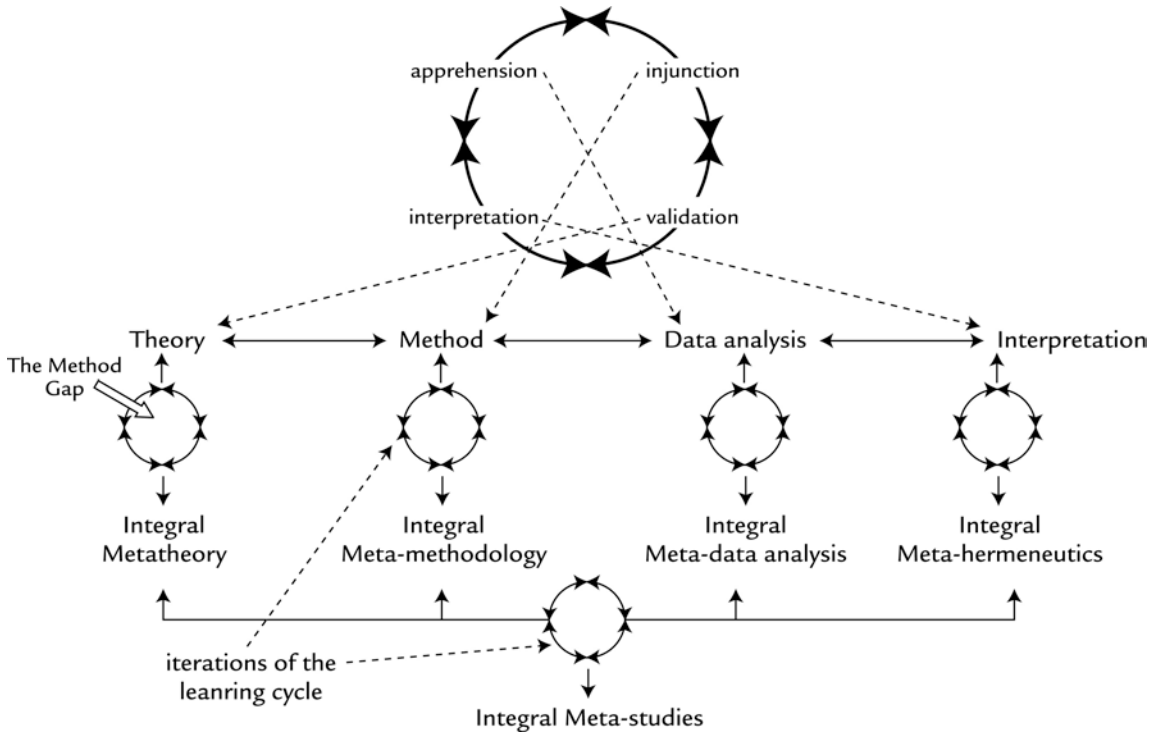

Figure 3. The Structure of an Integral Meta-Studies

Together, the meta-disciplines of integral metatheorising, integral metamethodology, integral meta-data-analysis and integral metahermeneutics constitute an integral meta-studies—the art and science of integrating knowledge from the realms of theory, method, data, and interpretation. Research in any of these meta-studies activities becomes integral when it: 1) is consciously and

explicitly performed in a multiparadigm or meta-studies context; 2) when it uses, as conceptual resources, other integral frameworks such as Ken Wilber's AQAL model, Roy Bhaskars's meta-reality, Bill Torbert's developmental action inquiry, E. F. Schumacher's system of knowledge, Sri Aurobindo's integral yoga, Basarab Nicolescu's transdisciplinary studies, or Johan Galtung and Sohail Inayatullah's macrohistory; and 3) when its domain of interest is marked out by its inclusiveness and emancipatory aims.[69]

Researchers can, of course, move across all of these varieties of scientific learning, but usually both individual researchers and their paradigm-based communities of inquiry tend to specialise in one or two domains. Metatheorists are very rarely metamethodologists (Paul Meehl being a prominent exception to this). Practitioners of metahermeneutics (including many postmodern interpretivists) are shy of entering the territory of metatheory. There are also strong barriers between the meta-level and what might be called the unit-level of research, for example between middle-range theorists and metatheorists. And so, when researchers make forays into foreign domains there can often be problems in their claims about the veracity or usefulness of those other branches of knowledge development. 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 empirical world.[70]

Integral metatheorising can also encroach on the territory of other branches. For example, integral metatheory building is based on the analysis of extant theory and does not deal with empirical data. Consequently, it cannot validly make conclusions about empirical data based on its metatheorising. If it does so, it is stepping outside its realm of authority. 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 has pointed out, it is entirely possible and, in fact, desirable that unit-level theory be developed from metatheory (this is Ritzer's M_P).[71] But in doing that, the new unit-level theory will require empirical testing. Metatheory can be used to develop hypotheses and metaconjectures about empirical events but these will then need to be evaluated through the application of unit-level theories.[72] When, for example, empirical statements are made about how many people in some region have their "centre of gravity" at one developmental level or another, AQAL researchers are entering the world of empirical speculation. This is not its domain of expertise. The real home of metatheories like AQAL is in the integration and evaluation of other theory. Likewise, the natural territory for IMP is the review, analysis, and systemisation of other methodologies and not the methodological adequacy of a particular study.

This type of meta-domain encroachment can also be seen in the other strands. Metahermeneutics (meta-interpretive analysis), which is essentially postmodern interpretivism, often strays into the realm of metatheorising and makes claims, based on its own analysis of interpretive frameworks, about the value, or even possibility, of developing metatheory. This particular form of meta-domain encroachment has plagued meta-studies in general, and metatheorising in particular, for several decades now. The model proposed in figure 3 has the potential to raise awareness of these issues of meta-domain encroachment.

The meta-studies framework in figure 3 raises another important issue. Integral meta-studies has begun to develop metatheoretical and meta-methodological branches but has not yet ventured

into the domains of integral meta-data analysis or meta-interpretive analysis. Integral meta-data-analysis could bring an integral perspective to the large-scale evaluation of empirical literature including both qualitative, quantitative, and mixed method studies. This kind of evaluation should be a focus of Integral research. The sophisticated techniques of meta-analysis and meta-synthesis have been instrumental in the opening up of new fields such as evidenced-based medicine and nursing.[73] An integral meta-data-analysis has the potential to develop evidence-based approaches in many fields including social policy, developmental studies, health and transformation studies. Integral metahermeneutics is the science of identifying and connecting systems of interpretation. This is an essentially postmodernist activity, but one which has an integrative and constructive focus rather than a decentering and deconstructive intent. Integral metahermeneutics can show how the interpretive turn can also uncover integral pluralisms as well as relative pluralisms.

A final issue to be raised regarding that figure 3 is that of the reciprocal relationship between the unit-level of theory, method, data, and interpretation and the meta-level of metatheory, metamethodology, etc. For example, metatheory may not only be developed from existing unit-level theories, it can also be used to generate *new* unit-level theory. There is a close relationships between the construction and testing of both unit-level and meta-level theories. What is apparent with regard to integral meta-studies is the almost completely unexplored opportunity for the development and testing of unit-level theories that derive from integral metatheory. I am aware of only one such study that empirically tests a unit-level theory that is based on AQAL metatheory.[74] Given the great scope and conceptual richness of AQAL, it is difficult to understand why the development of middle-range integral theory has been so slow to emerge. Again, I suggest that it has something to do with the lack of research method and the absence of a collegial research community that contributes to the building and evaluation of integral metatheory. The same point may be made for each of the other branches of integral meta-studies.[75]

These four branches of integral meta-studies—metatheory, meta-methodology, meta-data-analysis, and metahermeneutics—co-create and support one another in the same way that learning emerges through the iterative cycle of doing (method), sensing (data), interpreting (hermeneutics), and communicating (theory). So far, integral studies has concentrated on developing and communicating its metatheory (i.e., AQAL metatheory) and, while some work has been done in the other knowledge domains, it is now timely that a more conscious and deliberate exploration of these other territories of integral data-analysis and integral hermeneutics is undertaken. Integral research as presented in this two-part special issue is a promising start to this process.

Research Methods for Integral Metatheory Building

Having described the relationship between methods, metamethodologies, and meta-studies, we now have the tools to make a clear distinction between an integral metamethodology and a method for integral metatheory building. AQAL belongs to the science of integral metatheory and IMP, among other things, belongs to the science of integral metamethodology, and integral research can begin to contribute to the development of the science of integral data-analysis. What this article draws attention to is the method gap that currently exists between integral metatheory

and its treatment of unit-level theory. In figure 3, this "method gap" is indicated on the left side of the diagram and draws attention to the lack of formal methods used in connecting "integral metatheory" to "theory" (unit-level theory). For AQAL metatheory, this connection is largely based on the traditional scholarship methods adopted by one person, Ken Wilber. This needs to be augmented by the development of an integral metatheory that emerges through the application of more systematic research methods performed by communities of researchers who are interested and trained in integral metatheorising and not just the application of AQAL metatheory.

There are several research methods and methodological discussions on metatheory building that can fill the method gap. Over the last 20 years or so, several metatheory building methods have been developed for analysing other theories in a systematic and reliable way. These include metasynthesis, metatriangulation, soft systems methodology, and meta-ethnography.[76] I have also developed a detailed qualitative research method based on a comparison between metatheory building and more conventional theory building methods.[77] There is much potential in these and other methods for the development of a range of qualitative, quantitative, and mixed method approaches to integral metatheory building.

The call for a greater focus on metatheory building method also means that applied integral research must play a role in the ongoing task of evaluating, confirming, and revising integral metatheories such as AQAL. The range of disciplines where this applied work is being done is impressive. This is important and valuable work. However, at present, much of this applied work is focused on mapping the AQAL framework onto the theories and paradigms of various disciplines with no evaluative content. There is a place in all applied research for the reflexive evaluation of the (meta)theories and models it adopts. If we simply apply AQAL without critically evaluating it and contributing to its ongoing formulation, we are, in effect, short-circuiting the learning cycle. I believe that it is incumbent upon all involved in integral research to evaluate the overarching conceptual frameworks that inform their work. This evaluative role is the shared responsibility of all members within a community of inquiry.

Limitations

There are several limitations to this article. Of those of which I am aware, perhaps the most important is that this article tries to do too much. Rather than staying with the simple task of raising awareness about method, I have strayed into a number of complex and, some might say, tangential issues. While this may be so, I have felt it necessary to contextualise the call for method within a broader vision of how integral studies relates to other levels of scientific sense-making. Hopefully, that contextualising process has some value in itself.

This article is also written out of a deep appreciation for the rational validation of the "Truth" of integral metatheorising. Consequently, it neglects issues of beauty, creativity, and practical relevance in how we evaluate what we think and do. This choice of focus has been a conscious one and I have concentrated on scientific validity for a specific purpose. While there may be some benefits from this in communicating about integral approaches to mainstream academics, researchers, and practitioners, this has not been the main issue here. The most important reason for adopting more rational methods in our metatheorising is to ensure that integral approaches

are grounded on metatheoretical evidence and reasoned argument so that it can embrace rationality even as it moves towards something deeper and more profound. Without the full inclusion of the rational, we run the risk of falling into a type of pre/trans fallacy, which sees the rational critique of integral metatheory as an adversary to the ongoing development of integral studies rather than its progenitor and contributor.

The question might be asked, how can I validate the validation procedure that I have outlined here? Might not all this talk of "meta" be a case of abstract tail-chasing. First, I have not actually proposed any validation method as such. What I have done is to contextualise the validation of integral research within a universal system of learning. That system is grounded on the data of other unit-level and metatheories of learning. Second, the issue of validation criteria is a crucial one. But, as this introductory essay is focused on domain and contextual issues, these matters of validity have not been addressed. I hope to take these matters up in a following occasion. On the issue of abstraction, I make no apologies for the highly conceptual nature of this discussion. Although I do hope that there might be others who will critically contribute, in more concise and concrete ways, to what I am proposing here.

Conclusion

The foregoing has focused attention on the lack of research methods in the development and evaluation of integral metatheories such as Wilber's AQAL model and its associated "Integral Theory." In the absence of such methods, research communities run the risk of becoming applicators of a format rather than active contributors and critics of a living system of knowledge and learning. Method is not only central to the process of critical learning, it also enables and enacts the participatory capacities of the members of a community of inquiry.

Formalising how we do something can put unnecessary fetters on our creative spirits. However, where any form of learning or growth in knowledge is concerned, there also needs to be an injunctive method, communicated in words, practices, and techniques that can provide that creativity with a sound launching pad. The integral learning cycle of acting, reflecting, interpreting, and validating promotes the acquisition of knowledge only when injunctive methods have been formalised and internalised. Any disciplinary matrix requires a rigorous method—from Bebop to Zen to doing science. Integral metatheory will not take its full place among the mature forms of scientific disciplines until it too has reliable methods for (re)searching the good, the true, the beautiful, and the just.

The introduction of systematic research methods into integral metatheory building will not hinder the creative nature of this worthy and urgently needed enterprise. A rigorous method can lay the foundations for a community of inquiry that seeks to master the art and science of doing research. It is only after that mastery has been achieved that creativity can flow spontaneously. Charlie Parker, one of the greatest artists of the 20th century, said "Master your instrument, master the music, and then forget all that and just play." Method is the pathway to mastery. In this postmodern world we move too quickly to the informality of the "just play" part of this formula and we forget about the mastering of technique.

Method is also about grounding our metatheory building in the data of extant theory. Metatheorising comes out of this mix of method and inspiration, karma and creativity. There is a famous passage from Francis Bacon's book *The New Organon*, which I take to refer to this complex task:

> Those who have handled sciences have been either men of experiment or men of dogmas. The men of experiment are like the ant, they only collect and use; the reasoners resemble spiders, who make cobwebs out of their own substance. But the bee takes a middle course: it gathers its material from the flowers of the garden and of the field, but transforms and digests it by a power of its own.… Therefore from a closer and purer league between these two faculties, the experimental and the rational (such as has never yet been made), much may be hoped.[78]

This delightful allegory is usually taken to refer to the relationship between the empirical experiment and rational theorising. I also see it as about the relationship between method and creativity within a social community of inquiry. Bacon, the first great proclaimer of scientific method, is suggesting here that all these elements—method, creativity, and social identity—are needed for science (or any critical system of knowledge) to flourish. Integral metatheorists can digest and transform ideas through their own creative powers but they must also be methodical in gathering their "material" from the field. Science is at its best when it practices a balanced mixture of systematic method and creative insight within a supportive and evaluative (bee-like) community. Integral metatheory building at the moment does not possess this balance.

The lack of a metatheory building research method is one of the most crucial issues facing integral studies and particularly for its standing within institutional settings. It is also an issue of some import for integral scholars as a community of inquiry. Postmodernism is right to be critical of big pictures and integrative frameworks that are too heavily based on the results of individual scholarship (however visionary that scholarship might be). The first point of defence against this charge comes not from demonstrating the value of the metatheorising itself, but from showing that the researcher has employed a method that addresses the issues of reliability, validity, and trustworthiness. If our methods for building overarching metatheory are idiosyncratic, sloppily defined, poorly developed, uncritical, or poorly understood then integral endeavours are left wide open to both modern and postmodern criticisms that it has questionable validity, that it is based on unacknowledged totalising agendas, or that it is subject to the vagaries of personal sense-making. No amount of informal creativity overcomes these criticisms. There needs to be some method to our integral madness.

NOTES

[1] Feyerabend, *Against method: Outline of an anarchistic theory of knowledge*, 1993, p. 214

[2] My thanks to Markus Molz, Sean Esbjörn-Hargens, Ken Wilber, and the two independent reviewers for their very helpful comments on an earlier draft of this article.

[3] Feyerabend, *Against method: Outline of an anarchistic theory of knowledge*, 1993 p. 14

[4] Feyerabend has been somewhat misrepresented in English-speaking countries. Markus Molz informs me that:

> Feyerabend was not at all against method.… He was in favour of creativity in the selection, development, and adaptation of adequate methods sensitive to the problems under study.... The title of his book *Against method* in the English translation was quite unfortunate and does not reflect the intentions of Feyerabend.... The German title said: "Wider den Methodenzwang: Skizze einer anarchistischen Erkenntnistheorie." A more literal translation would be: "Against constraints in using methods: Outline of an anarchistic epistemology."

[5] Wilber, *Sex, ecology, spirituality: The spirit of evolution*, 2001
[6] A following article will discuss what methods could be used to address this need and associated questions regarding evaluative criteria, qualitative and quantitative methods, validity claims, etc.
[7] Habermas, *Moral consciousness and communicative action*, 1995; Wilber*, Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006
[8] Bourdieu, *Science of science and reflexivity*, 2004
[9] Maton, "Reflexivity, relationism, & research: Pierre Bourdieu and the epistemic conditions of social scientific knowledge," 2003
[10] Ritzer, "Sociological metatheory: A defense of a subfield by a delineation of its parameters," 1988. p. 188
[11] Gioia & Pitre, "Multiparadigm perspectives on theory building," 1990
[12] Overton, "A coherent metatheory for dynamic systems: Relational organicism-contextualism," 2007, p. 154
[13] Ritzer, *Metatheorizing in sociology*, 1991a
[14] van Gigch & Le Moigne, "A paradigmatic approach to the discipline of information systems," 1989; Wagner & Berger, "Do sociological theories grow?" 1985
[15] Edwards, "Towards an appreciative meta-inquiry," 2007
[16] Lewis & Kelemen, "Multiparadigm inquiry: Exploring organizational pluralism and paradox," 2002, p. 263
[17] Colomy, "Metatheorizing in a postpositivist frame," 1991
[18] For discussions of the relationship between AQAL and matters of disciplinarity, see Esbjörn-Hargens, "Integral research: A multi-method approach to investigating phenomena," 2005.
[19] Colomy, "Metatheorizing in a postpositivist frame," 1991; Lewis & Kelemen, "Multiparadigm inquiry: Exploring organizational pluralism and paradox," 2002; Ritzer, *Blackwell encyclopedia of sociology*, 2006
[20] Turner, "The misuse and use of metatheory," 1990
[21] See, for example, Witherington, "The dynamic systems approach as metatheory for developmental psychology," 2007.
[22] See, for example, Abrams & Hogg, "Metatheory: Lessons from social identity research," 2004
[23] Ritzer, "Reflections on the rise of metatheorizing in sociology," 1991b; Skinner, *The return of grand theory in the human sciences*, 1985
[24] Fox, "Towards metamethodology," 1996, p. 110
[25] For specification of objectives and domain, see Wacker, "A definition of theory: Research guidelines for different theory-building research methods in operations management," 1998. For the identification and definition of theoretical concepts or "units," see Dubin, *Theory building*, 1978. For the specification of relationships between units, see Wacker, "A definition of theory: Research guidelines for different theory-building research methods in operations management," 1998. For the description of the theoretical system of relationships, see Dubin, *Theory building*, 1978. For the statement of truth claims, see Lewis & Grimes, "Metatriangulation: Building theory from multiple paradigms," 1999. And for the evaluation of theoretical system, see, for example, Bacharach, "Organizational theories: Some criteria for evaluation," 1989.
[26] Dubin, *Theory building*, 1978; Edwards, *An integral metatheory for organisational transformation*, 2008; Wacker, "A definition of theory: Research guidelines for different theory-building research methods in operations management," 1998
[27] Mingers, "Combining IS research methods: Towards a pluralist methodology," 2001
[28] Bondas & Hall, "Challenges in approaching metasynthesis research," 2007; Zhao, "Metatheory, metamethod, meta-data-analysis: What, why, and how?" 1991
[29] Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006, p. 33
[30] Deetz, "Describing differences in approaches to organization science: Rethinking Burrell and Morgan and their legacy," 1996, p. 192
[31] Giddens, *The constitution of society*, 1984
[32] Ritzer, *Explorations in social theory: From metatheorizing to rationalisation*, 2001
[33] See, for example, Fiske & Shweder, *Metatheory in social science: Pluralisms and subjectivities*, 1986; Ritzer, *Explorations in social theory: From metatheorizing to rationalisation*, 2001; Skinner, *The return of grand theory in the human sciences*, 1990; Wilber, *The collected works of Ken Wilber (Vols. 1-8)*, 1999-2000.

[34] Sometimes metatheorists also perform empirical research data as part of M_P, but this is not M_O, or metatheory building. The issue of concern here is the methodical process by which metatheory building is done.
[35] Ritzer, *Metatheorizing in sociology*, 1991a, p. 318
[36] Wilber, *One taste: The journals of Ken Wilber*, 1999, p. 122
[37] Crittenden, "What should we think about Wilber's method?" 1997
[38] Crittenden, "What should we think about Wilber's method?" 1997, p. 101
[39] Wilber, *Sex, ecology, spirituality: The spirit of evolution*, 2001, p. 4
[40] Wagner & Berger, "Do sociological theories grow?" 1985
[41] Wagner & Berger, "Do sociological theories grow?" 1985, p. 700
[42] Crittenden, "What should we think about Wilber's method?" p. 100
[43] Esbjörn-Hargens, "Integral research: A multi-method approach to investigating phenomena," 2005
[44] Bhaskar, *Meta-reality: Creativity, love and freedom*, 2002; Torbert, *Action inquiry: The secret of timely and transforming leadership*, 2004
[45] Szmatka & Lovaglia, "The significance of method," 1996
[46] Lynham, "The general method of theory-building research in applied disciplines," 2002
[47] Staats, "Unifying psychology requires new infrastructure, theory, method, and a research agenda," 1999
[48] Szmatka & Lovaglia, "The significance of method," 1996
[49] Szmatka & Lovaglia, "The significance of method," 1996, pp. 407-408
[50] The same might also be said of the fervour with which rational economics has been adopted since the 1980s (the results of which are feeding into many of the global problems we face today).
[51] Merton, *Social theory and social structure*, 1957
[52] Elman & Elman, "How not to be Lakatos intolerant: Appraising progress in IR research," 2002, p. 232
[53] Elman & Elman, "How not to be Lakatos intolerant: Appraising progress in IR research," 2002, pp. 233-234
[54] Wilber, *The marriage of sense and soul: Integrating science and religion*, 1998, p. 131
[55] As distinct from quadrivia. See Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006.
[56] Dixon, *The organizational learning cycle: How we can learn collectively*, 1999, p. 64
[57] Tsai & Lee, "A study of knowledge internalization: From the perspective of learning cycle theory," 2006, p. 65
[58] Edwards, "The integral holon: A holonomic approach to organisational change and transformation," 2005
[59] Although no formal method section has been indicated, the paper itself is based on the application of a standard method of theory building in that it sets out a domain of interest, defines its key terms, identifies and samples its "data" of learning theories and meta-studies approaches, analyses theses theories using comparative technique of theme analysis, systemises and interprets the findings, and draws out their evaluative implications.
[60] The agency-communion lens is regarded here not as a drive but as a conceptual lens that theorists have used in their explanations of social phenomena. See, for example, Wiggins, *Paradigms of personality assessment*, 2003.
[61] Bandura & Walters, *Social learning and personality development*, 1963. For Jerome Bruner, see Bruner, *Actual minds, possible worlds*, 1986, and *Acts of meaning*, 1990. For Lev Vygotsky, see Rieber & Carton, *The collected works of L. S. Vygotsky*, 1987.
[62] See Edwards, "The integral holon: A holonomic approach to organisational change and transformation," 2005, and *An integral metatheory for organisational transformation*, 2008 for a further discussion of this topic.
[63] This cycle refers to a single-loop learning model and the crucial role of developmental levels to produce double- and triple-loop forms of learning have not been explored here. See, for example, Akbar, "Knowledge levels and their transformation: Towards the integration of knowledge creation and individual learning," 2003 and Torbert, "The distinctive questions developmental action inquiry asks," 1999.
[64] Ritzer, *Metatheorizing in sociology*, 1991a
[65] Zhao, "Metatheory, metamethod, meta-data-analysis: What, why, and how?" 1991, p. 378
[66] See Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006. For organisational metatheory, see Tsoukas & Knudsen, *The Oxford handbook of organization theory: Meta-theoretical perspectives*, 2003. For the meta-synthesis framework, see Paterson, Thorne, Canam & Jillings, *Meta-study of qualitative health research: A practical guide to meta-analysis and meta-synthesis*, 2001. For the meta-studies notion of Zhao, see Zhao, "Metatheory, metamethod, meta-data-analysis: What, why, and how?" 1991. For the notion of an integral cycle of learning and knowledge described above, see Edwards, "The integral holon: A holonomic approach to organisational change and transformation," 2005.
[67] Data means "the data of experience," as Wilber puts it, and includes objective, subjective, and relational data. To gather data is to observe and reflect on one's experience in any of these three realms of existence.
[68] See Abbott, *Chaos of discipline*, 2001 for a detailed discussion of the fractal nature of disciplines and methods.

[69] For Wilber's AQAL, see *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006. For Bhaskars's meta-reality, see *Meta-reality: Creativity, love and freedom*, 2002. For Torbert's DAI, see "The distinctive questions developmental action inquiry asks," 1999. For Schumacher's system of knowledge, see *A guide for the perplexed*, 1977. For Aurobindo's integral yoga, see *Integral yoga: Sri Aurobindo's teaching & method of practice*, 1993. For Nicolescu's transdisciplinary studies, see *Manifesto of transdisciplinarity*, 2002. For Galtung and Inayatullah's macrohistory, see *Macrohistory and macrohistorians: Perspectives on individual, social, and civilizational change*, 1997.
[70] For metatheorists being too abstract, see Skocpol, "The dead end of metatheory," 1987. For the criticism that metatheory is impossible or always hegemonic, see Lyotard, *The postmodern condition: A report on knowledge*, 1984. And for when metatheorists makes factual claims about the empirical world, see Ritzer, *Explorations in social theory: From metatheorizing to rationalisation*, 2001.
[71] Ritzer, *Blackwell encyclopedia of sociology*, 2006
[72] Ritzer, *Explorations in social theory: From metatheorizing to rationalisation*, 2001
[73] Thorne et al., "Qualitative metasynthesis: Reflections on methodological orientation and ideological agenda," 2004
[74] See Thomas, Brewer, Kraus & Rosen, "Two patterns of transcendence: An empirical examination of Wilber's and Washburn's theories," 1993
[75] With some notable exceptions. See, for example, Torbert, "The distinctive questions developmental action inquiry asks," 1999 and Esbjörn-Hargens, "Integral research: A multi-method approach to investigating phenomena," 2005.
[76] For metasynthesis, see Paterson et al., *Meta-study of qualitative health research: A practical guide to meta-analysis and meta-synthesis*, 2001. For metatriangulation, see Lewis & Grimes, "Metatriangulation: Building theory from multiple paradigms," 1999. For soft systems methodology, see Checkland, "Soft systems methodology," 1989. And for meta-ethnography, see Noblit & Hare, *Meta-ethnography: Synthesising qualitative studies*, 1988.
[77] Edwards, *An integral metatheory for organisational transformation*, 2008
[78] Bacon, *The new organon*, 1620/2000, aphorism 9

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