

Exploring Epistemic Wisdom: Ethical and Practical Implications of Integral Theory and Methodological Pluralism for Collaboration and Knowledge-Building

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For the 2008 Integral Theory Conference[§]

Introduction

Integral theory offers a powerful set of models (or meta-models) for making sense of our world. It also has implications for how we behave or "are" in the world. As with the story of the monk coming down from his isolated retreat in the mountain cave to interact with people in the village, it could be said that the ultimate application of integral theories and practices is in how people treat each other in an ethical/moral/practical dilemmas of lived experience. To add a point to this generic claim, we can inquire into the implications of integral theory for the *practice of building* integral theories. Or more generally, what does integral theory imply for how groups of people collaboratively build knowledge, build community, and come to decisions about "what is true" and even "what is right?" What does it *look and feel* like for the members of an organization or community to work together--to dialog, make decisions, coordinate actions, and learn—in an integral (or "second tier" or post-formal) way? In asking these questions we direct the focus of integral inquiry not toward wrestling with academia's grand debates, as Wilber does in much of his theoretical writing, but toward the pragmatic context of collaborative inquiry (still with a scholarly approach). This topic is generating increasing interest in the integral movement. Here are two examples. Forman & Esbjörn-Hargens (2008) advocate for a commitment to "improve Integral Theory by turning Integral Theory onto itself: an act of theoretical-applied self-reflection." And, in an interview published in Integral Leadership Review, Robb Smith, the CEO of Integral Institute, says "We are so good at analyzing...at creating a two dimensional analysis...from an AQAL perspective. But we are doing a very poor job, in my experience, of getting into the trenches and doing the hard work...of figuring out how do we make of this stuff work. How do we make it successful for those experiencing real, hard problems? This is what it means to look *as* and not just *at*." (Bellamy 2008, emphasis added).¹

[§] This version has slight modifications from the ITC-08 conference paper, including missing references were added.

¹ This is the case for most of the integral community, not because of ignorance or arrogance, but because the field is so new and its scope reaches so far and wide.

This topic is complex and wide open—ripe for collaborative inquiry (and "action research"). Many scholars have laid the groundwork and point the way forward in disciplines including organizational and leadership theory, transformational learning, and post-formal dialog and decision-making. My intention here is to bring attention to some aspects of the topic, as a small contribution to the ongoing inquiry. My point of departure is "methodological pluralism" (MP), the meta-method or approach underlying integral theory that prescribes transcending and including multiple perspectives and methods of inquiry.² In this paper I explore the skills and capacities needed to engage in MP and multiple perspectives. Along the way I elaborate on the related issue of "epistemic indeterminacy," the uncertainties, ambiguities, and paradoxes that arise when people engage in multi-perspective taking. The real transformational leverage of MP in collaborative contexts (where "the rubber meets the road") comes where it is cognitively, emotionally, and/or socially challenging to apply it. Applying MP in non-trivial collaborative contexts naturally exposes dissonance and psycho-social vulnerability. Here ethical/moral themes enter and become prominent. I call the set of cognitive/emotional skills and attitudes needed for dealing with these situations (at post-formal levels) "epistemic wisdom."³

The epistemic wisdom capacities needed to engage in MP (and multi-perspective taking) are practically the same as the capacities underlying post-formal collaborative engagement in general. Thus, by starting off focusing on MP we end up with skills and attitudes that apply broadly to post-conventional forms of dialog, decision making, knowledge-building, etc. After elaborating on the components of epistemic wisdom I will briefly mention approaches to supporting these skills through scaffolding, systemic tools, etc. (a subject left for development in other papers). These skills are more generally important for communities interested in reflective transformation, meta-disciplinary approaches, or ethically rich knowledge building practices.

With the recent advent of several journals and institutions focused on integral theories (and other trans-disciplinary studies), integral theory becomes even more of a community knowledge-building project, and it becomes ever more important to inquire into how members in integrally-informed communities of practice embody integral theory principles. I believe that integral theory has important implications for society's collective and collaborative endeavors in general, and that knowledge building and decision making can benefit from a deeper

² I will use "Integral Theory" to refer to Wilber's work, and "integral theory" to refer generally to the emerging body of scholarly work in the integral community. My purpose in the paper is to make claims about integral theory in general, not to critique or make claims about Wilber's Integral Theory, though I will draw from Integral Theory to make specific points.

³ The term "cognitive" has narrow and broad meanings. The narrow meaning of cognitive processes is in contrast with affective (emotional) processes. Usually I will use the more general sense of cognitive, referring to mental processes in general, including emotional and reasoning, conscious and non-conscious processes.

articulation of these implications. Integral theory is being applied in many contexts where communication, decision making, and knowledge building are central concerns. These contexts include education, organizational development, leadership consulting, and psychotherapy. A deeper understanding of the problems of epistemic indeterminacy and the importance of epistemic wisdom might equip integral practitioners to better help others grow and thrive. Also, integrally oriented communities or organizations are ideal "action-inquiry" testing grounds for highly evolved collaborative principles because of their commitment to maintaining a holistic systemic focus on all elements of body/mind/spirit, interiors/exterior, and the practical/theoretical.

Methodological Pluralism

Methodological pluralism (MP) is a foundational principle in integral theory (and in Wilber's Integral Theory).⁴ It is an approach or attitude for dealing with diverse claims, models, modes of inquiry, etc. Wilber describes three principles for integral MP: non-exclusion, enfoldment, and enactment (Wilber 2005).⁵ He captures the essence of MP in the non-exclusion principle that "everybody is right" (to which he adds the caveat "but not equally right"). More precisely, all (legitimate or valid) perspectives have some truth to offer. Perspectives can be thought of as world views but are also methods of inquiry--the injunctions, procedures, assumptions, etc. build into a paradigm. Different paradigms bring forth different knowledge and, notes Wilber, practitioners in one paradigm should be very cautious in critiquing truth claims drawn through other paradigms. Every paradigm is like a lens or filter through which reality is viewed, and there is no perspective that is so privileged that it does not have this limitation. In addition, every belief or model springs from a real person or group, and is limited by the numerous (and now well documented) limitations in human reasoning (some of which I will mention later).

The caveat in "everybody is right...but not equally right" is that some perspectives are more inclusive than others and thus subsume or contain more or better truths (the enfoldment principle). Also, Wilber maintains that individuals or groups that are more developmentally advanced usually have a stronger or more inclusive grasp on truths (for claims related to the developmental line in which they are developmentally advanced) (the enactment principle).

⁴ From Wilber's 2006 Excerpt C: "The pragmatic correlate of AQAL meta-theory is a set of practices (or meta-paradigms) referred to as Integral Methodological Pluralism, which attempts to honor and include the many important modes of human inquiry already arising in this spacious Kosmos."

⁵ Wilber has coined the phrase "integral methodological pluralism" (IMP) for his specific methodology. My use of "methodological pluralism" (MP or iMP) refers more generally to an integral approach to the established academic use of "methodological pluralism."

The validity or usefulness of Integral Theory or the AQAL meta-model is not our concern here. I focus on the spirit (rather than the "letter") of Wilber's IMP, which is the approach or attitude of a "gracious and spacious embrace" that allows something like an integral theory to emerge in the first place. Here I eschew debate about the grand claims that scholars make in texts and look toward the everyday interactions of people who are engaged in collaborative efforts at discovering "what is true" and "what is right" for them. This stage may be less illustrious and more mundane, but clashes of belief on this workaday stage are every bit as important and difficult to manage. And, the character of grand scale theories and world-views might depend critically on the character of the mundane human interactions that underpin their development.

Product to Process, Ontology to Epistemology, Meta-Model to Paradigm. In fact this paper takes the assumption that the nature of a product depends critically on the nature of the process producing it. Wilber's work is experiencing an increasing shift from product to process, i.e. from the articulation of meta-models and "orienting generalizations" about "what is" to include an exploration of method itself—*how we (can) know* what is. This turn constitutes an increasing emphasis on epistemology vs. ontology—i.e. on the nature of *knowledge* vs. the properties or constituents of "*reality*." This as a shift in emphasis, not a change in content, as Integral Theory has always concerned itself with both the ontological and the epistemological. In recent writings Wilber says "an integral paradigm is a set of practices, not theories" and "this is a paradigm of paradigms...a practice of practices and not a theory of theories" (Wilber 2005).

Perhaps because paradigms are amorphous almost by definition, Wilber does not systematically lay out all of the components of what the Integral paradigm is. Within Wilber's work are several elements of what may constitute an integral (meta) paradigm, including the AQAL model, the eight primordial perspectives, and his "three strands of knowing" (Wilber 2001). But fundamental and prior to all of these is MP, the opening up to and dealing with a sufficient set of perspectives as one engages in inquiry. (As explained below I use the phrase "dealing with" rather than "integrating" or "transcending and including" because sometimes just managing, acknowledging, or opening awareness to perspectives is what is called for.)

Perspectives on perspectives. Before going further let us unpack the concept of "perspectives"—the cognitive (or lived) vantage points from which an observation, idea, or thought is posited. Wilber's AQAL model explicitly mentions several types of perspectives. First are the methodological perspectives of the "8 primordial perspectives" or zones (including phenomenology, structuralism, empiricism, ethno-methodology, etc.). These are

formal categories for empirically-based inference categorized by whether one is looking at the interior or exterior of an individual or collective entity from the inside or outside (Wilber 2006). Related to the enactment and enfoldment principles of MP mentioned above, participants (or groups) can also vary in "where they are coming from" along other dimensions of the AQAL model: their stage (level) along a particular developmental line, and any of the numerous states and types mentioned in the model. In addition to those mentioned in the AQAL model, we can more generally say that every socio-cultural or identity group represents a particular perspective.

In addition to the perspective from which an individual or group makes a claim, I will add one more perspective on "perspectives"—that, a multitude of perspectives exists *within* each individual. One can take the perspective of different social roles one holds. For example, one might say "as your boss I would say....while as your friend I would say...and as another father I would advise that you...". We also harbor different psychic perspectives or voices within us. As in Voice Dialog one can speak from ones' inner critic, vulnerable child, protector, Big Mind, etc.

MP calls us to maintain an awareness of the existence and impact of these various perspectives (internal and external), to deal productively with the them, and, as I will describe in more detail later, to be able to reflect and dialog explicitly *about* multiple perspectives (with what I will call "epistemic wisdom").

Why MP is difficult. Up to this point I have advocated for becoming aware of and engaging with multiple perspectives and methods for knowing (using MP) and given some sense of the multitude of sources and characteristics of such perspectives and methods. The injunction to allow for multiple perspectives seems so simple and obvious. It is what we all think we are doing most of the time: considering all of the valid ideas in a situation and trying to integrate (transcend and include) them, while discounting or bracketing ideas that do not seem valid. But, of course, the problem of how people in fact deal with diverse and conflicting sets of ideas, information, models, etc. is deep and wide reaching, and has serious implications in both knowledge building and ethics. How people answer tacit questions like: "which perspectives and information sources should I consider?" "how confident am I about this?" "how do we proceed when we strongly disagree?" "do I know enough about this to take action?" "should I change my mind?" "can I be transparent about my uncertainty or errors?"—strongly determines the interactive style and ethical character of groups (organizations, institutions, families, etc.).

The fact is that opening to new perspectives is often quite difficult. Let's look more closely at why, because if MP is so important to integral or second tier ways of being, we can not support MP if we don't understand why it

is problematic in practical situations. The difficulties have to do with both cognitive load (items 1 and 2 below) and emotional load (items 3 and 4), and our resilience (or lack thereof) in the face of these mental loads.

1. Span Complexity. Opening to multiple perspectives increases the complexity of the information people have to deal with. Span complexity is about the sheer number of pieces of information, or the number of inconsistent ideas, people are exposed to. Since each person (or group) has a finite capacity for complexity, one has to compensate when one is exposed to more complexity than one can deal with, often by ignoring some perspective or information source. All of the factors mentioned here apply to the capacities of both individuals and groups. A group may be able to process more complexity than any of its individuals (collective intelligence), but it might also exhibit a lowest-common-denominator effect (e.g. herd mentality). **2. Hierarchical complexity** (depth complexity). Ideas (concepts, theories, even intuitions) build upon each other, with lower level ones integrating into single ideas (constructs) at a higher level of complexity or abstraction (Fischer 1980; Commons & Richards 1984). Constructs at each level can be integrated or crystallized at a yet higher level to produce a hierarchy of constructs (ideas). As one lives and learns in each of the domains of life (general task contexts such as mathematics, music, social relationships, and specific contexts like chess, tennis, Greek history, etc.), one gradually builds constructs at successively higher levels of complexity (and abstraction or generalization). One may not be able to assimilate a new perspective because it calls for a level of abstraction or generalization that one has not yet developed. **3. Dissonance.** There are both cognitive and emotional elements of why MP is difficult. The term "cognitive dissonance" refers to the feelings of discomfort one experiences in trying to consider incompatible ideas (it can also refer to the discomfort experienced when one is overwhelmed with information or when observations or actions are inconsistent with beliefs). The emotional part of the brain is engaged and often plays a critical role in problem solving, dialog, decision making, and other "cognitive" activities (Damasio 1999; Goleman 1995). In general, the brain finds uncertainty and ambiguity painful. **4. Ego attachment/identity.** Finally, many of the perspectives or ideas that people fail to assimilate or accommodate to are rejected or ignored simply because they clash with ideas that one holds dear (consciously or unconsciously). (Attachment is a subtype of the dissonance phenomena above, but important enough to warrant its own category.) This is clearly true in the everyday interactions at home and the workplace, but it is also occurs in formal knowledge-building communities. It is easier to ascertain blind spots and resistance to information in others than in oneself, but one can develop an awareness of the inner sensations of

resistance, dissonance, dismissiveness, threat, etc. that signal that one's sense of self or a closely held idea is being challenged.

The problem of indeterminacy

The ability to process multiple perspectives is part of an overlapping set of skills and attitudes that I will call "epistemic wisdom." Epistemic wisdom includes the capacity to deal with "epistemic indeterminacy" (EI), which is uncertainty, ambiguity, fuzziness, paradox, and dynamic unpredictability in communication, concepts, and models (Murray 2006).⁶

As humans "tetra-evolve" through the four quadrants comprising the human system (Wilber 2000) cognition and knowledge becomes more complex, culture and society become more complex, institutions and infrastructures become more complex, and our tools and artifacts become more complex. Each of these elements increases in complexity in *response to* the others, in an entangled spiraling dance. Along this journey some knowledge emerges that transcends earlier knowledge, and acts as a more inclusive, robust, accurate, and useful understanding of some corner of the life-world. Yet overall, the ongoing increase in complexity *outstrips* the increase in knowledge and understanding.

Though it may not be true in some local pockets of knowledge, the largest sense, the more we learn the more we see that we *don't* know. People create and become aware of successive layers of cultural, economic, and environmental complexity beyond what can be fully understood, much less predicted or controlled. For example, the decoding of the human genome, rather than solving the mysteries of biology, has opened up vast horizons of unknown. Scientists have barely begun to understand the 95% of DNA that was once called "junk DNA" because they could not identify its function. Similarly, in cosmology scientists have been forced to postulate "dark energy" and "dark matter" as enormous (and very useful) fudge factors to account for the fact that all of the known matter and energy sources account for only 5% of the forces influencing the observed motion of stars and galaxies. These examples show how investigation opens up horizons that, technically, might one day yield to substantial understanding. But hard (inescapable) limits to our knowledge of the world are also coming to light. In physics principles such as the Uncertainty Principle from quantum mechanics and the Butterfly Effect from chaos theory have made us aware of the limits of human knowledge and control. And, most importantly, through the cognitive and brain sciences we are coming to understand the limits of cognition and reason itself. Research into so-called

⁶ The words "epistemic" and "epistemology" refer to knowledge: what it is, how it is validated, what its limitations are, how it is created, how it is transferred. Epistemic wisdom could also be called epistemic sophistication, flexibility, fluency, or awareness.

"bounded rationality" (Kahneman et al. 1982; Sunstein 2002), is shedding light on cognitive biases and systematic errors found in individuals regardless of occupation, intelligence, or expertise. It may be no surprise to the reader that people's thinking and decision making is often at odds with what would classically be called logical or rational, but research is showing that patterns such as "confirmation bias," "overconfidence," "source amnesia," "distinctiveness effect," and "loss aversion" are ubiquitous and deep seated, and that no individual or group is immune from them (Myers 2002; Elster 1999). Discoveries that the bulk of human "thought" happens unconsciously or pre-consciously have added more evidence for the fallibility of "pure" reason and logical thought. In addition to flaws in reasoning, scientists are discovering surprising limitations to the accuracy of human memory and perception (Travis & Aronson 2007; Wilson 2002).

Moving from hardwired or genetic limitations of the mind to the intersubjective realms of experience, scholars are discovering important phenomena in language, meaning sharing, and group behavior. Researchers have discovered that almost every term and concept we communicate with has a fuzzy boundary, such that no precise definition (set of necessary and sufficient conditions) can capture its actual use (Mervis & Rosch 1981; Lakoff & Johnson 1999; also noted in Wittgenstein, 1953). Thus almost any statement or claim will have an indeterminate meaning. George Lakoff shows how abstract concepts in the mind are constituted by multiple, often incompatible, conceptual metaphors (Lakoff & Johnson, 1999, p. 71). For example, "in philosophy, metaphorical pluralism [multiple metaphors for the same concept] is the norm. Our most important abstract philosophical concepts, including time, causation, morality, and the mind, are all conceptualized by multiple metaphors, sometimes as many as two dozen. What each philosophical theory typically does is to choose one of those metaphors as 'right,' as the true literal meaning of the concept" (Ibid., p. 78).

So much that is important to think about does not lend itself to simple black and white (true/false or right/wrong) categorization, yet the mind often forces reality into these boxes, especially when emotions are triggered, in its attempt to efficiently process complex information, create certainty, and take immediate action (Goleman 1995; Damasio 1999, 2003; Matthews et al. 2002). Scholars are also investigating the nature of higher level thought forms such as mental and formal models and theories, and are showing how they are vulnerable to paradigmatic and socio-cultural bias, as well as being limited to the unavoidable imprecision of language (Lakatos 1976; Kuhn 1970).

All of the above phenomena contribute to epistemic indeterminacy (EI). EI can be ameliorated in many situations, but to some degree it is unavoidable and inherent to knowledge, thought, and communication. And, EI is exacerbated and thus needs even more explicit attention in approaches that incorporate MP and multiple perspectives. EI is difficult to deal with for the same reasons MP is difficult to use: span complexity, hierarchical complexity, dissonance, and ego/identification. It is easy to understand how EI shows up in research studies and how it affects people in general. It is more challenging to consider how it affects our own communication and decision making processes and the certainty with which we hold our own beliefs.

Indeterminacy, MP, and ethics. EI is strongly implicated in ethical themes and dilemmas. In fact, a major theme of this paper is that ethical concerns and epistemological concerns are tightly interwoven. This comes out clearly in the work of developmentalists (including Kohlberg, Kegan, Graves, Basseches, and Perry). At a post-conventional level of development, ethics becomes as much (or more) about how we go about the communicative *processes* of determining what is right for us as it is about following pre-given social rules. In the complex situations modern citizens and employees find themselves in, determining "what is right" depends on determining "what is true" about the situation (e.g. "were they manufacturing weapons of mass destruction?"). And determining what is true is fraught with the problems of EI. Conversely, success in determining "what is true" rests on the ethical properties of the truth-finding process.

Philosopher Jurgen Habermas shows that for collaboration to move us in the direction of more adequate (if still tentative) truths it must have certain properties that are fundamentally ethical/moral (Habermas 1993, 1999). These properties include: that sufficient mutual understanding regarding key concepts and assumptions is established; that all important or relevant perspectives are heard; that dissenting opinion is not suppressed; that speech is honest and without hidden agenda; that the power dynamics of the situation are reflected upon; and that participants actively engage in opening up to the sometimes unsettling world views of others. Problems in any of these areas can result in systematic bias or distortion in the outcomes of knowledge-building. Thus, *moral* constructs such as freedom, equality, empathy, sincerity, inclusivity, reciprocity, integrity and mutual regard are deeply entangled with the *knowledge building* processes of discovering ever more adequate truths.

Opening to new perspectives is an inherently vulnerable process. One experiences vulnerability and the accompanying discomfort both in the moments of "not knowing" and in the moments of letting go of (or gaining distance from) beliefs that one is identified with. If MP is to have an impact as a community practice, the extra

vulnerability that it produces must be compensated for by an increased ethically-driven commitment to creating a "safe container" within the group. In addition to the "softer" elements such as care and empathy, ethical behavior also entails more active elements such as accountability, dedication, or rigor. When any community tries to self-improve by "raising the bar" in terms of any of these elements, it creates (healthy) social pressures that introduce additional levels of vulnerability, which must also be accounted for (as members negotiate how to "hold each other accountable" to the new standards). Epistemic wisdom includes the skills needed to navigate such emotionally/socially challenging situations.

Exploration the skills and attitudes of epistemic wisdom

Next I will look more closely at the set of skills and attitudes that comprise what I am calling "epistemic wisdom." These capacities support the knowledge-building approach of MP, first because epistemic wisdom brings one to a *prior* realization of the importance of opening to multiple perspectives, and second because *after* one opens to multiple perspectives these skills are needed to deal with the resulting complexity of ideas. Before looking in more depth at the sub-skills of epistemic wisdom we will distinguish two general thought modalities.

Convergent and Divergent modalities. When one looks at how individuals respond to complex situations or multiple perspectives that seem incompatible, one can distinguish two general modalities or movements, one convergent and the other divergent. The **convergent** process is captured in phrases like "Yes!" "I see!" "Eureka!" In the face of complexity a pattern emerges, a higher whole (holon) forms, and one creates new meaning. One gains understanding, control, and confidence over the information or situation. The **divergent** process is captured by phrases like "Wow!" "Ugh!" "Yikes!" The experience of allowing for the full novelty, complexity, magnitude, inscrutability, or beauty of a situation can feel pleasant or unpleasant.⁷ I propose that, because of the difficulties in assimilating multiple perspectives noted above, we are often too reliant on the convergent process, rushing to conclusions, ascribing too much certainty to models, in an attempt to avoid the sometimes stunning impact and vulnerability of the unknown or unknowable (and see Fischer & Stein 2008 on "dark knowledge"). MP offers an invitation to a vigilant awareness in the balance of both the convergent and divergent modalities in the face of complexity and multiple perspectives. Unlike most treatments of integral theory, which propose models or practices which are the product of convergent thought, throughout this paper I invite the reader to also think about the importance and nature of the divergent modality, which gets less attention but is just as important.

⁷ The convergent mode is roughly Agape-driven, while the divergent mode is roughly Eros-driven.

From ontological humility to epistemic wisdom. Below is a list of speech acts that might indicate epistemic wisdom at a basic level. Although these speech acts are mundane, they point to an attitude that is both scarce and important in many contexts.

- I really don't know. But my current best guess is...
- I have two seemingly opposing thoughts or impulses going on here, ...
- I was wrong about that. Thanks to your comment I checked it out and ...
- I felt some frustration and anger upon reading your comment. Let me try to explain...
- What assumptions are we making...?
- Would you be willing to tell me what you think I am saying, as you understand it?
- Both perspectives seem valid to me, but in different ways, as follows....
- What is our purpose here? Is our process aligned with it?
- Would some of you like to start a separate discussion about how we can make this dialog more productive?

Fred Kofman, in his book "Conscious Business" (2006) talks about "Ontological Humility." Ontological humility is the capacity to say (feel and believe) that "I don't know" or "I was wrong" in situations that might involve vulnerability. Kofman notes that ontological humility is an important element in conscious business (and, by extension, in all collaboration) because it allows individuals and organizations to overcome the limitations of unexamined mental models. Ontological humility is a divergent gesture—"I was wrong" "I don't know" and "what do you think?" allow for the release of unsound beliefs and an opening to new information. Epistemic wisdom goes a step further to deal directly and proactively with the indeterminacy inherent in knowledge and communication. Having a deeper understanding of the nature of knowledge allows one to structure dialog, knowledge building, and decision making processes in ways that anticipate EI and allow for more flexible and adequate outcomes.⁸ For example a deep understanding of how concepts have indeterminate meanings may change the character of a dialog; and a deep understanding of the influences of power dynamics in social interaction may change the character of leadership and decision making.

It has become a common maxim in the integral community to note that "the map is not the territory." This divergent gesture, acknowledging that the model or theory (usually AQAL in this case) is not the whole truth, shows ontological humility. But it often does not go far enough. Applying a deeper epistemic wisdom would involve being specific about the limitations of the model; exploring the contexts for which the categories of the model start

⁸ In comparing the construct of epistemic wisdom with Kofman's ontological humility, I do not mean to imply that Kofman's book does not incorporate many of the elements of epistemic wisdom—it does.

to break down or become less useful; being explicit about the underlying assumptions in the model and what cautions those assumption point to; mentioning alternative models that are useful where the model is weak; etc.

Epistemic wisdom's component skills. What I am calling epistemic wisdom includes a rough conglomeration of overlapping and interdependent skills and attitudes—I will not try to give an exact definition, but these capacities include the abilities to:

- put yourself in someone else's shoes (cognitive empathy and social perspective-taking);
- consider multiple perspectives, deal flexibly with uncertainty, ambiguity, change, disagreement, and paradox; (dialectical thinking);
- reflect on one's biases, "shadow," tacit intentions, emotional state (social/emotional intelligence);
- reflect on one's tacit beliefs, mental models and monitor problem solving process, the level of certainty of one's inferences (metacognition);
- reflect on and dialog about the quality of communications (meta-dialog);
- consider the big picture, higher level needs and contexts; focus on the needs of the group as a whole; consider the perspective of all stakeholder groups (systems thinking);
- understanding the nuanced differences in how people create and use fact, truth, belief, meaning, etc., and the numerous ways that knowledge is validated (epistemological skill).

Elements of the skills of epistemic wisdom have gone by various names in scholarly research and theory, including: metacognition (Winne 2001); dialectical thinking (Basseches, 2005), proprioception of thought (Bohm, 1996), negative capability, reflective judgment (King & Kitchener, 1994), cognitive empathy (Vetlsen, 1994), self-distanciation (Kögler, 1992), strategist action logic (Torbert & Associates, 2004), and the metasystematic order of hierarchical complexity (Commons & Richards, 1984).

Meta-everything. Epistemic wisdom points to a developmental level in which the individual has a meta-level understanding of mental and communicative processes. As experiences become more diverse and complex, and as life situations become more complex and demanding, the mind is challenged to create ever higher orders of self-organization and meaning. Piaget called the process of cognitive self-organization at successively higher levels "reflective abstraction" (Piaget 1972). Commons uses the term "hierarchical complexity" (1984), and Kegan (1994) employs the related concept of "subject to object " development. Epistemic wisdom involves understanding human processes from a hierarchically more abstract level or meta- level. The list of skills for epistemic wisdom above involves meta-capacities such as:

- meta-cognition (thinking about thinking)
- meta-knowledge (knowledge about the nature and limitations of knowledge)

- meta-learning (learning how to learn, also called triple-loop learning)
- meta-dialog (dialog about how we engage in dialog)
- meta-decision making (making decisions about how we will go about making decisions)
- meta-affect (investigating the feeling of our feelings; somatic awareness of feeling states)
- meta-rationality (making rational decisions about when to employ rational/logical thinking vs. intuitive, emotion-based, or other non-rational modalities)
- meta-compassion (reflecting on and caring about how we care for others)
- meta-leadership (supporting leadership in others)
- meta-transparency (if one can't be transparent in a situation, one can still be transparent about the fact that one is not transparent, and explain why)

Physicist-philosopher David Bohm suggests that "underneath [humanity's dilemmas] there's something we don't understand about how thought works" and that what is needed is a "very deep" and "very subtle" *awareness of thought itself* (Bohm 1996). Albert Einstein is noted to have said that "the significant problems we face cannot be solved at the same level of thinking we were at when we created them." We have to go "meta." And the most important area in which to do so is in understanding the overlapping domains of mind (thought/knowledge/communication, etc). As should be evident by now, this is not (only) a philosophical issue, it concerns the sophistication of the common sense intuitions people bring to bear on a daily basis. The mind is our primary tool for creating our world yet people in general understand so little about it, and so often do not care to try.

Is "epistemic wisdom" too general to be useful? This paper is an exploratory treatment meant to direct attention to some under-discussed relationships between "being integral," collaborative knowledge building, ethics, and a skill set called epistemic wisdom. I have introduced epistemic wisdom as a catch-all construct that includes a broad set of skills, attitudes and meta- capacities listed above. Many of these skills and capacities have a whole research subfield dedicated to their study. Does using a single term to refer to the whole group of capacities enable confusing over-generalizations that gloss over important differences? Undoubtedly to some degree it does. In addition, epistemic wisdom (like the term "wisdom itself") is so general that it may not be practical to try to measure or assess it, as compared with its more precisely defined constituent skills.

However, these capacities of epistemic wisdom are massively interconnected and interdependent as used in authentic contexts, such that isolating them for theory and clinical study poses its own problems of potential reductionism and practical irrelevance. The sub-skills of epistemic wisdom share a certain "family resemblance" that allows them to be meaningfully grouped. That the construct has some intuitive validity can be argued by noting that if one looks at the list of speech acts above one can hear a coherent "voice"—a vaguely recognizable

level of skillfulness and wisdom (which we associate with second tier development). The same is true for the list of meta- capacities listed above. It serves our purposes to use the generic term because (1) it usefully points to a set of skills implied in integral and second tier thought; and (2) the relationships charted in this paper between the cognitive, the emotional/social, and the ethical apply to the entire set of skills. Referring to them as a unified though vaguely defined set allows us to point toward an important yet undefined territory of human capacity (alternative terms such as "second tier capacities" are possible, but that begs the question of what they are).

The sub-skills of epistemic wisdom could also be grouped according to developmental "lines" in AQAL theory. Delineating separate semi-independent lines of development has the advantages and drawbacks mentioned above in theory and practice. Our purpose here is to point to the interdependencies and overlaps of these skills rather than their differences. In fact, we agree with theorists who say that differentiating human capacities into separate skills or lines is largely artificial. Kurt Fischer, a leading developmental theorist, claims that skills develop (both genetically/phylogenetically and developmentally/ontogenetically) in response to the demands of real life task situations. He claims that "the skill level that a person displays...cannot be considered independently of the context in which that skill is assessed" (Fischer & Farrar 1987, pg. 647). Some primitive human skills such as those dealing with reproduction, eating, and territory, seem to operate fairly independently because the task situations or life-needs they address are relatively independent. But the complex human social contexts of communication, decision making, and knowledge building have massively overlapping characteristics such that the skills developed to meet these needs should be expected to be equally interdependent and difficult to separate.

In *Integral Spirituality* (pg. 58) Wilber says "there are at least a dozen different developmental lines--cognitive, moral, interpersonal,...each of the great developmentalists tended to stumble upon onto a particular developmental line or stream to explore in great detail." However, I argue that this seemingly serendipitous fact points in another direction. It shows that human behavior is so complex that it acts as a type of Rorschach Test of scientific theories of mind—if we study human behavior rigorously from the perspective of any of these constructs we observe a pattern. In skillful behavior in authentic contexts such as leading an organization, collaborating on a research project, or engaging in international diplomacy, it is difficult indeed to determine clear lines between emotional intelligence, social intelligence, cognitive intelligence, reflective abstraction, "leadership skill," etc.

The rigor of well-defined sub-skills (or levels) is needed to make continued progress in research and theory. However, we do not need to wait for rigorous evidence and models to begin to refer to and support these valuable

skills. Very little of the interventions used by educators, leadership consultants, or psychotherapists, can claim extensive and rigorous empirical proof of effectiveness. Rather, numerous alternative approaches claim partial empirical evidence. This (another example of indeterminacy in knowledge building) is primarily because of the complexity of the human condition and the difficulty and expense of research with strong "ecological validity" (validity in authentic contexts).

Developmental concerns. Clearly, epistemic wisdom, in its full manifestation, is developmentally advanced (many of its sub-skills align with post-formal levels in various developmental theories). Deeply reflective and abstract thought are relatively advanced mental processes that develop slowly in individuals if at all. This might seem to severely limit any goals to support its acquisition or use. However, there are several arguments for supporting and using epistemic wisdom in larger contexts. First the set of skills and attitudes exist in varying degrees of depth. That is, skills such as "metacognition" and "cognitive empathy" appear weakly at some point and deepen through subsequent levels. The second and third arguments, involving emotional factors and group-level interactions, are given below.

Emotional state vs. developmental stage. It is easy to imagine a person who thinks and acts from an authority-based conventional level of reasoning in one context, such as in their church community, and thinks and acts from a more systematic, scientific and post-conventional level of reasoning in another context, such as at work. One can also note how a person's intellectual and social/emotional "IQ's" can drop dramatically when the brain is "hijacked" by destructive emotions in stressful situations (Goleman 1999; Damasio 1995), and that, at a more subtle level, emotional state may be affecting most rational thought. Similarly, we observe that for ourselves, certain groups of people tend to bring out the best in us, and in their presence our creativity, awareness, and productivity is supported to reach its full potential; while in other groups we are carried in a pattern of least-common-denominator downward spiraling that brings out the worst in us and others

We can draw several conclusions here. First, it is hard to say what the results of a developmental stage assessment (to say nothing about a rough "eyeball" or armchair evaluation) imply for a particular situation without additional information about state and context factors. Second, a person's predominant "developmental level" must be seen as an average (or perhaps ceiling, depending on how it is measured) capacity that exhibits a very wide performance range depending on context. If we envision developmental levels in terms of as a bell curves. In comparing two adjacent developmental levels, rather than imagining two skinny bell curves that barely touch each

¹⁰ Senge 1990, pg. 190 in summarizing the "credo" from Hanover Inc.'s leadership philosophy.

other, imagine two fat bell curves with significant overlap. This means that the predominant developmental level may not always be a good predictor of a person's capacity to succeed in a given situation (especially in a group context), given the wide variability in performance vs. competence. Factors such as culture, emotion intensity, support, etc may have a significant effect on performance.

Scaffolding, leadership, and group effects. The next point follows directly from the previous one. Individuals with a wide range of developmental levels might still be able to access the basic skills of epistemic wisdom if put in a supportive context. Thus it is reasonable to propose that context, which can set the stage for certain states such as emotional safety and meta-cognitive scaffolding, can have as much to do with a group's overall performance level as the average assessed developmental level of the individuals.

Supporting Epistemic Wisdom

Having described epistemic wisdom and argued for its importance, I now briefly consider how it can be supported. I will keep my conjectures general and tentative, to serve as pointers to further work.

The power of attention/intention. My first conjecture is that when trying to improve or transform human behavior the first step of bringing attention to a new phenomena is extremely powerful in and of itself. As has been said, "it is more about asking the right questions than having the answers." In the many examples of meta-capacities above, the first step is to focus attention on questions that arise at the meta level. Once human intelligence is focused in a particular direction its adaptive capacities can self-organize toward transformation.

Don't forget the ethical/moral factors. My second conjecture, argued above, is that in practical situations much of what limits people's performance in areas of epistemic wisdom are contextual and emotional factors such as social vulnerabilities and ego/identity attachments. The skills of epistemic wisdom are developmental, but the basic attitude of openness or curiosity to other perspectives is available to many levels. This can point to the need for individuals to develop emotional/social/ego capacities, but there are also systematic or context implications. The ethical/moral elements of organizational culture, such as mutual regard, trust, forgiveness, appreciation, etc. might have a strong supportive effect.

Focus on systems-level support. As alluded to above, we can approach learning and transformation from two complementary directions. We can work on helping individuals transform through interpersonal interactions including instruction, therapy, coaching, and other direct interventions, and/or we can create *systems* that more indirectly support the desired changes. My third conjecture is that we can get significant mileage by focusing on the

systems level—on artifacts/tools, procedures, policies, etc. E.g. what systemic structures might support a culture of appreciation, or greater transparency in decision making, or more consistent checking on the quality of information sources?

To begin to suggest a framework in this area, we can note from above that there are several perspective from which to approach supporting the skills/attitudes (or any sub-skill) of epistemic wisdom: **Modeling.** Leadership can model the use of these skills, and explicitly reflect upon their thought process and reasons for inferences and decisions. This is a good option for when the skill is largely tacit or not understood well enough. **Instruction and coaching.** When specific sub-skills are understood well enough to be translated into explicit rather than tacit knowledge, direct instruction, coaching, apprenticeship, etc. are possible. **Social safety and organizational culture.** As mentioned above, creating a non-threatening and collegial environment can have significant effects. **Practices/procedures/models.** One can introduce protocols, models, etc. that frame and structure the sub-skills of epistemic wisdom. **Tools and artifacts.** Practices, models, cognitive habits, reminders, etc. can be embedded into worksheets, web sites, performance support tools, etc.

We do not have room in this article for more specific suggestions, but refer the reader to other papers in which we suggest practical methods for supporting epistemic wisdom. In Murray (2006b) I explore attitudes for leadership and mentoring, noting suggestions from the literature related to epistemic wisdom such as:

- Framing the models and procedures they promote in reflective and transparent ways;
- Setting and evaluating goals using "multiple bottom lines" that include ethical and systemic concerns;
- Supporting the autonomy and feedback systems that allow for self-organization.

In Murray (2005) I elaborate on some specific knowledge building methods related to epistemic wisdom, including:

- Anchoring abstractions with examples;
- Indeterminacy analysis—the analysis of the most important points of uncertainty, ambiguity, or fuzziness in a model or claim;
- "Minimum ontological commitment" and prudence with using integrating models and more focus on component principles;
- Differential analysis—identifying key differentiations, generalizations, and integrations in a model or claim, with an emphasis on reusable differentiations.

In Murray and Ross (2006) we discuss methods and structures for dialog that support epistemic wisdom in groups.

And in Murray (2007) and Murray & Benander (2005) we discuss how online communication and decision support

tools can be modified to scaffold the skills of epistemic wisdom, so that the core values and ethical priorities of an organization can be supported in the course of everyday collaborative work.

Conclusions

Second Tier Communities. In a sense integral theory and practice, including Wilber's work and the work of many of the leading thinkers drawn to the efforts of the Integral Institute, arises from a need to move beyond the limitations and conundrums of modern and post-modern forms of thought and activity. Frustrated by compartmentalization, tunnel vision, and irrelevance in much of modern thought, those drawn together under the banner of integral theory share a desire for approaches that integrate mind/body/spirit; nature/self/culture; science/morals/art, the true/good/beautiful, knowing/acting/being, etc. This emerging territory is variously called second tier, integral, post-formal, or post-post-modern within the integral community.

I happen to find this narrative compelling and share the general intuition. But the point that I want to make here is that this inner territory of mental and cultural capacity called second tier can *not* be bound to any particular theory—including AQAL theory. This territory must be characterized by a set of *capacities* (cognitive, emotional/social, etc.) in the same way that "formal operational thought" and "post-conventional thought" point to cognitive capacities, not to particular theories, models, or world-views a person must hold. Our discussion of epistemic wisdom is one attempt to describe that skill set.

Integral knowledge-building communities. The deep and pervasive limitations to reason and knowledge that have come increasingly to light through cognitive science and postmodern critical thought must, or at least should, be a cause for a humbling pause and reflection for those of us engaged in creating or using theories and models of the life-world (indeed, to any engaged in collaborative efforts to find truth, meaning, etc.). Certainty may be a thing of the past, but beyond postmodern critique and deconstruction we must find ways to build knowledge and meaning to answer pressing questions and take action in ways that, as best as we can, take into account the known limitations and indeterminacies of thought and communication.

This paper makes several main arguments. The first is that factual and theoretical questions of "what is true" and ethical questions of "what is right" are inextricably interdependent. The integral community's aspirations to develop and apply ever more transcending and including perspectives on the life-world must be accompanied by a deepening attention to the moral/ethical context in which integral models are developed and used. The quality or validity of knowledge and practice depend in part upon the ethical capacity of communities of practice, because

moral/ethical problems (such as imbalances of power, denial, irresponsibility, self-absorption, unconscious shadow intentions, etc.) can introduce systematic distortions in knowledge and purposeful action. These ethical considerations may take the form of social generosities, such as ontological humility, self-distanciation, and reflective listening, as well as more rigorous considerations such as accountability and integrity.

Second, epistemic indeterminacy (uncertainty, ambiguity, paradox, etc.) is omnipresent and increasingly problematic in the (post-post) modern context. It raises its head when we open to multiple perspectives, as the modern context compels us to do. It becomes even more salient as communities evolve into higher developmental territory (e.g. second tier). The set of skills and attitudes I am collectively calling "epistemic wisdom," which can productively address epistemic indeterminacy, involves key moral/ethical capacities.

Third, though these capacities are developmentally advanced in their full bloom, there is every reason to believe that, in their basic forms, they can be supported and strengthened in most communities. Importantly, I have argued that in many authentic contexts, performance that exhibits epistemic wisdom is constrained by state-based (in addition to stage-based) phenomena. Individuals may fail to reflect upon an important perspective because of the feelings of fear, vulnerability, etc. that may come up, or because thinking along those lines threatens ego/identity structures. Groups may fail to exhibit the capacities of epistemic wisdom because the organizational culture does not provide enough psycho/social safety, incentives, or role models to do so. I therefore advocate for systemic approaches that embed participants in environments that actively support and challenge them.

Peter Senge says that "A leader's worth is measured by their contribution to other's mental models."¹⁰ We could add in resonance with other suggestions in Senge's book that a leader's worth is also measured by how well they support others' reflecting on and inquiring *about* their mental models—or more generally, a leaders' contribution to others' epistemic wisdom.

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