Embodied Realisms and Integral Ontologies: Toward Self-Critical Theories

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Dancing with Sophia: Integral Philosophy on the Verge

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Introduction: ontological pink elephants and self-critical theories

Ontological claims in philosophy attempt to describe the nature of ultimate or foundational components of reality. At stake is what can be considered *real*—vs. epiphenomenal or derivative; imaginary or fictitious; merely subjective or illusory, or fallacious and groundless. And differences about what is considered real or to exist is often at the core of disagreements about the *truth* of claims—giving ontological considerations significant importance in dialogue that are not explicitly ontological. In other papers I have discussed Integral Theory from the perspective of post-metaphysics and epistemology, metaphysics and mysticism, knowledge-building processes, and ethics and here I wish to focus on the relationships between ontology and Integral Theory.[1]

Integral Theory (IT) has been criticized (primarily from the perspective of Critical Realism, CR) for committing the "epistemic fallacy" in conflating statements about being with statement about knowledge of being, and in thus prioritizing epistemology over ontology. IT is a meta-theoretical framework grounded in perspectives (as "primordial") and is motivated by goals to explain and advance the human condition (in terms of human potential, spirituality, and ego development), and thus is naturally sensitive to how knowledge or beliefs about reality depend on characteristics of the believer. That-is, though its transdisciplinary scope it includes science and the scientific method, IT is not primarily designed to answer basic explanatory questions about the natural world, but is more

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[1] Papers are listed in the References section. Two papers in particular are companion or complementary to this one, one dealing with Embodied Realism and Critical Realism, and another with Mystical and Metaphysical claims in IT.

oriented to the meaning-generative goal of helping people make sense of (and better) the world. On the other hand, Integral Theory makes strong ontological commitments about being (including constructs such as Eros, the Nondual Ground of Being, and perspectives as primordial) and becoming (e.g. in the concepts of involution and tetra-emerging holons) that border on metaphysics, without much hedging around the epistemologically-imposed limitations of these claims.

Maintaining the tidiness of foundational categories and the meaning-generative power of grand teleological evolutionary narratives is important to the populist slant of Wilber's writings and the activist streak within the community, but this tidiness is difficult to maintain within the post-metaphysical framework that recent versions of Integral Theory embrace. In philosophical discourse definitive statements can easily lead to the pink elephants dodged in an extended argument, or the endless mazes of clarification and hedging that seem necessary to keep from contradicting oneself. For some the solution is the anti-foundationalists (or anti-essentialist) perspective that all claims about the essential or foundational elements or structures of reality are wrong-headed or meaningless, and should be avoided. Yet foundational claims, even if fallible, do have significant meaning-generative potential. In fact, those probing into the deepest philosophical questions can hardly avoid taking on foundational models, if only hypothetically.

In a post-post-modern (and post-metaphysical) milieu the philosophical projects of Ontology (making claims about being and/or nature) and Epistemology (understanding the nature and limits of knowing) are inextricably interwoven. Yet, even given contemporary sophisticated meta-theoretical approaches such at IT and CR, fundamental ontological questions about the nature of reality and fundamental epistemological questions about the relationship between reality and *ideas about* reality remain controversial and problematic. In this chapter I will explore recent philosophical themes related to the *embodiment* of reason, including Lakoff & Johnson's Embodied Realism and extensions to this theory that describe "epistemic drives." Embodied approaches can deepen meta-theoretical endeavors by adding nuance to their primary categories and methods of inquiry toward a more deeply "construct aware" approach to philosophy than is seen even within communities working on meta-theories. And importantly, embodied approaches allow for a layer of "immanent critique" that is self-reflective, appreciative, and self-emancipatory, allowing strong (meta) theoretical systems to account for more indeterminacy and unknowing (within the theories themselves, in addition to within phenomena they are applied to explain), and to be more portable, porous, and forgiving as they interface with other theories that present opposing assumptions.

Negotiations in the real vs. ideas

Contemporary meta-theoretical approaches, including Integral Theory, Critical Realism, the works of Habermas, Latour and many others, share the goal of skillfully combining the gifts of classical and positivistic philosophies with the caveats and unsettling disclosures that emerged in post-modern and deconstructivist philosophies.[2] The latter swung the epistemology-ontology pendulum far in the direction of discounting any validity in truth claims, and left a wake of solipsism and cynicism that undermines the natural human drives to know and to do good through valid knowledge. A conundrum being worked out by post-post-metaphysical approaches is how to make strong claims while remaining appropriately humble and acknowledging of a fallibilism that is compatible with the postmodern and constructivist critiques of knowing.

One can see three overarching steps or gestures in most contemporary approaches to the ontology-vs-epistemology conundrum. First is the weak realist claim that a reality exists outside of our knowing or perceiving of it (even if any particular claim about that reality is fallible).[3] This what Wilber is referring to by subsistence and is called "ontological intransitivity" by Bhaskar, who supports it with transcendental arguments.[4] That is, to deny that there is a reality is to engage in performative contradiction or absurdity. Antecedent to this first step, and supported by similar arguments, is the assumption (epistemologically speaking) or claim (ontologically speaking) that reality has stable forms of structure, regularity, and pattern (which, for example, allows for experiences of external reality that are more stable than dreams or imaginations).

The common second step is a constructivist move to fully acknowledge that there are epistemic limitations and fallibilities to all human knowledge (implied in Wilber's adages "the map is not the territory," "everyone is at least partially right" and in his Three Strands description of scientific inquiry, and corresponding to CR's "epistemic relativity"). The *third* step is meant to transcend and include the first two, and offers a middle path between ontology and epistemology: to claim that validity is graded such that some claims are stronger than others which implies that some claims more closely correspond with reality (related to what Habermas calls "the force of the better argument"). This corresponds with Wilber's "we can accept the valid truth claims...insofar as they make statements

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[2] The approaches also respond to the problems of Scientific Materialism, Logical Empiricism, and Positivism, which tend to marginalize non-concrete objects and non-rational modes of thought.

[3] Collier notes that "Heidegger…argues forcefully that non-realism is a non-starter, as it presupposes a worldless subject, and we are essential Being-in-the-world" (Collier, 1994, p. 30).

[4] The transcendental argument is that we always already make this assumption, or that this assumption is a necessary condition for the possibility of for either further (serious) philosophical deliberation, and/or a necessary condition for any reasoned action or communication. The later is more along the lines of Habermas, and see Murray 2015 for how transcendental arguments relate to Habermas' rational reconstructive arguments.

about the existence of their own enacted and disclosed phenomena" (Excerpt B) (and is called "judgmental

rationality" in CR).

These three steps are much more accepted in current scholarly circles than they were in the mid 20th

century when Wilber, Bhaskar, and Habermas were working out their original contributions, in full battle gear vs.

the excesses of postmodernism prominent in academia (and progressive culture) at the time (though by no means

disappeared). As a contemporary example, in *Philosophy in the Flesh* (PITF) Lakoff and Johnson describe

traditional "disembodied objective scientific realism" as containing three claims or assumptions (PITF, p. 90): (1)

There is a world independent of our understanding of it; (2) We can have stable [practical, trustable] knowledge of

it; and (3) Our concepts and forms of reason are *not* constrained by physicality, allowing science to discover

absolute truths. They take the first two as true, paralleling the above discussion, and see the last as problematic. The

second claim is the epistemological antecedent to the ontological claim of stable structures in reality. For example,

as Lakoff & Johnson put it, though all knowledge is fallible "we are not likely to discover that there are no such

things as cells or that NDA does not have a double-helix structure" (p. 89).

After these initial three moves the problem of exactly how to argue for strong validity or confidence in

specific truth claims is more problematic.[5] Following the three steps Integral Theory often moves quickly on to "so

let us find and use the best model we possibly can" (i.e. AQAL), and proceeds with a relatively positivist style.[6] But

the challenge of working out exactly how to argue that one truth claim is more valid than another, or that one entity

is more real than another, is only weakly met. The embodied philosophical approaches described in the chapter help

address those challenges.

Integral Theory faces several challenges from an ontological perspective. First is that does not contain a

rigorous analysis of its ontological assumptions, as claimed by Critical Realists (see Murray 2015 for more on this).

Second, IT relies heavily on definitive categories such as subject vs. object, singular vs. plural, and state vs. stage,

which are problematized in the light of embodied philosophical approaches. Third, it makes quasi-metaphysical

claims about cosmic essences and processes including Eros (as driving evolution), Ground of Being, and Involution.

Again embodied approaches imply a more fallible treatment of the reality of these constructs than IT offers.

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[5] A primary problem in the systematic comparison of truth claims (or models) is that the space of evaluation is not monotonic or linear. There are multiple characteristics that bear on quality (coverage, explanatory depth, parsimony, intuitive appeal, etc.), with no simple or generally agreed upon method for prioritizing or weighing them.
[6] Positivistic in the sense of "positive capability" vs. "negative capability" as described later.

Though contemporary philosophical systems acknowledge that there *are* inherent limitations to reason, most do little to specify specific structural limitations and inherent biases. Embodied approaches do just that, and in so doing they can increase the *negative capability* to cope with indeterminacy and increase the *positive capability* for self-critique, articulating limitations, and (partially) compensating for biases.[7]

Embodied approaches and sources of fallibility

One of the primary principles of post-modern philosophies is that there is no privileged perspective, no philosophically pure "view from nowhere," and that no truth claim should be taken as absolute. This generally leads postmodernists to avoid and critique claims even vaguely smacking of foundationalism or universality (which can lead to the performative contradictions inherent in extreme postmodernism). In contrast, while *post*-post-modern theories are constrained by this insight, they are not hamstrung by it. They allow themselves to propose theories containing essences, foundations, and universals, knowing they are fallible. I propose that most of the sources of this fallibility are results of embodiment.[8] Below I will summarize a number of these sources.

First, there are inherent limitations in perception (human vision, hearing, etc.; e.g. the neurological structures that lead to optical illusions) and measurement (calibration, accuracy, etc. in of tools used to measure or observe). Secondly, as the earliest philosophers were aware, and modern cognitive science has proven, emotion (desire, fear, preference, mood, etc.) highly influences reason and belief.[9] Third, since Freud it is understood that human thought and action are deeply influenced by un- or pre-conscious processes; that conscious thought is only the tip of the iceberg, and that one's personal history including childhood traumas have insidious effects on reason. Fourth, following from Darwin, we increasingly see that the human brain is lump of advanced mammalian wet-ware with idiosyncratic capacities created through random evolutionary processes. Reason is seen as a collection of evolved tools more than a unified pure capacity. Fifth, as articulated by Foucault and other postmodern and social constructivist thinkers, culture situates individuals within a host of invisible biases that are in large part determined

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[7] Positivistic approaches provide models, insights, and distinctions enabling more reasoning power, more meaning generation, and increased clarity and confidence; while approaches with more negative capability have a higher tolerance of and skill with the cognitive dissonance, fallibility, ignorance, mystery, and paradox, when inquiry exposes indeterminacies revealing ever deeper unsettling territories of unknowing and fallibility (see PME).

[8] Fallibility and bias can not be erased in general but, to speak metaphorically, the better one characterizes the coloring and distortion contributed by a lens (or any tool, especially the mind) the better one can compensate for the limitations that accompany it use. A popular quote attributed to Voltaire says: "Doubt is uncomfortable, certainty is ridiculous."

[9] Contemporary thinkers have put to rest the rationalist vs. empiricist debate over whether the senses or reason can yield valid knowledge—both are eminently fallible, and moreover perception and reason are too entwined to differentiate their reliability so strongly.

by structural power dynamics. Sixth, modern cognitive scientists including Kahneman and Tversky have researched a host of "cognitive biases" such as Loss Aversion and Confirmation Bias that underlie much of everyday thought.[10] Seventh, even in the rarified strata of mathematics, logic, and theoretical physics, theories such as Gödel's Incompleteness Theorem, Tarski's Undefinability Theorem, and Heisenberg's Uncertainty Principle demonstrate the limits to rational thinking and theorizing while quantum science and cosmology in various ways question whether reality can be known at all.

It seems that each generation reveals new sources of fallibility that further unseat knowledge from any privileged position. I mention these seven sources of the fallibility of reason only briefly and for completeness, as I move on to those more central to this chapter, which are most closely related to the cognitive biases category (#6 above). We will focus on sources of fallibility that I call "epistemic drives," including the indeterminacy of conceptual structures, that are most directly related to ontological claims about the nature of reality. While the scientific method and its extensions are meant to ameliorate some of the sources of fallibility above (as illustrated by Wilber's "strands" framework), epistemic drives have not been adequately explored or acknowledged, and thus even post-post-modern philosophical frameworks are susceptible to these sources of bias and overconfidence. The specific biases implied by epistemic drives are universal to human reason and might be said to strike more deeply and even more invisibly than those based on personal history, psychology, and socio-cultural conditioning. These sources of fallibility uncovered through cognitive science are thus less well expunged by the methods of "objective" and careful reasoning developed historically by scholars (scientists, philosophers, etc).

Lakoff and Johnson describe the *three major findings of cognitive science* this way (PITF, p. 3-4): (1) the mind is inherently embodied; (2) thought is mostly unconscious; and (3) abstract concepts are largely metaphorical. The first two points are elaborated upon by many others, while Lakoff and Johnson's main contribution is on the third point, which I will discuss in depth in the next section. Also, the first two items might be readily acknowledged by Wilber, while the third is more problematic for IT. Lakoff and Johnson go on to say that "More than two millennia of a priori philosophical speculation about these aspects of reason are over," and that because these "findings from the science of the mind are inconsistent with central parts of Western philosophy…philosophy can never be the same again" (p. 4). Lakoff and Johnson are telling us that the understanding of human reason that

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[10] On bounded rationality see: Kahneman et. al. 1982; Gigerenzer & Selten, 1999; Gladwell, 2002; Meyers 2002; Sunstein, 2002; Shermer, 2011b. For work specifically addressing the role of emotions in reason see: Goleman, 1995; Damasio, 1999; Matthews et al., 2002; Fischer et al., 1990. And on systematic errors of memory and perception see Travis & Aronson 2007; Wilson 2002.

underpinned traditional philosophy was deeply flawed, and thus so are many of its methods and conclusions. Here

are more of their claims (pp. 4-8).

- "Reason is not disembodied [but] arises form the nature of our brains, bodies, and bodily experience [such that] every structure of reason…comes from the details of our embodiment, [from] the same neural and cognitive mechanisms that allow us to perceive and move around."
- "Reason is evolutionary...[it builds upon forms present in] 'lower animals'…reason makes use of, rather than transcends, our animal nature."
- "Reason is not 'universal' in the transcendent sense; that is, it is not part of the structure of the universe. It is [however] a structure shared universally by all human beings."
- "Reason is not dispassionate, but emotionally engaged."[11]

Though these critiques of classical, modern, and post-modern philosophy will appeal to Integralists,

Embodied Realism contains a radical critique of reason based on the nature of concepts that has challenging

implications for IT. An important source of fallibility in truth claims is indeterminacy in the concepts (constructs) of

which they are composed. The claim that "all dogs bite" is indeterminate to the extent that the constructs "dog,"

"bite," and even "all" are poorly defined or not well definable (in general or within a particular dialogue). Embodied

Realism illustrates how the central concepts of philosophy are radically indeterminate and cannot be confidently said

to point to anything in reality. Integral Theory relies on strong categorical distinctions such as subject vs. object,

individual vs. collective; lines, levels, and types; and concepts such as Eros, Spirit, and the non-dual ground of

Being. Although ITs key constructs have strong meaning-generative potential, any particular claim made using these

constructs has sources of fallibility that are unexplored within IT. And in particular the way in which these

constructs can be confidently said to point to aspects of reality is further problematized, as we will see.

Embodied Realism: prototype theory, and metaphorical pluralism

Graded concepts and Prototype Theory. Conceptual categories split the world into parts while joining

parts into categories.[12] When we employ the knife of the concept important truths or nuance can get left on the

cutting room floor, so to speak, and troublesome grey areas can be ignored. The mind (or, we could say, the

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[11] Lakoff and Johnson go on to describe how the embodied perspective contradicts common philosophical positions: "there is no Cartesian dualistic person with a mind separate and independent from a body;" "since reason is shaped by the body, it is not radically free [and] we have no absolute freedom in Kant's sense…no full autonomy;" "the utilitarian [economically rational] person does not exist;" "phenomenological introspection alone [can not] discover everything there is to know about the mind;" and "there is no…decentered subjective…poststructuralist person…for whom all meaning is arbitrary, totally relative, and purely historically contingent, unconstrained by body and brain."
[12] With each split-and-join operation we risk making two types of errors: overgeneralization and overspecialization, i.e. treating things as similar that are in some important way different, and treating things as different that are in some important way similar (analogous to Type I and Type II errors from statistical analysis).

symbolic nature of language) has a tendency to treat conceptual boundaries as black-and-white.[13] As Bateson says: "[the] world begins by making splits, then drawing boundaries, then solidifying these boundaries. Then we fool ourselves into believing what we have made ourselves see. Solidifying boundaries is very comfortable, because it allows us to deny our experience…We miss the whole system" (1979). This "symbolic impulse" (my term) compels us to, for example in integral studies, to classify some phenomena as a state phenomena vs. a stage phenomena (or neither, but not both); or to classify a performance as being on the cognitive line or the ego line or some other specific line, when the phenomena in question may more accurately be said to exist between categories, outside of them, or in more than one category.

Lakoff and Johnson illustrate how real phenomena don't tend to exist in the neat categorical boxes that correspond to the constructs we create. Sophisticated modern thinkers *intellectually* know this about concepts—we know that things do not exist according to black and white categories—and our language often tries to compensate for the distortions introduced by this symbolic impulse (e.g. with qualifiers and hedges). However, the impulse and its consequences go deeper than most imagine.

Prototype Theory in cognitive science has revealed how the nature of concepts differs from what we normally assume about them (Mervis & Rosch, 1981; Lakoff, 1987). *All* concepts, not just poorly defined, culturally relevant, or complex ones, have "graded" or indeterminate boundaries (though some are more indeterminate than others). Some conceptual exemplars are more central than others (the most central are called "prototypes" of the concept). Conceptual categories universally admit to fuzzy boundaries as an outcome of how cognition works. The traditional logic-based notion of concepts from Aristotelian Logics, based on necessary and sufficient conditions, does not match well to actual human cognition. One can usually imagine things that exist in the gray area between being X and not-X, things that are sort-of X or more-or less X (or not X).[14] Exactly what exists at these boundaries will vary according to individual or group, but the indeterminacy itself is a universal cognitive phenomena.

Graded concept boundaries make universalizing claims of the form "all X's are Y" particularly fallible, because there will always be examples of things that are not exactly X but not exactly not-X either. It would be more correct to say "all X's are Y *to the extent that* instances of X and Y are prototypical of the categories as the speaker

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[13] In part such categorization is the mind's attempt to establish a comfortable condition of certainty, and avoid dissonance-producing states of uncertainty and ambiguity. Definitive categorizing enables definitive decision and action. In evolutionary terms, quick and certain categorization means catching the prey or avoiding the predator. Bio-evolutionary approaches to cognition, as in Kahneman's Thinking Fast Thinking Slow, are rarely applied to scholarly or philosophical thought, but can be.
[14] This is true for concepts indicated by words that have evolved naturally in language. We can of course define a new concept in a very specific way, and, until it undergoes the hermeneutic transformations in the "telephone game" of real use over time, it can maintain a strict definition.

intends them."[15] Disagreements about whether "all X's are Y" will often hinge on the fact that the objects offered up as exemplars may not be included in both party's meaning of X or Y. I will call the mutually exclusive, black and white, definitive, clear boundaried model of concepts the "simple" model, and graded, fuzzy-boundaried, prototype-centered, or otherwise complex models of concepts "indeterminate."

Abstract concepts. Lakoff and colleagues' research on conceptual structures indicates that the indeterminacy of concepts becomes progressively worse the more *abstract* they are, i.e. the further removed from concrete sensory experience and exemplars.[16] The concepts at the heart of integral studies, e.g. holon, perspective, subjectivity, spirit, omega point, collective consciousness, and non-duality, are abstract and wildly indeterminate. This of course is not a problem for integral theory alone, as a substantial segment of philosophical text labors to work out the hermeneutic issues of what others mean by their terms.

For example, Steven Wagner notes: "Everyone knows Poincare insisted, against Russell, that logic depends on psychology, which makes him a 'psychologist about logic'. What Poincare actually meant by 'logic' or 'psychology' and what drove his insistence are far less clear." (Wagner 2001, p 35). Among philosophers who disagree on whether "knowledge is justified true belief"—do they agree on the definitions of these five terms? What did Heidegger mean by being? Plato by form? Freud by ego? Kant by things-in-themselves? These questions are highly contentious within philosophical discourse.[17] In all disciplines scholars bemoan, in their introductory paragraphs, that one of the problems needing to be addressed in their field is insufficient agreement or excessive ambiguity about the meaning of the key terms of the field.[18] Particularly in the "soft" sciences and humanities, though understanding surely evolves, this problem never seems to go away. Many authors do not seem to acknowledge what Embodied Realism shows: that indeterminacy is, to some degree, natural and unavoidable, and a great deal of the indeterminacy must be "coped with" rather than solved or debated.

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[15] Lakoff and Johnson describe *graded propositions* that "...contain linear scales [that] define the degree to which a given property holds of an individual [as] defined by a graded category..." (pg. 288).

[16] Similarly, Chris Argyris says "the likelihood of differences in the interpretations of different observers increases the higher one goes on the ladder of inference" (1995, p 58). Rungs along this "ladder" are inferential steps that can represent increases in abstraction, complexity, or just a sequence of inferences—any of which lead one ever further from concrete facts. Esbjörn-Hargens (2010) uses the term "epistemological distance" (from Carolan, 2004) to describe differences along this ladder of inference that, to my reading, map to hierarchical complexity, which is essentially a combination of complexity and abstraction (Commons & Richards, 1984).

[17] It is still true that, as Descartes said four centuries ago, that "[philosophy] had been cultivated for many centuries by the best minds that have ever lived and that nevertheless no single thing is to be found in it which is not a subject of dispute and in consequence is not dubious" (Descartes, 1637, p. 10). Descartes actually thought he had discovered a solution, and did not count himself among the plagued philosophers. Post-metaphysical philosophy, which foregrounds knowledge fallibility, better avoids such blind spots.

[18] Many areas of scholarly work are, as Michael Shermer puts it, "notoriously fraught with definitional disagreement" (Shermer, 2011a).

The graded nature of abstract concepts sheds light on many philosophical conundrums. Scholarly inquiries into cognition vs. affect; or mind vs. body, are often hindered by the under-acknowledged fact that phenomena fall within the gray (graded) area between core constructs. The same issues arise for facts vs. values; a-prior vs. a-posteriori, and many other constructs debated in philosophy. In psychology one will see debates about long term memory, short term memory, and working memory that ignore the fact that these are somewhat arbitrary categorical delineations for what is really a graded spectrum of memory functionality.[19] Is the universe made of matter/energy or more mind-like stuff such as consciousness, spirit, or information? What Embodied Realism implies is that we don't have to choose—and that we can never fully know. Embodied human comprehension is a feeble tool for understanding things that have a nature and structure far from what our underlying sensorimotor metaphors can describe. Just as physicists have had to live with the particle-and-wave nature of matter/energy without having to choose, philosophers can acknowledge that, for example, the underpinnings of reality are matter-like in some ways and mind-like in other ways, and move forward working out the details of each perspective, in the humility that reason's deep fallibility requires. New models might integrate such differences and polarities, but this does not diminish the limits imposed by the embodiment of thought.

Metaphorical pluralism. The reader is likely to be familiar with the notion that much of language and thought is metaphorical. Lakoff and Johnson argue that thought and reason are *primarily* and *fundamentally* metaphorical, and that the metaphors we employ are grounded in our embodiment—that abstract thought is composed of conceptual building blocks at the sensory-motor level.

Of course, there are an infinite number of variations built up from any set of primitive building blocks—so thought is limited in one sense and unlimited in another. The key point for us is the (perhaps exaggerated) conclusion that if it can't be built up from basic sensory-motor primitives, *we can't think it*. Our embodied experience determines the limited conceptual pallet that we have at our disposal with which to paint all of our ideas (a pallet determined both by the genetically established structure of the brain and the embodied experiences of early childhood mental development).

Developmental theory (Piaget, 1972; Fischer 1980; Commons 1984; Kegan, 1994) shows us how mental constructs are built up from lower level constructs, in response to (in interaction with) events and pressures from our environment. As far as we know, people cannot directly transmit ideas or concepts mind-to-mind. Concepts and

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[19] We should differentiate between two types of problems: first that definitive concepts mismatch graded phenomena in *nature*; and second that we treat concepts as definitive when in fact they operate within *cognition* as graded.

ideas come from (one's own) prior concepts and ideas, and from sensory-motor experiences (including verbal and textual communication)—they have nowhere else to come from (as far as we can tell). Even if one assumes that we have direct access to intuitive or creative knowledge outside the self, to be expressed the pre-verbal knowing must be translated into symbolic language and thus into metaphorically-bound concepts.

Lakoff and Johnson show how all abstract ideas "such as importance, similarity, difficulty, and morality" and our abstract understanding of subjective experiences such as "desire, affection, intimacy, and achievement" are based on concrete metaphors (p. 45). "As rich as these experiences are, much of the way we conceptualize them, reason about them, and visualize them come from [concrete, mostly sensory-motor] domains of experience" (ibid). For example, our understanding of friendship or intimacy is not simply *related* to experiences and concepts of closeness, warmth, smiling, touch, and satisfying conversation, in a sense it *is* the combination of such things and nothing more. One can think of the abstract concept as the node in a semantic network that has no content in itself, but serves as the connection point pulling together other nodes (which, according to Lakoff and Johnson, bottom out in concrete experiential categories).

This connection between abstract thought and concrete experience is at the center of Lakoff and Johnsons Primary Theory Of Metaphor. In their theory "metaphor is *not* the result of...interpretation [it is] a matter of immediate conceptual mapping via neural connections" (emphasis in original; p. 57). (Non-abstract or literal ideas need not be metaphorical; grasping a hammer is literal, while grasping an idea is metaphorical.)

Lakoff and Johnson map out the sensory-motor roots of abstract concepts. I list some below. The first concept in each list is abstract and the second is concrete. I have highlighted those abstract concepts that are particularly important in philosophy and theory-making:

> Importance as bigness; happy as up; bad as stinky; *knowing* or *understanding* as seeing or grasping; difficulties as heavy burdens; more as up; *similarity* as closeness; *organization* as physical structure; time as motion; *change or transformation* as motion; *states* as locations; *purpose* as destinations or desired objects; *causes* as physical forces; *relationships* as enclosures (PITF, p. 50-54).

The metaphorical connections between abstract ideas and concrete metaphors are not always simple or obvious. Primary metaphors are combined in complex ways. For example, Lakoff and Johnson examine the "life as a journey" metaphor and uncover a wealth of depth and breadth.[20] Another example is importance, which is metaphorically associated with bigness but also with other sensory-motor metaphors.

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[20] For claims about instances whose categories follow a *graded or prototype* structure the claim is true to the extent that the instance fits the prototype or central meaning. But for concepts with more *metaphorical pluralism* the situation is even more

Lakoff and Johnson's *Philosophy in the Flesh* is not only about the pervasive role of metaphor in reason and language (their prior books *Women, fire, and dangerous things, Lakoff 1987*; and *Metaphors we live by*, Lakoff and Johnson 1980, covered that territory). They have bigger fish to fry. They are out to show how the most prestigious of all ideas and theories, philosophical and scientific ones, which are also among the most abstract ideas and theories, are on dubious ground—they point not so much to eternal truths but back to concrete embodied experience. "Our most fundamental concepts—time, events, causation, the mind, the self, and morality—are multiply metaphorical" (or metaphorically pluralistic, p. 128). Metaphysical philosophical arguments seem to be telling us more about how the mind works than about how the universe works.[21]

Metaphorical Pluralism: the ontology of time and causality. We can now relate these ideas to ontological questions in philosophy. Lakoff and Johnson show that many abstract concepts are understood in terms of a "metaphorical patchwork, sometimes conceptualized by one metaphor, and at other times by another." For example, consider our concept of time, which is based on a patchwork conglomerate of more fundamental experiences and schema, mostly involving space and motion (from PITF Chapter 10). The future is in *front* of us and the past *behind* us. We *face* the future. Time *passes* by or the time has *arrived*. Time durations can be *large* or *small*. One date is *close* to another. Events occur *at* times or *in* time. Also mentioned the "time as a resource" metaphor—we can waste time, steal time, budget our time, etc.[22]

These metaphors "structure not only the way we conceptualize the relationship between events and time but the very way we experience time" (p. 153). "We have found that we cannot think (much less talk) about time without those metaphors" (p 166). Thus "the metaphorical conceptualization of time is constitutive, at least in significant part, of our concept of time"(p. 166). That is, the metaphors are not just *an aspect* of our understanding of time, together they *are* our understanding of time.[23]

Lakoff and Johnson go on to "consider the classical ontological question: *Does time exist independent of minds*, and if so, what are its properties? [We] reject the question. It is a loaded question" (p. 167). Answers to the

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fraught with indeterminacy because the structure of the category may be more like distant islands of prototypes with no central meaning.

[21] Lakoff and Johnson may make metaphorical pluralism sound like a more revolutionary idea than it is, especially to philosophers. It is the multi-perspectival nature of the metaphorical pluralism of core concepts that enables scholars over the ages to write entire books exploring a single constructs such as cosmopolitanism, hope, patriotism, being, selfishness, pluralism, bullshit, or insecurity (this random list from looking at the books on my shelf). That cognitive science supports the inescapability of metaphorical pluralism is, however, new in our era.

[22] These metaphorical explorations are for English language speakers, but the authors give interesting examples of alternative conceptualizations from other languages and cultures.

[23] Or most of it, as Lakoff and Johnson mention, there are some non-metaphorical, i.e. *literal,* aspects of time such as its directionality and irreversibility.

question are meaningless or not useful. "Yet the biological and cognitive construction of time does not make it subjective or arbitrary or merely cultural...the metaphors are not arbitrary; they are deeply motivated. They permit the measurement of time, our very notion of history, the science of physics, and much more" (p. 168). The metaphors are "apt" and extremely useful, but "being metaphors, can get us into silliness if we take them literally" (ibid). And, reading Lakoff and Johnson, there seems to be much of such silliness in traditional philosophy.

Importantly, the metaphors that underlie a particular concept can be incompatible or contradictory, and yet we unreflectively jump from one metaphorical basis to another. For example, on the nature of *causality* Lakoff and Johnson's analysis shows that "over the course of history, philosophers have formulated a wide variety of theories of causation, each substantively different from the others and therefore each with its own distinct logic" (p. 173). Are they talking about the same thing? "Philosophers may disagree as to what is the *right* theory of causation, but the philosophical community recognizes all of them as theories of the same thing. Why should philosophers have come up with this particular range of theories of causation?" (ibid). We will never answer this question if we only keep looking "out there" to the external world of physics for the real answer. The answer comes only when we investigate the cognitive aspects of the concept itself.

Lakoff and Johnson show how our conceptualization of the abstract concept of causation is based upon a plurality of metaphors, not all of them compatible with each other, that are brought in and used unawares as philosophers base their theories on different metaphorical bases of the concept, and thus come to different conclusions.[24] Like the concepts of chair and game (try to define them!), the concept of *causation* is understood in terms of a loose collection of features and exemplars having a fuzzy "family resemblance" or "multivalent radial structure" but having no precise definition, specific nature or essence beyond human thought. Though having diverse facets, these concepts have an undeniable unity. The various senses of the word have enough overlap of use and understanding that the mishmash holds together as a single conceptual gestalt for us.

At this point it is worth reminding the reader who may feel as though Embodied Realism is veering into idealism in terms of denial of reality, or solipsism/nihilism in terms of denial of valid knowledge. Embodied Realism is a weak realism. Our efforts to understand causality (or time) *are* pointing to some actual phenomena, and may (in Bhaskar's terms) be describing pointing toward actual underlying mechanisms. But Embodied Realism says

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[24] They also make the argument (p. 198) that for incompatible metaphorical senses of a concept, we have to (usually unconsciously) choose between them and can't conceive of the concept in a way that includes both. They make an analogy to perceiving figure vs. ground.

that we can not presume that our attempts to understand reality produce simple or fully accurate mappings between ideas and reality.

"Does free will exist?" and other victims of Metaphorical Pluralism. Lakoff and Johnson continue with an in-depth analysis of *mind* and *self* (constructs more central to integral theories than time and causality), and find a similar type of metaphorical pluralism. Along the way they illustrate metaphorical pluralisms in the concepts of thing, object, truth, law, and reality. Above we noted that because all such abstract concepts are graded, metaphorical pluralisms, and/or otherwise indeterminate, that any claims containing them are likewise fallible.

Many classic philosophical and academic debates loose much of their steam in the light of Embodied Realism. Do slugs have *emotions*? Are dolphins *intelligent*? Are computers intelligent (could they become so)? Do apes use *language*? Are rocks or trees or atoms *conscious*? Do humans have *free will*? Do we have a *soul*? Heated arguments ensue without a thorough investigation into how each party's interpretation of abstract concepts may differ. Slugs, dolphins, apes, computers, rocks, atoms and people do what they are *observed* to do, and scientists can propose deeper *mechanisms* that predict or explain phenomena. But the *categorical* types of questions are uninteresting in the light of Embodied Realism. Humans have free will in a sense and they don't in another sense (arguments on both sides are no doubt familiar to the reader). Dolphins are intelligent depending on the central exemplars and metaphors that are built into one's meaning of intelligent (this does not mean that it is useless to study dolphin intelligence). Is moral development justice-based, as Kohlberg found, or care-base, as Gilliam found? Both types of phenomena are observed and there are important questions of how/when/why/who to be investigated, but whether moral development "*is" [something]* is not among them.[25]

Ontological questions about existence. We can focus this exploration of the fallibility of statements specifically on ontological claims about existence, foundations, universals, and essence. Disconcertingly, based on Embodied Realism causation, free will, life, intelligence, evolution, mind, the self, and morality cannot be said to exist independent of human ideation. They are names that we give to patterns (arguably real patterns involving real phenomena, and certainly important to study). "Does [X] exist (or subsist, or have being)? If so what are its essential properties?" With Lakoff and Johnson we can "reject the question."

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[25] Even the verb "to be" is a metaphorical pluralism. It can imply identity, class membership, existence, or predication. (President Clinton famously and disastrously said as he was trying to deceive his interrogators: "It depends on what the meaning of the word 'is' is..") Alfred Korzybski describes E-Prime, "a version of the English language that excludes all forms of the verb to be" as a "…a device to clarify thinking and strengthen writing [that] leads to a less dogmatic style of language that reduces the possibility of misunderstanding and conflict…For example, the sentence 'the film was good' could translate into E-Prime as 'I liked the film' or as 'the film made me laugh.' The E-Prime versions communicate the speaker's experience rather than judgment, making it harder for the writer or reader to confuse opinion with fact" (Wikipedia August 20, 2011).

Even the constructs of real/reality/exist and truth are shown to be problematic metaphorical pluralisms in PITF. In the last century philosophers have worked out that each of these things are "real" in different ways: concrete individual objects (the dog); classes and abstractions over concrete objects (e.g. dogs, mammals); properties such as red or bigness;[26] processes and gerunds (e.g. reproduction, running); so-called social constructs such as money and gender (see Searle, 1995); and natural laws and causal mechanisms such as gravitation and evolution (see Elster 1999, Bhaskar, 1975). Yet many still hold onto the notion that "reality" can point to a single totalizing referent. To ask *whether* of each of these things is real is uninteresting, but articulating *in what sense* each is real is useful.

Lakoff and Johnson make the radical claim that "the question of what we take truth to be is therefore a matter for cognitive science because it depends on the nature of human understanding....Truth is, for this reason, not something subject to definition by an a-priori philosophy" (PITF 1999, p. 108).[27]

Epistemic drives

Ontology and Epistemology must interweave in a dance. At some point, any claim about reality must be open to epistemological critiques about its validity, and, as noted in Embodied Realism, all such claims are inherently fallible. Yet, pragmatically and performativity, one must get on with the job of making meaning of reality as best one can, and bracket or put aside investigations or admissions of fallibility and speak with confidence without constantly hedging in the bulk of discourse. As Bhaskar and others point out, ontological (and perhaps even metaphysical) assumptions exist within all discourses, and usually go unexamined. We often speak as if we refer to objects in the real world, and this is not only pragmatically necessary but inherently necessary. What Embodied Realism does is not so much critique or expose any particular ontological claim as it critiques the levels of *certainty* and confidence, and the methods of *argument*, employed in philosophical discourse. Critical Realism and Pragmatism give us the permission to make ontological claims, but they do not alleviate the underlying fallibilities.

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[26] Lakoff & Johnson, in Chapter 3, explain that "color does not exist in the external world...light is not colored...it is electromagnetic radiation" and the relationship between perceived color and the combination of color frequencies hitting the eye is not a simple mapping of the rainbow spectrum of frequencies.
[27] This notion is backed up in a strictly philosophical sense, rather than from cognitive psychology, in Kirkham's (1992) *Theories of Truth, A Critical Introduction*. Kirkham shows that there are a multitude of definitions of truth implied in philosophy and logic. He claims that philosophical disagreements and confusions about the nature of truth are often the result of scholars being unaware that each is talking about different things (both called truth) or that a single author implies different definitions of truth in different places. He classifies the implicit definitions of truth into categories including extensional, possible worlds, metaphysical, naturalistic, essential, justificatory, assertional and ascriptional.

The embodied approach allows one to moves from simply exposing fallibilities to deeper questions about whether a given source of fallibility significantly impairs a given claim.

In what follows I broaden the discussion of fallibilities from those based specifically on Lakoff and Johnson's Embodied Realism to include other "epistemic drives." The discussion will be more speculative and superficial, but no less important. While Lakoff and Johnson's claims from Embodied Realism are based in empirical studies in cognitive science, my description of epistemic drives is meant as a rough sketch of a useful concept, awaiting more thorough treatment.[28] Epistemic drive is an umbrella term I use for any tendencies of thought that influence what is perceived as real or true. Epistemic drives are analogous to biologically innate "emotional" drives such as the drive to reproduce, the fight/flight/freeze responses, territoriality, maternal/paternal care, and social dominance/submissiveness drives, but would seem to involve higher brain centers. The term epistemic drive substantially overlaps with other classifications of cognitive phenomena, such as cognitive biases and heuristics (see references to Kahneman and others above), but frames such cognitive phenomena in terms of phenomenological and motivational considerations. The usual treatment of cognitive biases emphasizes the *results* of fallible cognition and the shape of systematic distortions. My discussion of epistemic drives will emphasizes the *impulse* or motivation that draws us into enacting these distortions.

A plethora of drives or hard-wired urges exist within humans, mostly dormant until conditions trigger them, and often operating in competition (will I fight or run? Eat, work, or play?). Like other drives, epistemic drives are unconscious processes that, on the one hand, can have unseen control over us, and on the other hand, can be managed or controlled to some degree through learned metacognitive (or meta-emotional) skills.

I found it striking that Lakoff and Johnson's 624 page tome on embodied philosophy barely mentions the influence of *emotions* and basic human drives on cognition.[29] Lakoff and Johnson seem to focus on sensorimotor experience as the basis of their theory of metaphoric thought, but leave out a critical aspect of early pre-linguistic experience—emotional experience and other non-sensorimotor experiences—that are just as available for the foundation of metaphorical building blocks of later abstract thought. The feelings of anger, disappointment, longing, or even more physiological states like nausea and itching can also be the origins of primary metaphors.

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[28] There seem to be threads in the literature from psychology and brain science that would or could support and expound upon epistemic drives, but such research is still emerging.

[29] It was also surprising that no mention was made of developmental theories. This is one indication among many of the surprising marginalization or ignorance of developmental theories in academia. Though developmental theory has deep implications for all of the social sciences, even in closely related branches such as cognitive science, developmental theory is unused except for passing references to Piaget's work with young children, missing the critical contributions of Neo-Piagetian theories relevant to adults.

I use the term "symbolic impulse" to implicate the tendency, which is akin to a drive or compulsion. The symbolic impulse is a tendency of thought that biases one to perceive or interpret concepts as having mutually exclusive, black and white, definitive, clear boundaried (i.e. as "simple" as opposed to indeterminate). In calling it a drive, diverging from Lakoff, I imply that it is a tendency that can be observed (reflectively experienced), examined, and at least partially compensated for. I also imply that its impact varies and that certain conditions exacerbate it (as with more commonly noted human drives). Also, as with other impulses and drives, once can observe that conditions of stress or complexity can compromise one's efforts to manage or gain perspective on the symbolic impulse.

A related epistemic drive is the desire, need, or compulsion for certainty (and the avoidance of dissonance-incurring uncertainty, doubt, or unknowing).[30] In Murray [2011, Table 2] I list about a dozen epistemic drives, including drives toward oneness, completeness, purity, simplicity, wholeness, generality, and abstraction. They serve positive functions but can also over-function to create the "violence and folly" of biases, errors; and can cause ethical problems, leading, at the extreme, to phenomena such as grandiosity, hegemony, elitism, delusions of reference, and proto-fascism.[31] We can imagine that such drives contribute to the degree of certainty, foundationalism, essentialism, and universalism witnessed in the theories of various philosophers. However, the main goal here is the self-emancipatory power of considering the impact of epistemic drives on the theories that one creates or uses.

Like the more basic biological drives, epistemic drives exist within an ecology of psychological and cognitive forces—interacting and often competing. For any drive to not over-function it needs one or more balancing drives. In Murray [2011, Table 2] I suggest that each epistemic drive has a polar opposite. For example, there is a drive to notice differences as well as one to perceive wholes; a drive toward diving into the concrete as well as one for leaping into the abstract.

An important epistemic drive, related to both conceptual gradedness and the metaphorical nature is "misplaced concreteness" (coined by Whitehead, 1929). Misplaced concreteness is the tendency to imbue abstract concepts with the properties of concrete objects (e.g. to give them definitive boundaries). It is at the core of fallacies of the "myth of the given" and "confusing the map for the territory"—which are often mentioned by Wilber. In

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[30] The very general urge to find understanding or meaning in our experience is an epistemic drive that includes many others. Many of the drives I will mention are overlapping—I am not proposing any clear taxonomy of them here.
[31] Maeve Cooke notes the potential of "repressive metaphysical projections" in language and (hyper-) rationality (1994, p. ix; in framing Habermas' post-metaphysics).

Murray (2011) I discuss how misplaced concreteness manifests differently at different levels of abstract thought (or different developmental levels of reflective abstraction). Though philosophers and intellectuals may not be prone to its more primitive manifestations, as we can see from Lakoff and Johnson's arguments, intellectuals are not immune from the influence of certain forms of misplaced concreteness.

One property of drives is that one can experience their pull if one observes closely. In this section I focus on the drives that seem to most afflict intellectual, philosophical, or ontological threads of human activity. One can become aware of that in the human mind which wants to pull the disparate, the many, the diverse into a unifying whole; achieve the simplicity and power of a general concept or rule; to determine and rest in what is at the center of, or underneath things. One can identify these drives or urges working within us at the level of felt experience. There is a sense of ease, certainty, and mastery when one ignores details and differences and trust a sturdy generality. There is a sense of elegance and wholeness when one embraces many things into a circle of unity. One gets a certain satisfaction from ordering things or collecting them into tidy groups. The inquisitive and meaning-hungry mind wants to know the causal root, foundation, source, or origin of things. With many philosophical frameworks available to the modern thinker, one must ask how such factors influence how particular ideas are spread, which ideas one finds convincing, and which ideas one espouses and builds upon. Though the existence of epistemic drives can not disprove ideas, they offer a critique of many forms of performative confidence and persuasion.

Implications of ER for integral theories and practices

Ontology addresses the essential nature, structure, or properties of reality and also addresses the simple reality, existence, or being of things, i.e. the "ontological status" of fundamental concepts. Ontological status determines what can be considered *real* vs. epiphenomenal, merely subjective, illusory, or fallacious.[32] Embodied Realism shows that the concepts of real/existence/being are both fuzzy and metaphorically pluralistic. This supports approaches that nuance the issue by describing *ways* that things can be real rather than defining *whether* something is real. Embodied Realism reveals and explains sources of fallibility in claims and indeterminacy in concepts, but

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[32] Simply *naming* something can confer an ontological status. The "ontological legislation" of giving things names, and thus tendering more reality to the objects they denote, whether it happens culturally (organically, bottom up), or through the power structures of institutions (top down sanctioning), partitions the buzzing booming chaos of reality into things of importance, those of lesser importance, and that which can barely be considered or known to exist because they have not been named. Cultures that have no name for the "ecosystem" may have difficulty considering its health. The differentiations (and integrations) provided by ontologies-in-use constrain the set of choices one has in dialogue, action, and thought.

provides only a few tools for dealing or coping with these phenomena. IT contributes to these themes by introducing models and distinctions that nuance the questions of what it means to "exist" and what it means to "know." I describe these contributions next. (CR makes additional, compatible distinctions, see Murray, 2015.)

Integral Pluralism and Kosmic Address. The Integral Post-metaphysics of Wilber and Esbjörn-Hargens involves reframing the overly simplistic question of *whether* something exists (i.e. is real) to ask *how* it exists *for whom?* Integral Pluralism (one aspect of Integral Post-metaphysics) says that what is perceived to exist depends on the methodology used to inquire and the developmentally-determined capacity of the observer/inquirer to perceive (Wilber 2006; Esbjörn-Hargens, 2010; Esbjörn-Hargens and Zimmerman 2009; Wilber, in preparation). It proposes a specific framework for classifying methodologies (using eight "Primordial Perspectives" or "methodological zones") and developmental capacity (Wilber's Levels of Consciousness stage model). The move from "whether" something exists to "how and for whom" something exists enables one to loosen a number the ontological knots mentioned above.

For example, Santa Claus can be said to "exist," to be real, for those within a circle of 5 year old believers having a conversation about him. "What kind of cookies does Santa Clause like best?" is a valid question in such a circle.[33] Esbjörn-Hargens and Zimmerman give the example of "ecosystem," which can exist, and claims about one can be made, only for those who have an adequate understanding of the concept, which in itself requires the capacity to think at a certain level of complexity. Integral Pluralism also stresses the importance of methodology. What one perceives, and thus considers real, depends in part on the methods and equipment one uses to observe (objects are thus said to be "enacted").

Wilber and Esbjörn-Hargens' Integral Post-metaphysics is one among a number of recent theories that see objects and phenomena in reality as *enacted*. Esbjörn-Hargens says "the ontological status of [a soda] bottle is enacted in part by the method of interacting with it…The reality of the bottle as instrument, vase, or cash refund is not dependent on your viewpoint but rather on the social practice of interacting with the bottle" (2010, p. 13). Integral Pluralism proposes that many objects of deliberation are "decentered multiple objects" that exhibit an "ontological pluralism" (Esbjörn-Hargens 2010). That is, when interlocutors (experts or citizens) talk about a complex object such as "climate change," they are often referring to different aspects of the totality of what is related to climate change. So far this is similar to Embodied Realism's idea of Metaphorical Pluralism, but from here

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[33] Santa Clause can also exist for *us* if we take the magical-thought perspective of that developmental level, which remains ever-available within our consciousness (some would call it suspension of disbelief).

Integral Pluralism takes a different tack. It proposes that the perspectives that give rise to different perceived "objects" can be located with a "Kosmic Address" that includes the methodological zones of Integral Methodological Pluralism and the developmental levels of consciousness of Integral Epistemological Pluralism. Ontological Pluralism says that observers will enact different objects if they are using, for example, phenomenological vs. empirical modes of inquiry; or are perceiving reality from a conventional vs. post-conventional developmental level.

AQAL categories. The core orienting model in Integral Theory is the AQAL model (or metatheory). It proposes "five irreducible categories of…manifest existence": quadrants, levels, lines, states, and types. There are said to be "the five most basic elements that need to be included in any truly integral or comprehensive approach..." to understand the cosmos as a whole or any aspect of it (Wilber, 2006, p. 31). AQAL includes not only these five dimensions as distinct categories but within each category Wilber defines a classification of elements—the four quadrants (8 zones), 4-6 states, 3-17 stages, 3-12 lines, etc.

In the Murray (2011) section "An indeterminacy analysis of some Integral Theory constructs," I explore the implications of the fact that the foundational categories of Wilber's four quadrant model, "subjective vs. objective" and "singular vs. plural," are graded concepts exhibiting metaphorical pluralism. To quote: "For example, unconscious mental processes are not exactly subjective, but are they objective? It seems to me that the category fails to be useful here…As to the category singular vs. plural, we can find or imagine things that are sort of singular but also sort of plural…We can also apply indeterminacy analysis to the… concept of holon…some objects of interest may fall into a gray area between heaps and holons, or between holons and artifacts…" (p. 106). (The same arguments can be made of the eight Zones of Integral Methodological Pluralism.)

In "Integralist Mental Models of Adult Development: Provisos from a Users Guide" (Murray, to be published), I explore the indeterminacies in the constructs central to AQAL's theory of development: the Lines and Levels of the AQAL psychograph, and the concept of developmental tiers. I show how certain commonly held beliefs about development within the integral community are more fallible than is assumed because of the graded nature of and metaphorical pluralism of the core constructs.

The question of whether boundary objects are common or rare, important or irrelevant, is a *pragmatic* question—the ontological issue remains: that proponents of IT often treat such categories as (1) mutually exclusive, (2) having no fuzzy boundaries, and (3) properties of reality that valid inferences must abide by. And of course, if

one habitually looks at the world through the lens of such a model, then boundary objects will automatically appear rare and irrelevant. Wilber does employ various epistemic forms (as implied in "tetra-enact") to indicate that the concepts and models he uses do not have a simple categorical form. Wilber uses multiple metaphors for key concepts: developmental levels are also referred to as stages, ladders, spirals, concentric circles, waves, etc. Developmental lines are sometimes referred to as streams.[34]

These uses of metaphor notwithstanding, it can be noted that (1) in the majority of Wilber's writing and dialogue, he uses the categories without such qualification; and (2) when he notes the non-simplicity of the constructs, he is claiming that this non-simplicity (intermeshing, etc.) represents nature, which, though it may be true, is not the same as noting the indeterminacies and fallibilities of the concepts themselves.[35]

Though Wilber clearly notes that his system is an evolving one open to improvement, the confidence and directness of his rhetoric and the steadfast adherence of many of his colleagues to the model *implies* that AQAL contains deep and stable truths about external reality. Though much of Wilber's writings, and especially recent "Wilber-5" texts (most associated with post-metaphysics) and the work of his most prominent academic colleagues, are more based on principles and methodologies, and are thus less susceptible to the problems of indeterminacy, the AQAL model is still the foundation of Integral Theory as it is presented to the masses. The model seems designed to be understandable in terms of simple categories, taxonomies, and charts that appeal to more linear and less complex "epistemic forms," though a deeper reading of Integral Theory invokes higher stage forms such as ecologies, fractals, and co-referential dialecticals. The rub is, that if the model did not contain these easily digestible categories then it surely would not be so popular, and fewer would benefit from what IT has to offer.

The related concepts of "The True, the Good, and the Beautiful," often referenced in the Integral Theory, are similarly problematic. Associated with the I, We, and It primordial perspectives, they are given a foundational ontological status. But the True, the Good, and the Beautiful are metaphorical pluralisms that turn out to be difficult to pin down, and their meanings are contentious among philosophers.[36]

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[34] Metaphorical Pluralism and Ontological Pluralism implies that when Wilber uses ladders vs. spirals to refer to developmental levels, he may actually be referring to a slightly different (multiple) object.
[35] Critiques of Integral Theory suggest that in countering post-modern theories Integral Theory has overshot and has not fully incorporated the lessons of post-modernism, as suggested by the sub-title of Gary Hampson's paper "The [only] way out [of postmodernism] is through [it]" (Hampson, 2007). See also Mark Edwards (2010, p. 409): "an integral metastudies needs a decentering postmodernism that it cannot integrate, that lies outside of its scientific purview, which continually challenges it and is critical of its generalisations, abstractions and universalisings."
[36] Habermas uses a parallel conceptualization of subjective, objective, and intersubjective (which Wilber cites as an influence). But Habermas is not interested in whether these are primordial aspects of nature—he describes them in terms of enacted *human* interests, perspectives, and innate orientations.

Primordial perspectives. The quadrant model and related and eight "primordial perspectives" or zones ground Integral Theory's treatment of *perspectives*. In *Integral Spirituality* Wilber says: "all objects are first and foremost perspectives. NOT 'are seen from perspectives,' but ARE perspectives…there is no 'apart from' how a thing appears…'things' do not exist in a pregiven world…" (p. 252). There are several assumptions or implications here. The idea that our mental apparatus constructs our perception of objects and even their appearance *as* objects, is generally accepted. But this quote leaves open the question of whether *perspectives* exist in a pregiven world (and whether they might reasonably be considered "things"—which would lead to a contradiction in the quote). One of Wilber's primary students and colleagues, Clint Fuchs, says that "Put as simply as possible: perspectives are primordial, which is to say they are the most fundamental or primeval elements of reality, existing at or from the beginning of time" (2010, p. 1). On the other hand, in the same paragraph, he says "It is through perspectives and perspectives alone that we come to understand anything about our world."

Are perspectives then things that humans have/use, or are they fundamental components of the world?[37] Wilber's claim that "there is no 'apart from' how a thing appears" as well as the "enactive" interpretation of reality from Integral Pluralism, verges on a non-realist (constructivist) position that a world "out there" does not exist. These types of statements lead critical realists to claim that IT falls prey to the epistemic fallacy: "'the view that statements about being can be reduced to or analyzed in terms of statements about knowledge" (Bhaskar 1975, p. 36; and see Collier pp. 76-84). However, in general IT has a more nuanced stance.

From the perspective of Embodied Realism, these sorts of conundrums are natural and even unavoidable. Perspective, reality, object, thing, and even "are" are metaphorical pluralisms that must be coped with rather than hammered down. Claims about these constructs are not so much true (or false) as true *to the extent that* the exemplars considered in any actual situation are prototypical to the commonly accepted prototypes of the core categories. However, Wilber's positivistic style does not include caveats of the type offered by Embodied Realism, and thus he is forced to interleave explanations that may seem contradictory.

Kosmic Address. Integral Pluralism highlights how different objects arise from the different defined perspectives of the Kosmic Address model. It thus offers developmental and ontological categories that are very

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[37] In Wilber (Excerpt A, online) he again seems contradictory regarding whether perspectives are inherent in the universe or aspects of human cognition: "These four perspectives are not merely arbitrary conventions. Rather, they are dimensions that are so fundamental that they have become embedded in language as pronouns during the natural course of evolution. These embedded perspectives show up as first, second, and third person pronouns." That something seems to be universally embedded in human languages tells us something about how the mind works, but not, I would argue, anything about the deep nature of reality.

useful in nunacing the question of how something does or can exist. However, it does not directly address the question of how individuals operating from the same Kosmic Address might differ in their conceptualizations. Also it is not yet apparent whether the concept of Kosmic Address itself is sufficiently determinate. In contentious dialogs about the validity of specific claims, will participants be able to agree on the parameters of the Kosmic Address itself? How contentious will the specification of the developmental levels or formal perspective of interlocutors become?

The strategy of concluding that another person is developmentally not up to snuff and accepting that they don't have the capacity to engage with our beliefs or engage at the level of discourse we hope for is, though sometimes perfectly valid, also problematic. In doing so we (a) risk misdiagnosing the other using a simplistic categorization system; (b) miss an opportunity to connect more deeply with both the person and the ideas in front of us, and (c) miss an opportunity to more seriously reflect on our beliefs and selves in the face of an authentic encounter with another (and see Kögler, 1992, on critical hermeneutics and self-distanciation). Admitting that I, and all of us, unavoidably constantly make these sorts of calls to judge the "adequatio" of the listener and gauge how deeply we will engage, we want to take seriously the question of how integral beliefs are explained and argued for in rational public discourse. Embodied Realism provides an additional resource for explanations of why interlocutors may disagree.

Spiritual ontologies. In Integral Spirituality Wilber defines the spiritual line of development as addressing "what is it that is of ultimate concern." This includes the "perennial" ontological/metaphysical questions central to all religions: Who am I (are we)? Where do we come from and where are we going (life, death, and soul)? Where did the Universe (or everything) come from and were is it going (cosmology)? What is it made of (what are its essences)? Does God exist (and what does he/she do and want)?[38] Wilber's spiritual and esoteric themes are a primary draw for many of his readers. His Integral Spirituality is in part an attempt to provide a post-metaphysical treatment or spiritual realities, transpersonal phenomena, and perennial principles from religions and wisdom traditions. Spiritual themes in integral discourse include the three faces of God; the primordial, the non-dual Ground of Being (the Absolute); Higher/Authentic self ; Eros and Agape; and Omega Point.[39] Though Integral Theory is explicitly post-metaphysical (especially in the "Wilber-5" phase), some of Wilber's concepts veer uncomfortably

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[38] We eschew the less ontological perennial questions such as: How can I know the right/moral thing to do? Is there an ultimate purpose for the universe or for me? How do I cope with suffering and respond to evil? How do I improve myself (spiritually)?
[39] Bhaskar's most recent work on meta-reality touches on overlapping themes. However Bhaskar's audience is primarily philosophers, while Wilber's addresses a more general audience, so their styles of argument are quite different.

close to the metaphysical—e.g. Primordial Perspectives, Eros and Agape, involution, Kosmos, Omega Point, and nonduality.

In Murray (2013) I explore some of the challenges that arise in discussing mystical, metaphysical, and spiritual concepts in a post-post-modern and post-metaphysical age. Below I will briefly summarize some of the key points that relate to Embodied Realism and epistemic drives.

[1] We can note that metaphysical questions call out for answers from deep within the human psyche—they are often, as Wilber notes, themes of ultimate concern. From the perspective of epistemic drives, this might imply that the human drive to find answers to these questions is quite strong—and the more certain the answer the better. Many of the concepts involved, such as Truth, Morality (goodness), and Beauty, are quite abstract and thus particularly susceptible to indeterminacy (fuzzy boundaries and metaphorical pluralism). The marriage of high levels of importance with high levels of indeterminacy explains some of the chaos and vigorous disputation around religious and metaphysical themes.

[2] Wilber's approach to these themes combines the idea of Kosmic Address (from Integral Pluralism) and his Three Strands summary of the scientific method, and is best summarized in his excerpt *Integral Semiotics*.[40] He basically says that what he is referring to when he speaks of God, Agape, non-duality, etc. is only observable or comprehendible from advanced states of development and state-practice realization. Those who do not agree with the whole premise of the Kosmic Address will find this to be a cop-out—and it begs the question of "privileged access" decried by constructivists. Part of the post-metaphysical attitude is that, call it what you will, there is no avoiding differences in expertise and developmental capacity in questions of truth. Yet, while Wilber's spiritual themes are important and his analysis is insightful, he faces a conundrum in justifying them. To meet the modern criteria they must anchor in experiences that his audience has access to (given certain injunctions). But, based on his own description of developmental levels, the vast majority of his audience will have at most fleeting glimpses or frequent but vague tastes of the deeper realities the concepts point to. This would seem to call for massive misunderstanding and misplaced concreteness around IT's spiritual ontology (though it may be a risk worth taking if the exposition helps a sufficient number understand and integrate something they have a taste of).

[3] The theory of Kosmic Address says that to understand a thing one must first have access to it experientially in the world-space that reveals it (which might requires contemplative training) and secondly must

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[40] In preparation, with a draft available online at http://www.kenwilber.com/blog/show/758.

have the developmental capacity to see it as intended (which might mean at a given level of *complexity*; and might mean at a given level of *purity* in which certain biases an filters have been transcended). However even if these conditions are met, all of the concerns brought up in Embodied Realism hold. To those developed enough to have these experiences, they are still raw experiences for which one must use language to bring them into intersubjective space. In this sense describing non-duality is similar to describing the taste of chocolate. To one who has not experienced it (or something like it) no amount of language will reveal the referent. And for those who have experienced it, all the same sources of indeterminacies are present. More developed individuals will have more skill in observing and ameliorating the sources of indeterminacy. Yet, as is proven out by differences of opinion expressed by accomplished adepts and brilliant philosophers throughout history, there is no avoiding the indeterminacies in abstract philosophical discussion about essential aspects of reality, self, or spirit.

Conclusions: enacting ethical ontological reasoning

The arc of progress in Western Philosophy and Science can arguably be described through a developmental lens as having two chapters. In this simplistic narrative the first chapter is of increasing mastery of the faculties of reason and rational control (formal operations) and "mastery" of much of the natural world. During this period (i.e. up though Modernity) many of the physical needs of man have been satisfied (food, shelter, medicine, education, transportation, etc.—for a large percentage of Westerners). We are currently beginning the second chapter, in which man, through his ideations and "solutions," has created our direst contemporary problems (climate change, species extinctions, economic inequality and instability, obesity, terrorism, existential despair and isolation, etc.). In our struggles we increasingly see that in Modernity it is human nature that must be understood and mastered in order to create sustained happiness.[41] Embodied philosophies say that a root cause is the *disembodied* character of Western-style reason, and that deeply understanding the implications of embodiment is one path home. In developmental terms this means building post-rational or post-formal faculties—e.g. understanding of the limitations of formal/logical reason and learning the "wisdom skills" of incorporating intuition, unknowing, ethics, critical self-reflection, and body-based self-knowing into reason.

Embodiment has many branches. In addition to the epistemological and cognitive-science oriented themes central to this paper, and the situated and social constructivist themes also mentioned, are pragmatic and ethical

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[41] Again, this is clearly a Western story. The East figured this out without needing to develop modern forms of life or technology. However the answers lie not only in mastery and liberation of the *individual* mind/body, but in the understanding and liberation of *collective* forms of fallibility—an area in which the East does not have a strong advantage.

themes. Increasingly thinkers and leaders are called upon to be more integrated. That is to: enact a life consistent

with their ideas and ideals; consider the real moral/ethical/spiritual implications of ideas (including theories, models,

etc.); and consider the wider systemic implications of ideas (in AQAL terms: to integrate first, third, and fourth

quadrants into second quadrant creations).

Habermas speaks about "emancipatory" knowledge and interests in dealing with self-knowledge and self-

refection (1971).[42] Embodied philosophies that expose universal sources of fallibility provide tools for emancipatory

self-critique. They also help good ideas spread in more ethical ways. As long as one is developing and using integral

theories and models within the community of the enculturated (preaching to the choir), sources of fallibility may

seem inert or unimportant. But this (meta-) knowledge is important when we try to (a) cross disciplinary boundaries

to interact with other communities, (b) apply these ideas and explain one's purposes to stakeholders, or (c) have a

constructive dialogue with others who don't agree with some aspect of the theory or model—that is, when the

integral world view needs to reach across and communicate with other world views or conceptual frames.[43] And of

course, such reaching out to, positively affecting, *and being affected by* individuals with other conceptual frames is

the real end goal of integral theory and practice.

Integral theories straddle and connect multiple (one could say all) disciplines and modes of inquiry. To

build credible arguments for and relationships with multiple disciplines it behooves integralists to develop styles of

argumentation, meta-dialogue, and self-reflection that speak directly to the sources of indeterminacy of particularly

abstract, metaphysical, or esoteric claims. The implications are important because, as Lakoff and Johnson put it:

"radical change in our understanding of reason [leads to] a radical change in our understanding of ourselves" (p. 3).

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[42] Habermas (1971) defines three types of human knowledge and interests: instrumental (objective), dealing with understanding and control over our environment; practical (intersubjective), dealing with social norms— expectations about social behavior; and Emancipatory (subjective), dealing with self-knowledge and self-refection.
[43] In Murray (2011) I call this "The Idea Portability Principle:" that *understanding and dealing with the indeterminacy of ideas is more important the greater the distance between the world views or beliefs of interlocutors.*

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