

# Towards an Integral Epistemology

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This paper traces the development of the philosophy of science from a positivist to postpositivist conception before making the case for an integral conception based on an Integral epistemology grounded in the Integral post-metaphysics of Integral Methodological Pluralism. It puts forth the enduring truths of each as essential features of an Integral epistemology that resituates and embraces the truths of Modern and Postmodern approaches to science.

## Introduction

For many millennia, the search for truth has motivated human endeavors into the realm of science. Rather than focusing on this motivation, this paper explores several conceptions of science that have guided the search for truth in the physical and human realms. In the broadest, most traditional sense, the aim of science is to generate truth—something that corresponds to fact or reality—and knowledge—awareness or possession of truth—in order to achieve a greater understanding of the world. Characterizing the aim as such is correct in only the most general sense, however, as it fails to capture the shifting nature of the philosophy of science—from a positivist to postpositivist to integral conception—as well as the epistemological foundations that underlie these approaches.

The positivist conception of science is rooted in the belief that only those things of which we are absolutely certain can be counted as knowledge. Put differently, positivism holds that if the requirements of apodictic truth—truth that is demonstrably or indisputably true—are not met, knowledge is not admissible to the body of scientifically approved statements.<sup>1</sup> This conception of science has characterized much of Western thought since its beginnings in Greece when foundations such as Plato's realm of ideas were put forth as the ground upon which such claims of certainty could be grounded. It wasn't until the beginning of the nineteenth century—when scientific study turned its lens towards subjects in the human realm—that the traditional understanding of science became central to the debate surrounding which methodologies could provide certain or objective truth while also addressing the unique challenges presented by the human realm. Many argued that the standards of a positivist conception of science required too

much of what was so vital to human experience to be ignored if one was limited only to areas of study that yielded to methods that produced certainty.<sup>2</sup>

At the heart of this debate was a battle over what we believe to be true and what we know to be true. Plato, in an effort to make a distinction between experience and reality, called the former *doxa*—our opinions and beliefs—and the latter *episteme*, which concerned certainty and knowledge.<sup>3</sup> Scholars argued that the methods used to study the physical realm had sole claim on *episteme* while those of the human realm dealt only with *doxa*. This distinction restricted the search for certainty and truth to the study of the physical realm. Consequently, epistemology—the *logos* or study of *episteme*, or the search for the foundations of knowledge upon which we can be assured of truths we hold—was also limited to the physical realm.<sup>4</sup> Science is derived from the Latin root *scire*, which means, “to know.” Implied by this meaning is an epistemology that embraces the distinction between what we believe about our world (*doxa*) and what we know to be certain and true (*episteme*). As a term, science holds these distinctions, but as a practice it has strayed from the idea of a general search for knowledge in all realms—both physical and human—and has instead come to represent a method by means of which certain knowledge can be derived.<sup>5</sup>

Postpositivism challenges the idea that one method can be used to arrive at apodictic or indubitable truth. In fact, it challenges the mere existence of such truth, as knowledge—held to the standards of practical argument and utility—is held to be the best understanding that a community of scientists have been able to produce so far. Knowledge is not a statement about absolute reality but rather the end product in the creative search to understand the world better through science. Utilizing a postpositivist conception of science, one is not limited to a single method but can employ whichever approach is responsive to the questions and subjects under study. This approach is then deemed acceptable if it produces results that a community of scientists deems fuller, deeper and more useful than previous understandings.

Harmon Chapman called knowledge claims of this variety assertoric propositions as they can be denied without contradiction and are therefore not apodictic, but they are supported by evidence and remain open to future substantiation and modification as more evidence is gained.<sup>6</sup> Postpositivism maintains that apodictic knowledge is impossible to gain as human beings cannot gain an absolute viewpoint outside of the cultural and linguistic systems in which they are embedded. Assertoric knowledge is therefore conditional as it is constructed within conceptual frameworks and worldviews. These ideas can, and indeed have, slipped into an extreme

relativism where it is said that nothing is certain and that all knowledge is relative to the subject in question.

Between the extremes of absolute certainty and absolute uncertainty, Donald Polkinghorne asserts that knowledge claims can be judged against one another and some can be accepted while others are rejected.<sup>7</sup> He feels that if our conception of science rests between these two extremes, the human sciences can take up a syncretic approach which integrates multiparadigmatic systems of inquiry in order to provide knowledge about being human as we experience it as historical, integral and embodied.<sup>8</sup> Polkinghorne does not elaborate on these goals for human science nor does he provide a framework for the syncretic approach that would indeed be needed to integrate positivist and postpositivist systems of inquiry. To integrate the positions of these seemingly disparate camps—to transcend the extremes towards which each gravitated while also including their most enduring truths—we will need to call on a robust framework upon which the integration can be grounded.

Integral Methodological Pluralism (IMP)—as developed by American philosopher Ken Wilber—I believe, offers such a framework.<sup>9</sup> Not only does IMP provide a framework that allows for the integration of positivist and postpositivist thought, it offers an epistemological foundation upon which a new conception of science and a more inclusive understanding of knowledge can be based. IMP offers an approach that includes a version of both the positivist demand for objective evidence as well as the postpositivist demand for intersubjective grounding—without which what is offered are truth claims based either on empirical falsehoods housing imperialistic power or supposedly culture-free claims based on the idea that all phenomena are given rather than partially constructed by a knowing subject.<sup>10</sup> Before we turn towards the integration of positivist and postpositivist epistemologies, we will review exactly what it is that needs integration.

## **From Positivism to Postpositivism**

This section explores the historically significant ideas or tenets that have been part of some conception of positivism. When possible, a reference will be made to the point in history when the idea first appeared. In an effort to display the extremes to which the debate over the epistemological foundations of science has gone, the postpositivist counter position is also

offered. Presenting these ideas in this manner will also establish the contours of what IMP hopes to integrate.

The development of empirical investigation can be traced back to the late renaissance period when the writings of Bacon, Galileo and Newton first proposed methods that moved beyond the metaphysics of Aristotle. In 1620, Francis Bacon published *Novum Organum*, which proposed that Aristotle's idols be replaced with the inductive-experimental method.<sup>11</sup> Galileo's *The Dialogue Concerning Two Chief World Systems*, published in 1632, agreed with the Greeks that nature operated consistently and that its patterns could be described using mathematical formulas. He jettisoned Aristotle's teleological explanations as he believed that variations in nature do not take place so that some purpose was accomplished.<sup>12</sup> Newton combined the experimental methods of Bacon with the mathematical and theoretical approaches of classical science. In 1687, with the publication of *Mathematical Principles of Natural Science*, he emphasized the need for experimental confirmation of theses about nature. He felt that such an approach would advance the general understanding of the natural world.<sup>13</sup> In the *Little Treatise*, Thomas Hobbes described human sensation, thinking and the mind in general as variations in motion in an animal organism. He was the first to say that consciousness in the human realm could be studied in the same manner as an object in motion. He disagreed with Descartes as to the separation of mind and matter as he saw mind as part of nature and not a second basic substance.<sup>14</sup> Writing between 1830-1850, Auguste Comte proposed that the study of human phenomena be brought into alignment with the methods of the natural science and that all negative thinking be given up for the positive, scientific study of the human realm.<sup>15</sup>

The rejection of negative thinking—thinking that relies on principles that have not been verified empirically—is the first tenet of the positivist conception of science. According to positivism, we must be limited to facts or else be lost in the realm of speculation. Negative thinking is seen as an expression of confused thinking, resentment or ideology. Another central idea of positivism holds that the scientific method of the natural sciences is the one correct method. For Comte, the methods that were successful in astronomy were the model for science. Later, it became the methods of physics. The results produced by an application of these methods were all that could count as valid knowledge. They were valid everywhere, at all times and in all domains of knowledge. A discipline that did not prescribe to this way of thinking was said to be in a pre-scientific stage of development.<sup>16</sup> The postpositivist response tracks the development of original methods that proved successful in the human realms; methods that

focused on capturing an understanding of human communication and subjective experience.

Starting in the nineteenth and early twentieth centuries, human science methods paralleled the efforts in natural sciences as attempts were made to study human subjects. However, since the human realm is that of actions, expressions, meanings, subjective experiences and symbols, the primary form of inquiry aimed at understanding human meaning as expressed in language, actions and other forms of communication. In the nineteenth century, interpretation turned to the study of documents, artifacts and artworks in order to construct accurate pictures of societies across history. Human scientists analyzed cultures by living amongst natives. Psychologists developed case histories of problematic human behavior. Sociologists observed people in their own societies as they endured urbanization and industrialization in order to explain the tendencies of modern societies. In the twentieth century, methods similar to that of the natural sciences came on line as quantitative and experimental methods were used to isolate patterns and relationships amongst variables describing different aspects of human phenomena.<sup>17</sup> Natural science methods, however, albeit useful in the human realm, are not the only methods that have proven successful, however.

Comte believed that by abandoning the speculative ideas of philosophers, and replacing them with positive, scientific approaches, the suffering and chaos caused by social systems based upon those ideas could be alleviated. Progress would result from development of a new positivist social order, which would be the result of discovering the laws and regularities of social behavior. This is the root of another central tenet of positivism. Progress, it was believed, will come through the extension of a positive approach to knowledge. Comte believed the human mind developed through three stages. First, was a theological stage in which the world was explained in terms of anthropomorphic gods and spirits. Second, was metaphysical stage where conceptual abstractions—which, at their root were wishful projections—took place of animistic spirits. Third, was a stage of positivistic knowledge that would reject the earlier stages and replace them with a hierarchy of sciences based on the positive conception of science.<sup>18</sup> The third stage, he felt, would bring about a new level of civilization by eradicating religious, philosophical and metaphysical beliefs. Postpositivism, on the other hand, viewed progress in knowledge as contributing to the reinforcement of the status quo unless it was allied with the transformation of fundamental social, structural and political structures. The countless instances of science and technology being used as tools for the destruction of humans, nature and culture—

from nuclear warfare to environmental pollution—demonstrates that science alone does not lead to progress.<sup>19</sup>

A version of positivism put forth by Richard Avenarius and Ernst Mach described a more restricted view that contributed to the development of another lasting conception of positivism. In the human realm, only observable, measurable behavior is legitimate data for science. Subjective and internal experience is meaningless. Avenarius, in *Critique of Pure Experience*, presented a system of empiriocriticism that attempted to develop a natural concept of the world based on pure experience that is directly given by “the sensa.”<sup>20</sup> In 1886, Mach wrote *The Analysis of Sensations*, which held that the most basic elements of analysis were what was presented through the direct experience of one of the five senses.<sup>21</sup> By limiting science to a description of these basic elements error could be avoided. In explanation, consider two people describing the same object as both a chair and a stool.<sup>22</sup> According to Mach, the distinction between chair and stool would not exist in the basic elements that are sensed. If described using only the basic elements of sense data a common description of “a white, round plane with four rectangular legs attached” would be reached. This illustrates another tenet of positivism. Namely, only individual, isolated occasions of observation of the external world exist for certain. Thus, a science based only on observable sensations could provide a foundation for certainty.<sup>23</sup>

Wilhelm Dilthey—a chief architect in the postpositivist movement in the human sciences—appreciated the positivist position that real knowledge is rigorous scientific knowledge based on an empirical foundation. His primary argument against the positivist position concerned the nature of an appropriate empirical science for the human realm. Dilthey believed life was not merely a machine that could be explained as series of mechanical movements that organized metabolism. Instead, he viewed life as the experience of our activities and reflections as we lived out our personal histories. It was an empirical fact, he believed, that individuals stood in a complex texture of relationship with others, not as merely isolated elements to be studied from the basis of external observations alone.<sup>24</sup> Rather, they must be investigated at the level of their connections to social and cultural life. Human science should take up the study of the entirety of human life and all of life’s expression. He dismissed the empirical view that all we experience are merely sensations and impressions, and even went so far as to accuse the positivists of metaphysical dogmatism for insisting that knowledge must be sought only from pure sensation, which he saw as an abstraction resulting from the attitude taken toward the lifeworlds of humans. He felt the task of human science was to understand the organizing themes that make experience

meaningful and that the recognition of meaning was another perceptual experience that the human sciences must utilize.

The belief in the existence of meaning creating contexts put Dilthey, along with Giambattista Vico, Franz Brentano, Edmund Husserl, Max Weber and William James—all leaders of the postpositivist response—directly at odds with four other central views of positivism. First, that knowledge is the product of the knower as an individual observer and that shared knowledge is essentially a collection of the knowledge of solitary knowers. Second, that the knower existed in a passive or neutral relationship to reality that consisted of receiving facts through sensory data and then building knowledge upon those facts. Third, that the knower's context only entered into knowledge as an intruding subjectivity, and fourth, that history—which is fundamentally a context—does not exist as the world is a totality of facts that apply universally across time. Just as the knower's context should not enter science neither should his social or historical context.<sup>25</sup> Giambattista Vico, an eighteenth century forerunner of the anti-positivist position, believed that a true understanding of human phenomena was to be had thorough the study of human history. He felt the laws of historical development were the laws of the structure of meaning. Even though his work went almost unnoticed at the time, it was significant in that it was the first call for the study of the human realm—free from theology and metaphysics—that looked towards social life as it was developed by and created through human meaning.<sup>26</sup>

In 1858, Johann Gustav Droysen used the terms *eklarern* (explanation) and *verstehen* (understanding) to distinguish between the methods of the physical and human sciences. Akin to Kant's distinction of theoretical and practical reason, Droysen differed from Kant in that he did not believe that practical reason—that which was concerned with moral reasoning—was a part of nature. Droysen and other neo-Kantians felt that cultural phenomena as expressions of meaning needed to be comprehended as separate from nature. Cultural phenomena required *verstehen*, a mode of understanding that the neo-Kantians, unlike the positivists, viewed as a legitimate form of knowledge.<sup>27</sup>

Wilhelm Wundt, considered by many to be the father of psychology, also supported the inclusion of subjective context in development of knowledge. Wundt emphasized the role of what he called *apperception*—a view that stood in opposition to the idea of perception being a passive activity of the knower. *Apperception* refers to the activity of integrating and creating the perceptive experience. This process was central to the complex mental event that synthesized

elements of independent biologically related *sensa* into higher unity. Wundt was specifically interested in subjective experience, which he studied with techniques that he borrowed from the physical sciences.<sup>28</sup>

Brentano shared in the belief that science should inquire into the human experience in its fullness, which included value and judgment, in addition to the perception of objects. He called for two divisions in psychology: genetic psychology, which would explore the causal relationships of the various aspects of a widened empirical realm that included subjective experience, and descriptive psychology, which would map out the structural features of the basic categories of experience so that causality could be determined. Brentano saw mental phenomena as referring to physical phenomena—that is, the objects of direct sense perception. Where positivism was concerned with only physical phenomena, psychology—as conceived by Brentano—was to study the rest of experience or the acts of subjective experience that referred to objects. The basic types of acts fell into three categories: representation, judgments, and emotive acts, which included desires and feelings. Without exploring each of those in depth, let it be seen that Brentano had adopted a view of science that included the subjective experience of a knower of objects in the physical world.<sup>29</sup>

Edmund Husserl—pioneering father of phenomenology—looked at the essential structures of consciousness and the intuitive grasping of the essences of phenomena. The non-empirical *eidos*—essence or essential structure—he said, existed prior to the empirically present factual material. Objectivity is constituted by consciousness and the *eidos* is necessary for recognizing any certain thing. Essences are not object-like existents. They can't be investigated or perceived in the manner of objects. The essence of an object is what remains as the given in consciousness. Polkinghorne explains the concept of essences as concerning the “how” rather than the “that” of objects. That is, How is it that the experience of “ball” is possible?; not, Is that object a ball?<sup>30</sup> While a full understanding of the concept of *eidos* would require greater explanation, let it be seen that Husserl recognized the constitution of phenomena in consciousness as both historical and multiple. That is, he saw consciousness as not confined to the individual but rather as trans-individual or in part created and defined by the shared subjective contexts of individuals across history.<sup>31</sup>

German sociologist Max Weber viewed the cultural and social sciences as that of human actions. He believed action was defined by any behavior that has a subjective meaning attached to it by the actor. Action was not just an event in nature but rather a behavior guided by value,

meaning and other human-added features. And it was the human-added dimension of meaning that was the object of inquiry for the human sciences. Weber believed that meaning was not accessible by empirical observation but rather by verstehen or interpretative understanding alone. The understanding of meaning was a prerequisite to explanation. A researcher must be able to understand the meaning of an action before they could fully grasp why it occurred. Again, this is an instance of the knower's context playing an indispensable role in the development of knowledge about the human realm.<sup>32</sup>

In 1912, American philosopher William James<sup>33</sup> published *Essays in Radical Empiricism* in which he held that science should admit nothing more than what is given in direct experience. His radical empiricism held that the connections and relationships between elements of sense data were as real as the elements themselves. Direct experience is not made up of isolated bit of sensation compiled into the appearance of a physical object. Rather, he felt that what appears is already ordered according to structural patterns and relationships that are basic to the nature of experience. The structural patterns and contexts of relationships are given in direct experience and therefore should be included in science.<sup>34</sup>

The response to positivism as characterized by the theorists discussed above was not unified and did not develop in a coherent alternative to the positivist approach to science. The use of physical science methodologies in the approach to human science became the standard for university departments, textbooks and journals. In fact, during the 1920's, with the addition of Russell's new logic to the empirical tradition, the positivist approach entered a period of renewal and refinement in which it became known as logical positivism or, later, logical empiricism. The logical positivists focused their attention on statements about the world as the products of science. Statements that were ambiguous and nonreferential were to be removed from scientific work. They utilized two perspectives in their analysis of scientific statements. Both the sensationism of Mach and the new logic developed by Russell and Whitehead allowed them to analyze statements to determine if they were tied to sensation and connected through logical relationships.<sup>35</sup> This focus exemplified the last four central tenets of positivism: (1) only facts derived from observation organized according to theories formulated as general laws comprised knowledge, (2) only potential laws involving relationships between experimentally and observationally verifiable variables can be included in knowledge, (3) only hypotheses that generate confirmable predictions can be used in the formation of laws, and (4) laws must be

formulated mathematically and connected to each other through logical deduction to count as knowledge.<sup>36</sup>

By 1930, logical positivism had undergone a significant change in its insistence that knowledge must be episteme. The early version of logical positivism adopted a phenomenalist standpoint, which allowed only what appeared in consciousness via sense data to be used in the development of knowledge. This was later replaced by a physicalist doctrine, which recognized that scientific statements should refer to objects and relationships in the world rather than in only private experience. This opened up the possibility of intersubjective verification and marked the abandonment of the classical positivist notion that knowledge must be episteme. Physicalism allowed for intersubjective agreement to be a sufficient form of justification.<sup>37</sup>

The second addition to logical positivism was the logic of Russell, which primarily concerned the relationship between valid propositions and the conditions under which one proposition may be inferred or deduced from another proposition. For Russell, logic is concerned exclusively with validity, and what determines validity is the form of the argument—or the relationship that holds between its parts. If this form is one of implication, the argument is said to be valid. Aristotle's logic concerned the exclusion or inclusion from a class, while Russell's logic allowed for the relating of statements in a hypothetical "if...then" fashion, which is of particular importance in for relating statements in scientific discourse.<sup>38</sup>

The early positivists had argued against the inclusion of hypothetical terms in science. Developments in logical positivism, however, allowed for their inclusion and with that a form of explanation that explained the why of an event by describing a law under which the event occurred. Ultimately, it was hoped a network of deductive relationships that stemmed from a few general laws could explain all events. The move from using merely descriptive statements to general statements set in relation to each other moved science into the realm of theory and several steps close to the ideal form of science where all statements were deductively related. Despite the allure and initial promise of a deductively unified system of scientific discourse, one has not been achieved. In fact, it has proven difficult to deductively relate the knowledge statements within even one discourse let alone between disciplines.<sup>39</sup> This did not, however, stop attempts to apply the logical positivist conception to the human sciences.

As early as 1942, Carl Hempel had proposed that the deductive system could be applied to the study of history.<sup>40</sup> It even had a profound effect on the methodological goals of the human sciences with both psychology and sociology attempting to formulate systems of empirically

related laws within their own disciplines. The positivists believed that human sciences were a young science as compared to the natural sciences and that linked systems of theory were a goal to which they should continue to strive. Many in postpositivist camp, however, believed that the human sciences should not strive to develop a theoretically unified system and should instead concentrate on discovering correlations between variables through empirical experimentation.<sup>41</sup> This view, developed by believers in a more pragmatic science, leveled critiques at both sensation-based empiricism and the logical positivist approach in general.

By the 1950s, it was clear that logical positivism had failed in its attempts to reconstruct science into a logically linked theoretical system grounded in the certainty of direct observation. It was recognized that logical positivism failed to concern itself with the way that scientists actually worked. Starting around 1960, attempts were made to develop a philosophy of science that was less formalized, more pragmatic and centered on the problems science was confronting. The essence of the criticisms leveled at the approach that dominated the last thirty years could be summarized in four main points. The first concerns the theory dependence of observation reports, which put forth that observations are connected to the whole system of theories and assumptions rather than to just one theoretical statement. The truth or falsity of one theoretical statement could not be determined in isolation of the rest of the network of statements as, in many cases, more than one network of theoretical statements could account for the same fact. The second critique saw theory as a nonlinguistic entity or meaning that is related to linguistic formulations. Theory was a collection of propositions described by various statements and theory development must therefore be focused more on meaning (semantic) rather than on merely structure (syntax). The third critique concerned the partial formulation of theories and the development of a less formalized approach that allowed for explanation that related observable variables in partial formulations or empirical generalizations without having to connect them to general networks of scientific laws. The final critique centered on the problem of induction. It held that no sample of possible instances could provide absolute certainty for an inference that a law is true. Inference from specific instances to general statements was inductive and could, at best, provide probability statements about a law.<sup>42</sup>

Over the next several decades the positivist conception of science was dealt several other critiques that questioned its foundation as an appropriate approach to science. The *Weltanschauungen* (world outlooks) analysis—developed in conjunction with the work of Wittgenstein—put forth the idea that all knowledge is relative to one's perspective and that there

in no absolute point of view outside of one's historical and cultural situation. It held three other critiques as well: (1) that observation is theory laden in that experience is built from an interaction with one's conceptual framework, (2) that meanings are theory dependent in that the meaning of the words used in various theories changes from theory to theory or from context to context, and (3) that facts are theory laden in that what one takes as fact and how one expresses that something is a fact is relative to the worldview in which one organizes their experience.<sup>43</sup>

During the late 1960s and early 1970s, the world outlook position was expanded during a phase of historical realism that viewed science as making progress toward more accurate descriptions of reality. However, it did not agree with the position that scientific statements are only true for their contexts. It was characterized by the belief that a reexamination of science would reveal the essential features that allowed it to produce reliable information about the world. It found that science used patterns of reasoning rather than just logic alone, and that it was these patterns of reasoning that were used to evaluate knowledge claims. Proponents of the reexamination of science returned to the work of philosophers of science, such as Charles Pierce, who were writing prior to the rise of logical positivism in the 1920s. Pierce saw science not as a collection of established truths but as a living historic entity, which was the best method of bringing belief into the closest conformity with reality. The "real," for Pierce, was not the result of investigation but rather the object which investigation continually strived to represent.<sup>44</sup> Historical realism attempted to place science somewhere between the deductive-sensation position of logical empiricism and the overly relative, oftentimes anti-science, nonmethod approach of the world outlook position.<sup>45</sup> This attempt at finding an integrative ground upon which a constructive dialogue between the sciences and the humanities—between positivism and postpositivism, in general—could be based is a step in the direction that this discussion now heads.

The central argument between positivist and postpositivist epistemologies concerns whether knowledge should be grounded in the universal or the relative. Should the knowledge that science aims to create be constructed from observationally derived, universal facts linked deductively as theories, or is knowledge constructed by individual knowers and their respective worldviews? Which is more fundamental, facts or interpretation? What can be said about this debate is that it is decidedly not integral. Proponents of both the positivist and postpositivist conception have taken one side of the argument as truth and dismissed the other as worthless. Neither camp has made a concerted effort to embrace the other's views let alone a meaningful

attempt to integrate them with their own. Such an integration is a daunting task indeed; one that, I believe, requires an Integral epistemology grounded in Integral Methodological Pluralism

## **Integral Methodological Pluralism**

### Three Guiding Principles

Integral Methodological Pluralism (IMP) offers an approach that embraces the partial truths contained in both the positivist and postpositivist positions and then resituates them in a framework that grounds their integration. Before we continue, let us consider Wilber's definition of integral:

Integral: the word means to integrate, to bring together, to join, to link, to embrace. Not in the sense of uniformity, and not in the sense of ironing out all of the wonderful differences, colors, zigs and zags of a rainbow-hued humanity, but in the sense of unity-in-diversity, shared commonalities along with our wonderful differences. And not just in humanity, but in the Kosmos at large: finding a more comprehensive view—a Theory of Everything (T.O.E.)—that makes legitimate room for art, morals, science, and religion, and doesn't merely attempt to reduce them all to one's favorite slice of the Kosmic pie<sup>46</sup>

It is in this sense that we proceed towards the exposition of an integrative framework that allows us to take knowledge claims as it finds them, integrate their partial truths and jettison their absolutistic claims. Integral Methodological Pluralism is a meta-paradigm that weaves together actual practices or behavioral injunctions without privileging one type of injunction. It is meta-paradigmatic in that it conscientiously relates the major methodologies of presently existing conceptions of science through the guidance of three integrative principles. The first principle, nonexclusion, indicates that IMP accepts the valid truths claims of each paradigm to the extent that they are making statements about the phenomena that they disclose, but not when they are making statements about the phenomena enacted by other paradigms. In its most basic sense, the nonexclusion principle prevents paradigms from acting outside their own boundaries. The interpretive sciences of a postpositivist variety, for example, are prevented from passing judgments on the phenomena enacted by the practices of the physical sciences unless they take up the practices that disclose those phenomena. The second principle, enfoldment, suggests that

all paradigms are true and adequate but that some paradigms are more encompassing or more holistic than others. This does not render any paradigm entirely wrong, only that it is true but partial. The enfoldment principle does not allow for violation of nonexclusion in that it only applies to phenomena in the same paradigmatic current. Cross-paradigmatic judgments are handled by the third integrative principle, enactment. The enactment principle states that phenomena are enacted or brought forth by a series of behaviors, paradigms or practices on the part of the knowing subject. Put another way, subjectivity gives rise to a phenomenological world in the process of knowing that world. When two paradigms are deemed incommensurable, it is because the point of comparison and attempted integration is the phenomena, not the practices. The enactment principle shows us that what looked like conflicting phenomena are actually different yet fully compatible experiences brought forth by different practices. And, if it is understood that different practices bring forth different domains of reality, the phenomena can be integrated by a framework that allows for the inclusion of all enacted domains. IMP's component metatheory—AQAL (pronounced “ah-qwul”), which stands for all-quadrants, all-levels, all-lines, all-states, all-types—makes this integration possible.<sup>47</sup>

### Quadrants

Integral Methodological Pluarlism maintains the existence of 8 fundamental methodologies, paradigms or domains of enacted phenomena. Collectively, these are known or referred to as the quadrants, which represent four irreducible aspects of any occasion. Taken together, they represent the interior and exterior of the individual and the collective. These dimensions are reflected in the first, second and third person pronouns used in any language system. “I” refers to the interior of the subjective or intentional domain, “You/We”<sup>48</sup> to the interior of the intersubjective or cultural domain, “It” to the exterior of the objective or behavioral domain and “Its” to the exterior of the interobjective or social domain.<sup>49</sup> Figure 1, illustrates these fundamental realities, or quadrants.

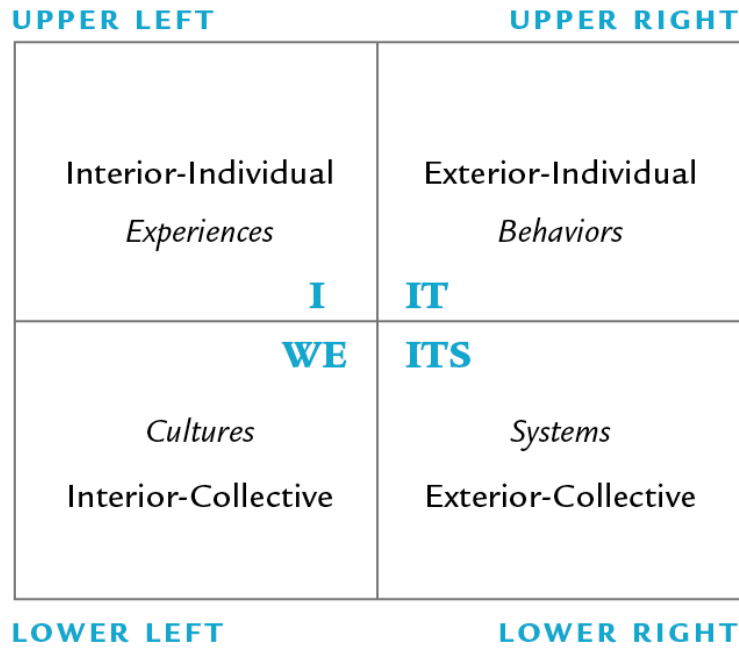


Figure 1. The 4 Quadrants.  
 Source: Wilber (2006). Courtesy Integral Institute.

The 8 methodologies arise when any occasion or holon—a whole/part, or a whole that is part of a more inclusive whole—is viewed from the inside or outside in every quadrant. The 8 perspectives are illustrated in Figure 2, below.

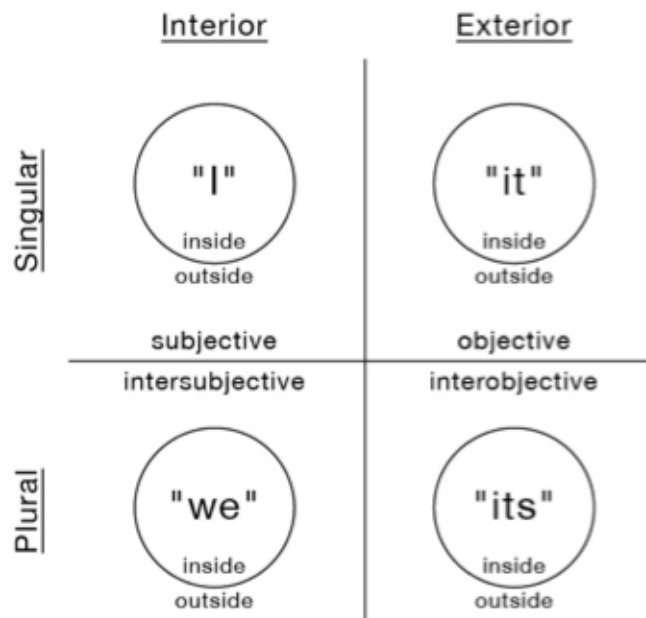


Figure 2. 8 primordial perspectives  
 Source: Wilber (2006). Courtesy Integral Institute.

The 8 perspectives are experienced as lived realities, or lifeworlds. They are not merely perspectives but actual injunctions or practices that enact or bring forth phenomena that are apprehended through the various perspectives. These injunctions are actually the 8 methodologies that comprise IMP.<sup>50</sup> Figure 3, below, illustrates the 8 methodologies.

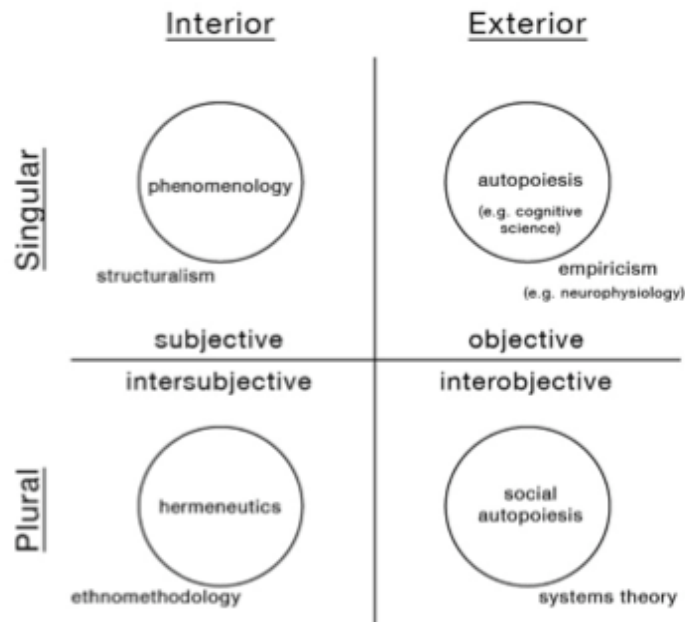


Figure 3. The 8 methodologies of IMP  
 Source: Wilber (2006). Courtesy Integral Institute.

Before continuing, we will explore the 8 methodologies in greater depth. It is important to note that the methodologies listed in Figure 3 are considered primary exemplars of injunctions in these 8 domains, but that they are by no means the only methodologies used to bring forth data in these domains. Starting in the Upper-Left quadrant, the experience of an “I” can be viewed from the inside or the outside. The inside view of an “I” is the felt experience of this moment as accessed via introspection, meditation or other phenomenological approaches. From the outside, an objective observer can take the exterior or third person view of an “I”. This includes a person’s view of their own interior or a person’s view of the interior of another person. The approach of tracking a person’s interior from an exterior view is best exemplified by that of structuralism, which explores the emergence of patterns, or structures, of consciousness over time with particular attention directed towards uncovering the sequence of unfolding.

In a similar manner, the “We” of the Lower-Left quadrant can be viewed from the inside or outside. The inside view of the intersubjective domain attempts to understand how two or

more “I’s” come together in mutual understanding. The investigation of the realm of shared values, meaning and worldspaces is best carried out through hermeneutic approaches, which consider the inside of cultures in an investigation aimed at uncovering the shared meaning that arises between individuals. The outside view of a “We,” as investigated by ethnomethodologies, concerns the investigation of the external manifestations of shared interiors as well as a culture’s patterns of expression and overall development.<sup>51</sup>

In the Upper-Right quadrant, an objective “It” can also be viewed from the inside or outside. The outside view an “It” is examined by traditional empiricism, an approach that contains methodologies such as sensory empiricism and behaviorism. Through the use of the senses and their extensions (e.g. microscopes) the natural sciences study physical elements and forces, living elements and brain behavior.<sup>52</sup> The inside of an objective “It” can be accessed via a third person conception of the first person interiors of third person objects. Developed by Francisco Varela and Humberto Maturana, autopoietic methodologies reveal the inner choices of an organism as it brings forth its environment.<sup>53</sup> Autopoiesis attempts to describe the way any living system creates and re-creates itself, self-regulates, self-organizes and develops itself by replacing or transforming its components.<sup>54</sup> Autopoiesis, which means “self-making,” takes the stance that a biological organism cognizes and actively brings forth a world rather than merely perceiving an already given world.<sup>55</sup>

In the Lower-Right quadrant, an objective systems of “Its” viewed from the outside provides a view not of the behavior of an individual entity but rather the view of differing, interacting entities and a study of their behavior as a whole. The chief methodology employed in the study of “Its” from the outside is systems theory, which reveals the structure, function and emergent properties or unique qualities of a system that differ from those of its parts or members.<sup>56</sup> The inside view of and objective systems of “Its” can be had by employing a social autopoietic approach, which places a researcher inside a system to objectively understand the experience of the system as it responds to the outside environment.<sup>57</sup> Niklas Luhmann was the first to point out that social systems are not composed of organisms but of the communication between organisms and that communication can be viewed from within or autopoietically.<sup>58</sup> Each communication interacts with others and subsequently creates new communications in a self-generating fashion. A boundary of shared context of meaning develops around these communications and determines membership in a social network.

The quadrants provide a foundation for an Integral epistemology that embraces the truth of every domain in a realization that the world can be known from 8 perspectives. Levels, the next component of AQAL, will add another critical element to the unfolding of an Integral Epistemology that provides us with more comprehensive way of knowing the world.

### Levels

A structuralist methodology, utilizing a third-person, objective perspective of individual's interiors over time reveals that human growth and development unfolds across various levels or stages in over two dozen lines of development. Lines of development represent different developmental capacities or intelligences available for all humans to develop through in a relatively independent fashion. While this discussion will not explore the idea of developmental lines in greater depth, it is important to realize that as we continue on to explore the idea of developmental altitude, what is being referenced is the level of development in such lines as moral, cognitive, ego, interpersonal, emotional, kinesthetic, values and needs.<sup>59</sup> Differing degrees of development across these various lines can be represented graphically by an integral psychograph, an example of which appears in Figure 4, below. The concept of relating development across various lines as well as the meaning of the scale on the y-axis in the diagram below will be discussed shortly.

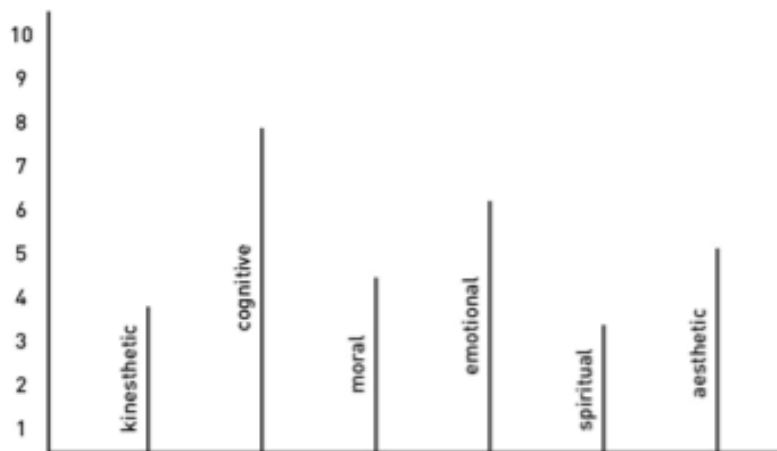


Figure 4. Integral Psychograph  
Source: Wilber (2006). Courtesy Integral Institute

As previously mentioned, phenomenology looks at the content of the phenomena arising in the interior of an individual, whereas structuralism looks for the patterns that connect the phenomena. A typical structuralist methodology would pose a series of questions to a large

group of individuals, see if the responses fell into classes and then track the change in responses over time to see if they emerge in a sequential order. Structuralists discovered that answers to such questions show directionality—this is to say that answers change but only in one direction. The underlying structure of these changes is the transcend and include pattern of evolution where emergent capacities appearing at each level are added to the capacities learned at earlier levels of development.<sup>60</sup>

## Altitudes

The concept of developmental altitudes developed as solution to the dilemma of referring to development across various lines. The problems originates when one considers two things: (1) the actual structures or levels in each line are different in content and, as such, levels in one line can not be used to refer to levels in another line, and (2) as shown in Figure 4, development in all lines seems to proceed in the same direction through the same general gradient. In a general sense, the gradient can be described as an increase in complexity or an increase in consciousness, but these definitions fail to capture the essence of what the y-axis scale actually represents. IMP draws on two theories to explain this. The first describes the cognitive line as the basic yardstick relating all developmental lines. It is said to be necessary but not sufficient for development in all others lines. This not to say that the other lines are variations on the cognitive but that they are dependent on it to the degree that you have to be aware of something—which is what the cognitive line is describing—before you can need it, identify with it or feel it—which is what the needs, ego and emotional lines are describing, respectively. The second theory posits the y-axis as representing the development of consciousness per se. In this view, all lines move through the same altitude gradient so any level can be said to be “higher” in any line depending upon the degree of consciousness it has developed to.<sup>61</sup> The metaphor typically used to explain altitudes considers each developmental line to be a separate path up the same mountain. While each path may cover drastically different territory—one might be an easy hike while another may be a nearly vertical climb—every path, at some point in its journey passes through 1000ft, 2000ft, 3000ft, etc. The measure of altitude in itself is without content. It is “empty” in the same manner as consciousness per se. Just as the content of every structure is different in each line, every line passes through the same “empty” developmental altitude at some point in its unfolding. The psychograph can then be reworked with the colors of the natural spectrum of light on the y-axis representing increasing levels of development in general, as “altitude-up-the-mountain.” Figure

5 shows the psychograph with the addition of both the altitude spectrum and structures in several lines.

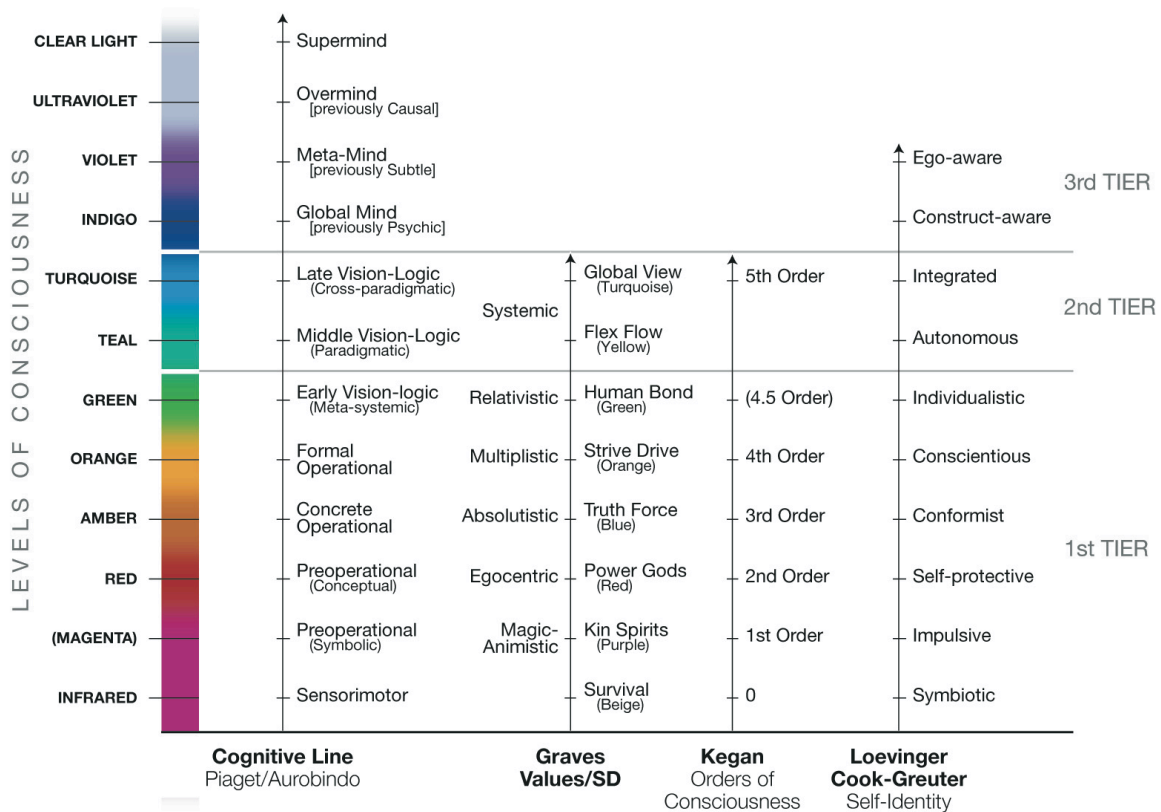


Figure 5. Altitudes and Some Major Developmental Lines  
Source: Wilber (2006). Courtesy Integral Institute

The greatest benefit of the altitude system is that it allows us to refer to levels across lines without making the mistake of equating a developmental structure in one line to a structure in a different line. For example, you can speak of green values, green cognition and green self-identity and retain the distinction between the developmental structure referred to by each—relativistic values, early vision-logic and an individualistic self-identity, respectively.<sup>62</sup> In subsequent sections, we will return to the concept of altitudes and demonstrate how they play a critical role in the development of an integral epistemology.

Taken together, quadrants and levels are the minimum that we need to push forward into the realm of an integral epistemology that embraces the positivist and postpositivist conceptions of science. Before we head down this path, however, we will define the contours of the territory that the IMP brings together in an integral embrace. Interested readers are encouraged to explore

the remaining components on AQAL Theory. For an in-depth discussion of lines, states and types please review Wilber's *Integral Psychology and Sex, Ecology, Spirituality*.<sup>63</sup>

### Integrating Premodern, Modern and Postmodern Truth

The concept of development levels was a discovery of the Premodern wisdom traditions of both the East and the West. For almost two-thousand years, the vast majority of these contemplative traditions believed in a version of the Great Chain of Being which postulated a hierarchy of being (ontology) and knowing (epistemology) that ran from body to mind to soul to spirit. These traditions utilized an extensive metaphysics in that levels were believed to be timeless and eternal givens that existed in an objective or ontological manner. The discovery of Premodern traditions concerned phenomena almost entirely arising in the Upper-Left quadrant. Their introspective and meditative techniques have gone virtually unparalleled, but, without an understanding of the other quadrants, their claims to a universal knowledge—along with their legitimate truths—were thoroughly rejected by the positivist notions of Modernity.<sup>64</sup>

By the time of Comte's attacks on the speculations of philosophy, the wisdom of premodernity was on its way out of the realm of serious discourse in the Modern West. Modernity, which focused on the Right-Hand quadrant's empirical, positivist requirements for truth, represented only one half of the attack on the upper-left. Whereas Modernity destroyed Premodernity on the grounds that they lacked objective evidence for their truth claims, Postmodernity's postpositivist critique destroyed them both on the grounds of a shared blind-spot—their failure to acknowledge the intersubjective truth of the Lower-Left quadrant. Premodernity's methodologies (introspection, meditation, contemplation), it said, fell prey to what Habermas called the "philosophy of consciousness"—the inability to realize that an individual subject who is aware of phenomena arising in his experience can be completely unaware of the cultural context that molds his experience.<sup>65</sup> While Modernity had successfully differentiated the quadrants—something Premodernity did not achieve—the success of the positivist conception of science led to the eventual reduction of all left-hand realities—all interior, subjective realities—to their Right-Hand objective correlates. The only thing they deemed "real" was what could be empirically observed. This unfortunate turn opened Modernity to the same attack that destroyed Premodernity—it failed to take into account the truth of intersubjectivity.<sup>66</sup> Even with a postpositivist conception of knowledge that emphasized the culturally conditioned

and relative aspects of knowledge—a conception that demanded awareness of the Lower-Left quadrant—Postmodernity was not able to escape its own version of quadrant absolutism. The call to bring awareness back to the lower-left eventually moved towards an extreme relativism which insisted that the objective truth of the Right-Hand quadrants was an unfit foundation for knowledge as it was entirely culturally constructed.<sup>67</sup>

The 8 methodologies of IMP represent the actions that can be taken from each of the eight perspectives. The perspectives and the actions tetra-arise, that is, they arise simultaneously to create 8 lifeworlds or inseparable dimensions of reality. These are practical realities, which, according to IMP, cannot be denied or reduced to each other. In their more basic form, the 4 quadrants can be used to situate the truths of all conceptions of science—including positivism and postpositivism—from Premodernity to Postmodernity in a way that allows for their partial truths to be honored and their claims to absolute truth jettisoned.

I will reconstruct the argument in reverse. The Postmodern/postpositivist contribution – that all individuals are enmeshed in cultural contexts that mold and condition what they take as truth—emphasizes the Lower-Left Quadrant. Modernist/positivist epistemologies, in addition to emphasizing the objective truth claims of the Upper-Right, were also the first to spot how economic and social contexts affect the knowing and being of individuals. Systems theory—with its emphasis on the fact that every individual is interconnected with its environment in dynamic webs of relationships—has come to focus on the lower-right. Finally, we have the Upper-Left quadrant, which is where the unparalleled phenomenology, introspection and meditation of the Premodern traditions fits best. An Integral approach, however, cannot deny the crippling blow dealt to Premodernity on behalf of Modern epistemologies. Their reliance on ontologically pre-existing structures—not to mention their ignorance of the quadrants—is enough to seriously question their contributions.<sup>68</sup> True enough, an Integral epistemology would say, but it is not enough to dismiss their contributions entirely. Remember, IMP handles every tradition as true but partial. It is at this point that we turn back to levels and towards the heart of IMP’s greatest offering—Integral Post Metaphysics—the linchpin in the development of a truly integral epistemology.

## **Integral Post-Metaphysics**

### From Perceptions to Perspectives

Integral Post-Metaphysics does not require the metaphysical baggage which ultimately paralyzed the truth claims of Premodernity, yet, as we will see, it still possess the explanatory power of even the greatest wisdom traditions. The interpretative frameworks utilized by the Premodern traditions to make sense of their experiences were laden with pre-existing ontological structures and built upon the concept of perception of phenomena as the foundation for a reality. The first step in replacing metaphysics with post-metaphysics is to replace the notion of perceptions with perspectives. A subject perceiving an object, before anything else, is in a relationship of first-person, second-person and third-person in regards to the perceived occasion. According to post-metaphysics, subjects don't prehend objects.<sup>69</sup> Rather, first-persons prehend second or third-persons as perceptions always occur within perspectives. Wilber elaborates:

Even if we say, with the materialist, that the world is composed of nothing but physical atoms, nonetheless "atom" is already a third-person symbol being perceived by a first-person sentient being. And if we try to picture an actual atom, that too is a third-person entity prehend by a first person. In other words, even "atom" is not an entity, or even a perception, but a perspective, within which a perception occurs (i.e., all perceptions and feelings are always already within the space of an actual perspective). But surely, the critic would say, we can still imagine a time that there were only atoms, not humans, and therefore atoms existed without arising in a human perspective. (That again is still a third-person image held by a first-person awareness; but let's imagine that we can imagine a time without human perspectives.) It is true there was a time before humans emerged. But if the world is actually panpsychic, then each atom had a rudimentary awareness or proto-experience of other atoms, and hence a first atom aware of a second atom is already and actually a first person in touch with a second person. In other words, these perspectives are indigenous to all sentient beings; if sentient beings go all the way down, so do perspectives. Thus, sentient beings and perspectives, not consciousness and phenomena, are the "stuff" of the Kosmos.<sup>70</sup>

In summary, the world is not composed of feelings or awareness or perceiving consciousness as Premodernity suggests. Before anything else, each of these is understood by first taking a perspective. Even Postmodernism's insistence that perceptions are interpreted is an example of what Wilber calls a low-order metaphysics because both perception and interpretation are themselves perspectives prior to the start of any interpretation.<sup>71</sup> With one piece of metaphysical baggage dispatched, post-metaphysics offers a second suggestion: re-think the idea of levels of consciousness as pre-existing, eternal structures.

### Kosmic Habits

The Premodern metaphysical traditions believed that the levels in the Great Chain of Being—which generally progress from body to mind to soul to spirit, but have been explained by many Premodern theorists as having upwards of a dozen or more level—were timeless givens that existed in an a priori fashion prior to the start of the evolution of the universe. Integral Post-Metaphysics clarifies this point by distinguishing between involutory and evolutionary givens. While involutory givens—the term used by Integral Post-Metaphysics to refer to timeless givens or givens that existed prior to the Big Bang—do indeed exist as postulates required for the evolution of anything, they do not include actual levels with actual content as put forth by Premodern thinkers.<sup>72</sup> Instead, these levels are reworked as evolutionary givens, or, as Wilber describes, "...forms chaotically created in temporal unfolding and then handed to the future, *not* as forms that were predetermined even before they unfolded, but simply as Kosmic habits that various forms happened to take in the AQAL evolution, forms that were then handed as a priori to the next moments, an a priori determined not be eternal archetypes but by temporal history."<sup>73</sup> Put simply, what metaphysical thinkers thought were timeless givens are actually forms that have developed in time, over the course of evolution. Levels of development are evolutionary givens or Kosmic habits laid down as increasingly ingrained potentials—which affect all subsequent development—throughout the history of developmental unfolding. This is not to say that Integral Post-Metaphysics does not require involutory givens—it does, as we will see—but they are of the type that are defensible in reference to the modern and postmodern forms of knowledge justification.<sup>74</sup> At this point, let us turn to an example of levels of being and knowing that do not require metaphysical thinking.

The lower levels of Great Chain of Being have evolved over the course of 14 billion years of evolution from matter to sensation, perceptions, impulse, emotion, symbols and concepts. The stunning thing is that the order in which the premodern thinkers said the Great Chain unfolded is incredibly accurate when the Great Chain is looked at as the unfolding of evolution: matter arose with the Big Bang, sensation with the neuronal organisms, perception with the development of the neural cord, impulse with reptilian brain stem, emotion with the limbic system in the first mammals, symbols with the neocortex in the triune brain of the first primates and concepts with the complex neocortex in the first humans.<sup>75</sup>

From the emergence of concepts with the first humans, let us now take a look at human value development to see how the rest of the Great Chain has unfolded as cosmic habits through evolution. The pertinent portion of Figure 5 showing altitudes and their correlative value structures is below for reference as we go forward.

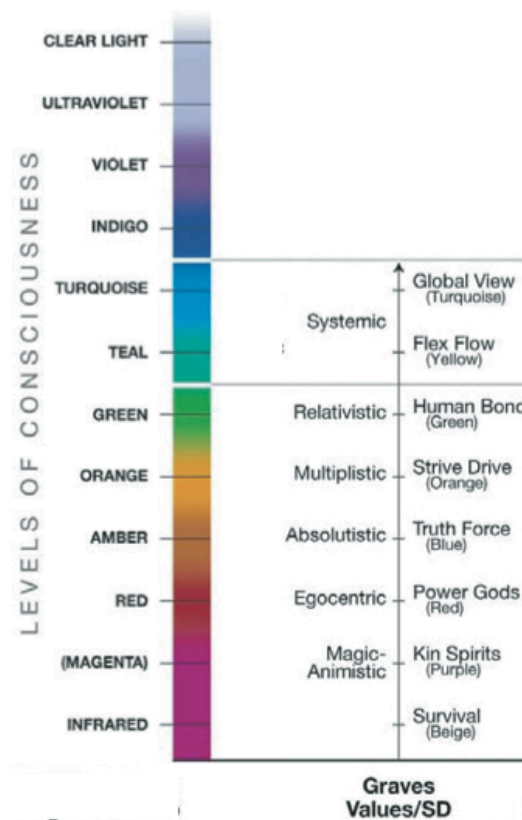


Figure 6. Altitude and Value Development.

Source: Adapted with permission from Wilber (2006). Courtesy Integral Institute

Around 50,000 years ago, the magenta value structure (magic-animistic) was the pinnacle of human evolution as a whole. However, a few highly evolved individuals were pushing to higher

and more complex levels of consciousness. As more people began sharing those higher values, the red value structure (egocentric) began to be laid down as a kosmic habit. The more people that shared red values the more fixed the habit became. At around 10,000 BCE, enough people had developed to the red value structure that it came to represent the new pinnacle of humankind's value development. In a similar manner as before, a relatively few individuals were pushing into the higher realms and began laying down the amber value structure (absolutistic). Again, as more and more people shared amber values it too became an increasingly fixed habit in the kosmos.<sup>76</sup>

Around 6000 years ago, the sum total of human evolution had laid down as fixed, kosmic habits every value structure from infrared to amber. These levels were now available to all humans. Thus, anyone who was subsequently born had to develop through these four, fixed levels as they were now ingrained habits of the kosmos. As evolution continued to unfold so did this process of laying down kosmic habits. A few pioneers would break through to higher structures, others would follow suit until the new level was a structure shared by most of humanity. It then became an increasingly fixed kosmic habit available to subsequent generations. While the rest of humanity was catching up, so to speak, more pioneers would be pushing into even higher realms as the process continued. Kosmic habits become actual structures with real content. They are not involuntarily givens of the premodern variety. They are not pre-existing ontological realities. They are laid down over time by actual development as forms of past manifestation, as evolutionary givens, which are handed to future humans as kosmic habits.<sup>77</sup>

The only piece left unexplained is the essence of the drive towards greater complexity that accounts for the emergence of higher structures at each step in evolution. Every moment—in the same manner as every holon and every level—transcends and includes its predecessor in the drive towards greater unity and wholeness. This drive—what Whitehead called “the creative advance into novelty”—is also known as Eros, and it is the only involuntary given required to account for the emergence of higher structures.<sup>78</sup> This minimalist metaphysics—metaphysics in that, like premodern metaphysics, we are talking about a timeless given—is all that is needed to generate the essential features of the Great Chain.<sup>79</sup> Without having to postulate levels themselves as pre-existing ontological structures, Integral Post-Metaphysics—relying only on Eros to drive evolution—honors the critiques of modernity and postmodernity, transcends the metaphysics of premodernity, and allows for the existence of a spectrum of consciousness that stretches from matter to spirit. Along with the 8 perspectives, this spectrum of consciousness is

the minimum requirement for developing a post-metaphysical tool that assures us of the existence of anything in the universe. All-Quadrants and All-Levels—generated by the post-metaphysics of IMP—are all that we need to demonstrate the post-metaphysical thinking at the heart of an Integral epistemology. And, it is integral epistemology alone—not just positivism and not just postpositivism—that can tell us whether any statement of truth about reality has any meaning whatsoever.

### Kosmic Address

Historically, every attempt at conceiving the nature of knowledge has asked questions about reality, truth and existence. Integral Post-metaphysics is no different. At the heart of the idea of Kosmic address is the question “does a thing—any thing—exist?” And, if so, where does it exist? Where can it be found? Kosmic address allows us to specify the “location” of anything in the Kosmos. It tells us if and where the referents to any signifier exist. For example, it tells us where to find the referents to the signifiers: Easter Bunny, eco-system, e-mail and even to words that don’t begin with the letter “e” such as dog.<sup>80</sup> It does this in the following manner:

### **Kosmic address = altitude + perspective**

Immediately, it can be seen that this simple representation of Kosmic address relies on the two components of AQAL that we have previously explored: altitude (levels) and perspective (quadrants). We will explore each individually before we expand the concept of Kosmic address in several important ways.

The altitudes component means that we must specify the developmental level or worldspace in which the actual referent or “real object” ex-ists. Wilber uses the word “ex-ist” in the context of kosmic address to mean “...to stand out, to be known, to be disclosed, to be tetra-enacted.”<sup>81</sup> From this point forward, the altitudes component will reference the first ten levels in figure 4, which are repeated below:

1. Infrared—archaic, sensorimotor.
2. Magenta—magical-animistic.
3. Red—egocentric, power, magic-mythic.
4. Amber—mythic, ethnocentric, traditional.

5. Orange—rational, worldcentric, pragmatic, modern.
6. Green—pluralistic, multicultural, postmodern.
7. Teal—global mind, early vision-logic, higher mind.
8. Turquoise—planetary mind, late vision-logic, systemic.
9. Indigo—lucent mind, transplanetary, illumined mind.
10. Violet—meta-mind and overmind.<sup>82</sup>

If we are looking for the kosmic address of eco-system, we first must indicate that eco-systems ex-ist only in a turquoise worldspace or higher. This is to say that the actual referent for eco-systems can only be found at the turquoise altitude or higher. Does this mean—one might ask—that eco-systems did not exist in the real world 100,000 years ago because people at magenta could not see them. Well, to say that they did exist—that they were lying around waiting to be perceived—is exactly what postmodern epistemologies try to prevent. Remember, there is no pre-given world and objects do not exist independent of a knower’s context. The essential point is that eco-systems were not seen or understood by people 100,000 years ago. One has to develop to at least the turquoise altitude for that referent to be found. This can be denoted easily using the number for turquoise and “L” for level or altitude. Thus, the first part of the kosmic address for an ecosystem is “8/L.”<sup>83</sup>

The perspective component of kosmic address refers simply to the quadrant in which the referent is enacted. Remember, post-metaphysics views all events, occasions, objects and holons as perspectives before anything else. Thus, an eco-system is a perspective that is enacted by—or ex-ists in—the Lower-Right quadrant. It is disclosed as a 3<sup>rd</sup> person (3p) occasion/entity. So, the kosmic address of an ecosystem is indicated as follows: Eco-system<sup>(8/L, 3p)</sup>.<sup>84</sup> With the requisite understanding of the components of a kosmic address, the answer to our original question—“does an eco-system exist, and, if so, where?”—is beautifully captured in this simple notation. The answer: yes, it ex-ists in the turquoise worldspace as seen from a 3<sup>rd</sup> person perspective.<sup>85</sup>

Up to this point, we have been working with the kosmic address of the referent, or object, event or occasion that is being enacted. Wilber reminds us again: “...there is no pre-given world awaiting perception only mutually disclosing perspectives awaiting enactment.”<sup>86</sup> Mutually disclosing perspectives that only exist relative to a sentient being; relative, that is, to the subject that is doing the perceiving. The notion of Kosmic address must be expanded to include this crucial component. To locate anything in the universe, the kosmic address of both the perceiver

and the perceived must be indicated. At this point, we must distinguish between quadrants and quadrivium. Every sentient being has or possess 4 quadrants (8 perspectives) and every object can be viewed through or from the 4 quadrants. Thus, quadrant refers to the perspective of the subject and quadrivium to the perspective that the subject is viewing the object through.<sup>87</sup> In order to capture the quadrant of the perceiver and the quadrivium of the perceived, notation of kosmic address must be expanded in this manner:

**Kosmic Address = (altitude + quadrant) x (altitude + quadrivium)**

An Integral epistemology argues that any statement of truth that does not indicate both the altitude and quadrant/quadrivium of the perceiving subject and object being perceived is caught in meaningless metaphysics. If anyone makes a statement that does not indicate Kosmic Address, they are simply assuming that those referents in question are simply given. Put in another way, metaphysics—or, in short, assertions without evidence—is anything that does not acknowledge and adhere to the chief demand of a post-metaphysical integral epistemology: “The meaning of a statement is the means of its enactment.”<sup>88</sup>

Where is Any Thing Located?

Throughout time, human beings have created languages that represent various realities. These language systems consist of signifiers that have referents, which exist in various worldspaces, and subjects can perceive these referents only if they have developed to the level that contains the correct signified. In a process that he calls “mega-phenomenology,” Wilber provides an example of a “GigaGlossary” that indicates the worldspace in which the referents of the major signifiers used by humans and capable of being “seen” by humans who possess the corresponding degree of consciousness to bring forth the correct signified.<sup>89</sup> The GigaGlossary includes 8 of the 10 altitudes we listed previously. Wilber reminds us that this is a very crude example that is by intention extremely schematic and generalized.

<b>Altitude</b>	<b>Available Phenomena</b>
Magenta (magical-animistic)	Demons, dragons, wizards, rage, lust, rocks, rivers, trees, curses, voodoo, ancestors, clans, huts, villages, horses, spearheads.
Red (egocentric, power, magic-mythic)	Warlords, tribes, 5 elements (earth, air, wind, fire, ether), anger, envy, power, titans, domination, oppression, slavery, genocide, spirit as gods and goddesses of elemental powers
Amber (mythic, ethnocentric, traditional)	Cathedrals, the righteous man, chivalry, salvation, charity, 2nd-person perspective, spirit as omniscient, omnipotent, omnipresent Great Other
Orange (rational, worldcentric, pragmatic, modern)	Atoms, electrons, protons, periodic table of the 100+ elements, skyscrapers, rockets, worldcentric compassion, universal moral ideals, television, radio, 3rd-person perspective, square root of a negative one, airplanes, automobiles, spirit as Great Designer and/or Ground of Being.
Green (pluralistic, multicultural, postmodern.	Pluralistic systems, the Internet and World Wide Web, 4th-person perspective, values commons, imaginary numbers, hypercars, spirit as deep ecology and human harmony
Turquoise (planetary mind, late vision-logic, systemic)	Gaian collective, strings, differential/integral calculus, n dimensional hyperspace, 5th-person-perspective, quantum potential energy sources, spirit as planetary holarchy.
Indigo (lucent mind, transplanetary, illumined mind)	Luminous clarity and compassion of 6th-person-perspective, trans-planetary social ideals, mega-tribes, truth/goodness/ beautyself-seen in global gestalts, spirit as infinite Light/Love.
Violet (meta-mind and overmind)	Overmind brilliant clarity, infinite love and compassion of 7-person perspectives and beyond, including all sentient beings from their perspectives, trans-dimensional social ideals, spirit as radical interiority and infinite holarchy

Figure 7. GigaGlossary

Source: Adapted with permission from Wilber (2006). Courtesy Integral Institute

This glossary—in addition to showing the phenomena found in various worldspaces—implies an idea that is central to the notion that the meaning of a statement is the means of its enactment. In order to see these phenomena, the perceiving subject must be able to follow the paradigms or injunctions that enact referents in these worldspaces. The knowledge communities working in

these worldspaces determine these injunctions. For example, in order to see the square root of negative one, the perceiving subjects needs to take up mathematical injunctions developed by trained mathematicians. If the injunction is not learned the phenomena will not be enacted. This point is absolutely critical and needs to be included in concept of kosmic address, as we will see.

Wilber outlines three ways in which we can talk about something in a 3<sup>rd</sup> person perspective.<sup>90</sup> We can say “what a thing *is like* (metaphoric, analogic or kataphatic); what a thing *is not* (negativa, apophatic); and what it *is* (assertic, ontic).” If we make an assertic statement about something—if we say, for example, an eco-system *is* a dynamic network of interconnected “its” or Spirit *is* infinite love—we are making an ontological claim that something is true, that something exists. All statement of this type—especially ones like Spirit is infinite love, which concerns something that modernity and postmodernity condemns as metaphysics—must also give the kosmic address of both the perceiver and the perceived. In doing so, we are employing an integral epistemology—an integral way of knowing the world—which, through its post-metaphysical foundations, places the question of physical, mental, emotional and spiritual realities and all their associated referents on exactly the same epistemological footing. Thus, in the eyes of any epistemology—or any conception of science, for that matter—we can make the following ontic statements with equal validity:

- The Easter Bunny<sup>(2/L, 3p)</sup> is anthropomorphized rabbit that hides eggs for children
- Atoms<sup>(5/L, 3p)</sup> are the building blocks of molecules
- Our global eco-systems<sup>(8/L, 3p)</sup> are being destroyed by pollution and, when I consider that, my Gaia consciousness<sup>(8/L, 1p)</sup> is profoundly hurt.
- My first direct experience of Spirit as ever-present love<sup>(9/L, 1p)</sup> occurred when I was saved from a car wreck by a stranger motivated by that love as Spirit-in-action<sup>(9/L, 2p)</sup>. This was evidence that Spirit is a universal force of love that connects all beings<sup>(9/L, 3p)</sup>.

Once again, the nature of an Integral epistemology that provides kosmic addresses for any ontic statement makes the existence of any of the above referents no more difficult to prove than the existence of any other. The existence of God is no more difficult to prove than that of a rock. That is, as long as we take up the injunctions required to enact the particular referents in question. This brings us back to the meaning of any statement being the means of its enactment.

Wilber describes all valid knowledge as consisting of three strands: (1) An injunction, (2) an experience of the enacted phenomena and (3) a communal confirmation/rejection by a community of the adequately trained.<sup>91</sup> Once again, if you make a positive, ontic statement that implies that something exists, in addition to specifying the kosmic address of the subject and object, you must also specify the injunction that the subject must take up so that they can enact the object. Wilber provides the following in explanation:

...if I want to know if it is raining outside, then I must walk over to the window, pull back the drapes, and look. If I want to know what Susan felt like when she had her first experience of universal love, I must as a perceiving subject develop to at least an orange altitude in both the cognitive line and the moral line. If I want to know why the Schroedinger wave equation collapses when a photon hits a neutron, then I must develop to at least a turquoise level in the cognitive line, then study quantum physics and mathematics for a decade or two, and then look.<sup>92</sup>

Similarly, if I want to know if there is a referent for Godhead<sup>(10/L, 1p)</sup>, Wilber describes one possible route:

...learn to be able to keep my mind focused unwaveringly on an object for at least 30 minutes. (The longest the average adult can focus on an object in an unbroken fashion is for less than one minute.) Once I can do that, which usually takes daily practice for about 3 years, then I need to look in an unbroken fashion at the nature of phenomenal reality as it arises moment to moment and see if there is, as directly seen or cognized in my own consciousness, anything that appears to be an empty ground to all of them. And then I need to compare this reality with my ordinary state of consciousness and decide which seems more real.<sup>93</sup>

Next, you open your experience to confirmation or rejection by a community of people who are qualified to make such a judgment because they are also trained in this form of injunction and you will most likely find that Spirit is an infinite Emptiness<sup>(10/L, 1p)</sup>, out of which all form arises. The meaning of any statement is the injunction for enacting the worldspace in which the referent exists. If an injunction is not specified, the referent cannot be enacted and meaning cannot be had. To avoid meaningless metaphysics, all ontic statements must be replaced with statements that specify Kosmic address and injunctions. Without that, an Integral epistemology will not be

realized. Without that, this is what we have: “No injunction, no enactment, no meaning, no reality.”

## **Conclusion**

At the heart of an Integral epistemology grounded in AQAL post-metaphysics, we find a framework that guides all science—human, social, and physical—towards a way of knowing the world that embraces premodern, modern and postmodern truths. An Integral epistemology that resituates metaphysical, positivist and postpositivist conceptions of science, knowledge and the search for truth in a framework of perspectives and methodologies that destroys their claims to absoluteness, unhinges metaphysical knowledge justifications, and offers a way of locating the existence of anything in the kosmos. No longer can the enduring truths of the great metaphysical traditions be jettisoned as meaningless. No longer is the meaning of a statement the means of its verification as positivism led us to believe. No longer is the meaning of a statement the means of its construction as postpositivism held. From this point forward, the search for truth in all realms must be guided by an Integral epistemology that holds the meaning of a statement to be the injunction of its enactment. This search must adhere to a post-metaphysics that replaces all ontic and assertic statements with ones that, at a minimum, indicate the altitude and quadrant of the subject, or perceiver, the altitude and quadrivium of the object, or that which is perceived, as well as the injunction that the subject must undertake to enact the worldspace of the object. All ontic statements must be replaced with the language of cosmic address and injunctive specification, or we are simply left with: no enactment, no meaning, no reality.

Without an Integral epistemology, the human quest for a greater understanding of the world around us is doomed to be, at best, terribly partial. At its worst, this understanding—derived from fragmented knowledge based on partial truths—will continue to be the foundation upon which well-meaning human action is both judged and based. In a world ridden with poverty, genocide, environmental degradation and political injustice it is essential that thought leaders, scientists, spiritual teachers, and politicians base their way of knowing the world on the most inclusive framework available at this point in evolution’s unfolding. Without a bold move towards an Integral epistemology all action will be forever a step away from the actualization of even the greatest of human intentions to bring forth—with compassion and valor—love in the world.

## Endnotes

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- <sup>1</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, pp. 11-12
- <sup>2</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, pp. 10-11
- <sup>3</sup> Plato, *Plato's theaetetus: Part I of the being of the beautiful*, 1984
- <sup>4</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, p. 11
- <sup>5</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, p. 11
- <sup>6</sup> Chapman, *Sensations and phenomenology*, 1966, p. 54
- <sup>7</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, p. 13
- <sup>8</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, p. xi
- <sup>9</sup> For a complete discussion of Integral methodological pluralism consult: Wilber, *Kosmic karma and creativity, excerpt A: An integral age at the leading edge*, 2003a, ; Wilber, *Kosmic karma and creativity, excerpt B: The many ways we touch – 3 principles for an integral approach*, 2003b, unpag
- <sup>10</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006, unpag
- <sup>11</sup> Kuhn, *The essential tension: Selected studies in the scientific tradition and change*, 1977; Losee, *A historical introduction to the philosophy of science*, 1980
- <sup>12</sup> Kuhn, *The essential tension: Selected studies in the scientific tradition and change*, 1977
- <sup>13</sup> Burt, *The metaphysical foundations of modern physical science*, 1954, pp. 207-302
- <sup>14</sup> Hobbes, *Leviathan*, 1962
- <sup>15</sup> Mandelbaum, *History, man, and reason: A study in nineteenth-century thought*, 1971
- <sup>16</sup> Bentz, *Mindful inquiry in social research*, 1998, pp. 178-179 & 184-185
- <sup>17</sup> Bentz, *Mindful inquiry in social research*, 1998, pp. 178-179
- <sup>18</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, p. 17
- <sup>19</sup> Bentz, *Mindful inquiry in social research*, 1998, p. 184
- <sup>20</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, p. 18
- <sup>21</sup> Mach, *Contributions to the analysis of the sensations*, 1890
- <sup>22</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, p. 18
- <sup>23</sup> Bentz, *Mindful inquiry in social research*, 1998, pp. 180-181
- <sup>24</sup> Ermarth, *Wilhelm dilthey: The critique of historical reason*, 1978
- <sup>25</sup> Bentz, *Mindful inquiry in social research*, 1998, pp. 181-183
- <sup>26</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, p. 22
- <sup>27</sup> Henrik von Wright, *Explanation and understanding*, 1971, p. 5
- <sup>28</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, p. 35
- <sup>29</sup> Spiegelberg, *The phenomenological movement: A historical introduction*, 1976, pp. 35-36 & 42-43
- <sup>30</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, p. 43
- <sup>31</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, pp. 43-47
- <sup>32</sup> Weber, *The theory of social and economic organization*, 1964
- <sup>33</sup> James, *Essays in radical empiricism*, 1940
- <sup>34</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, pp. 50-51
- <sup>35</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, pp 62-64
- <sup>36</sup> Bentz, *Mindful inquiry in social research*, 1998, pp. 177-180
- <sup>37</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, pp. 64-65
- <sup>38</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, pp. 66-67
- <sup>39</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, p. 72
- <sup>40</sup> Hempel, "The function of general laws in history," 1942, reprinted in Gadiner, *Theories of history*, 1959, pp. 349-350
- <sup>41</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, p. 90
- <sup>42</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, pp. 94-103
- <sup>43</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, pp. 103-114
- <sup>44</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, pp. 119-120
- <sup>45</sup> Polkinghome, *Methodology for the human sciences: Systems of inquiry*, 1983, p. 133
- <sup>46</sup> Wilber, *A Theory of everything: An integral vision for business, politics, science and spirituality*, 2000, By "Kosmos," Wilber is referencing the traditional term introduced by the Pythagoreans which originally meant the

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“patterned nature or process of all domains of existence, from matter to math to theos, and not merely the physical universe.” [Wilber, *Sex, ecology, spirituality: The spirit of evolution*, 1996, p. 38] Used in this manner, Kosmos refers to both the exterior physical universe—which is commonly called the cosmos—plus the entire interior realms of consciousness and culture

<sup>47</sup> Wilber, *Kosmic karma and creativity, excerpt D: The look of a feeling – the importance of post/structuralism*, 2003d, unpag

<sup>48</sup> When “we” is used as second-person perspective what is being referred to is technically first-person plural. “The rationale is typically something to the effect of: “We” is technically first-person plural, and “you” is technically second-person. However, Integral Theory makes the distinction that often times, when people are using the pronoun “you” they are interacting with other people from a third-person perspective, treating them effectively as if they were an “it,” or an object. Thus, most times when “you” is used, a third-person perspective is being inhabited by the speaker (the “I,” or first-person). When any “I” and “you” have a chance to reach a mutual, or shared understanding, then the “you” is transformed from an “it,” or a third-person object, into an actual second-person with whom the “I” can reach a shared understanding. That shared, or mutual understanding is what we call a “we,” or a circle of “we,” or the LL quadrant. That “we” is composed of at least one first-person and one second-person, and thus we often refer to the “we” quadrant as the second-person perspective—the perspective of shared understanding between a first-person and a second-person (though a “we” is often comprised of many more members than just two.)”

[Jackson, *Integral theory key sheets: Essential points for the five elements of the AQAL model*, unpublished]

<sup>49</sup> Wilber, *A brief history of everything*, 1996, pp. 69-83

<sup>50</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006, unpag

<sup>51</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006, unpag

<sup>52</sup> Esbjörn-Hargens, *Integral ecology: A post-metaphysical approach to environmental phenomena*, 2006, unpag

<sup>53</sup> Wilber, *Kosmic karma and creativity, excerpt C: The ways we are in this together – Intersubjectivity and interobjectivity*, 2003c, unpag

<sup>54</sup> Carpra, *The web of life: A new scientific understanding of living systems.*, 1996, ; Carpra, *The hidden connections: Integrating the biological, cognitive, and social dimensions of life into a science of sustainability*, 2002

<sup>55</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006, unpag

<sup>56</sup> Laszlo, *The systems view of the world: The natural philosophy of the new developments in the sciences*, 1972

<sup>57</sup> Wilber, *Kosmic karma and creativity, excerpt C: The ways we are in this together – Intersubjectivity and interobjectivity*, 2003c

<sup>58</sup> Luhmann, *Social Systems*, 1990

<sup>59</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006, unpag

<sup>60</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006, unpag

<sup>61</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006, unpag

<sup>62</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006, unpag

<sup>63</sup> Wilber, *Sex, ecology, spirituality: The spirit of evolution*, 2000a, ; Wilber, *Integral psychology: Consciousness, spirit, psychology, therapy*, 2000c

<sup>64</sup> Wilber, *Integral psychology: Consciousness, spirit, psychology, therapy*, 2000c, ; Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006, unpag

<sup>65</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006, unpag

<sup>66</sup> Wilber, *Integral psychology: Consciousness, spirit, psychology, therapy*, 2000c, pp. 158-173

<sup>67</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006, unpag

<sup>68</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world*, 2006, unpag

<sup>69</sup> A term used by Alfred North Whitehead to describe the process of whereby the subject of this moment becomes the object of the subject of the next moment. This is the basis for a type of causality exerted by the past on the present. In addition to prehending each previous moment, every new moment adds its own moment of creative novelty. See Wilber, *Kosmic karma and creativity, excerpt A: An integral age at the leading edge*, 2003a, unpag

<sup>70</sup> Wilber, *Kosmic karma and creativity, excerpt D: The look of a feeling – the importance of post/structuralism.*, 2003d, unpag

<sup>71</sup> Wilber, *Kosmic karma and creativity, excerpt D: The look of a feeling – the importance of post/structuralism*, 2003d, unpag

<sup>72</sup> For a full treatment of the nature of involutory givens and what Integral Post-Metaphysics postulates as a timeless give please see Wilber, *Kosmic karma and creativity, excerpt A: An integral age at the leading edge*, 2003a, note 26, “On the Nature of Involuntary Givens”

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- <sup>73</sup> Wilber, *Kosmic karma and creativity, excerpt A: An integral age at the leading edge, 2003a*, note 26, “On the Nature of Involutionary Givens”
- <sup>74</sup> Wilber, *Kosmic karma and creativity, excerpt A: An integral age at the leading edge, 2003a*, unpag
- <sup>75</sup> For a graphical representation of the correlations in UL and UR development see figure 4 in the Introduction to Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world, 2006*, unpag
- <sup>76</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world, 2006*, unpag
- <sup>77</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world, 2006*, unpag
- <sup>78</sup> Whitehead, *Process and reality, 1978*
- <sup>79</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world, 2006*, unpag
- <sup>80</sup> In semiotics, words are signs that have two components, signifiers and signifieds. The signifier is the actual printed word or spoken sound. The signified is what comes to mind when you hear or see the word. The actual thing in the world is called the referent. For example, the word or sound “Bark” is a signifier. The signified depends on the context in which the signifier is used (as well as the AQAL matrix operative for the person doing the hearing). The typical signified of “bark” when it is used in “the bark of a dog” is the mental idea of the noise a dog makes. When it is used in “the bark of a tree,” the signified is the idea of the rough outer covering of a tree. The actual referent changes as well. In the first instance, the referent is the sound a dog makes and in the latter, it is the bark on the tree outside my window.
- <sup>81</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world, 2006*, unpag
- <sup>82</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world, 2006*, unpag
- <sup>83</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world, 2006*, unpag
- <sup>84</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world, 2006*, unpag
- <sup>85</sup> Please note that a truly complete Kosmic Address would include component that represent the full AQAL aspects (Quadrant, level, line, state and type) of any occasion. Furthermore, it would also utilize that 8 perspectives instead of only the quadrants. However, to aid the ease of explanation, this discussion utilizes the minimum (quadrants and levels) that we need for any Kosmic Address
- <sup>86</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world, 2006*, unpag
- <sup>87</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world, 2006*, unpag
- <sup>88</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world, 2006*, unpag
- <sup>89</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world, 2006*, unpag
- <sup>90</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world, 2006*, unpag
- <sup>91</sup> Wilber, *Eye to eye: the quest for the new paradigm, 1983*, pp. 31-35
- <sup>92</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world, 2006*, unpag
- <sup>93</sup> Wilber, *Integral spirituality: A startling new role for religion in the modern and postmodern world, 2006*, unpag
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