Toward a Metaphysical Empirical Psychology

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Book Chapter for

Re-Envisioning Theoretical Psychology

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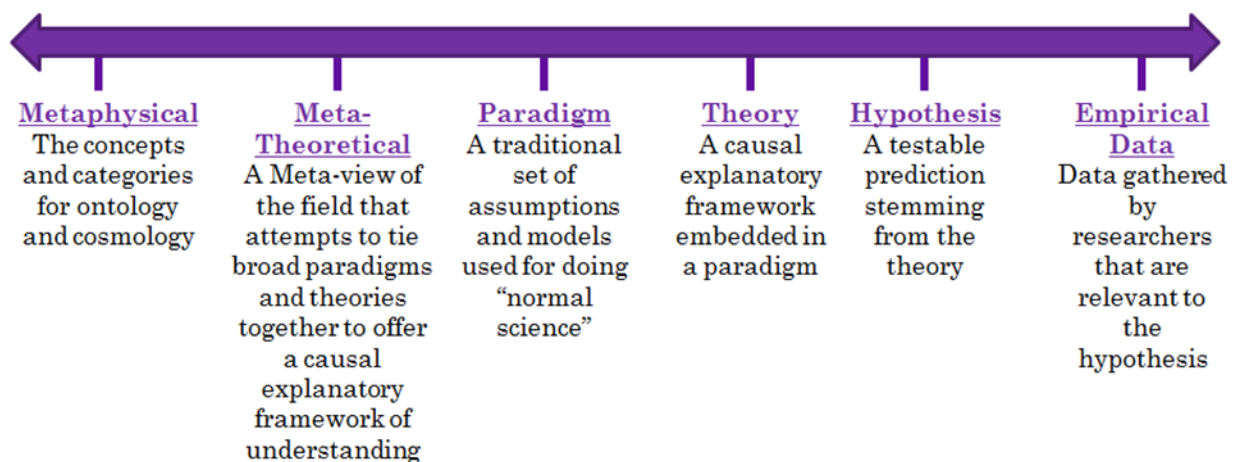
Toward a Metaphysical Empirical Psychology

Take a moment and reflect on the following questions: *1) What is the world made of?; 2) Why is world the way it is?; 3) What is the place of humans in the world?* In the language game of the current chapter, the answers that emerge in response to these kinds of questions are drawn from what Pepper (1942) called one's "world hypotheses." Here I refer to is as one's "metaphysical system." The goal of this chapter is to show that the metaphysical system is as crucial to the enterprise of psychology as empirical investigations—they simply occupy different ends of the spectrum of knowledge. Correspondingly, my re-envisioning the future vision for theoretical and philosophical psychology calls for the analysis of the metaphysical systems that are operative, although often implicit in the field. In particular, this chapter makes the case that mainstream psychology move from its current exaggerated emphasis on empiricism to a "Metaphysical Empirical" approach. Such a Metaphysical Empirical Psychology would be one that attends the entire dimension of analysis that stretches from specific empirical findings all the way to the concepts and categories that define and describe the phenomena of interest.

Defining the Metaphysical and Empirical Domains of Analysis

The Merriam-Webster on line dictionary (https://www.merriam-webster.com/dictionary/; retrieved April 23, 2018) defines *metaphysic*s as: 1) a division of philosophy that is concerned with the fundamental nature of reality and being that includes ontology, cosmology, and epistemology; and 2) abstract philosophical studies, including what is outside of objective experience. The same dictionary defines *empirical* as: 1) originating in or based on observation or experience; 2) relying on experience or observation alone without due regard for system and theory; and 3) capable of being verified or disproved by observation or experiment. Mainstream psychology has, by and large, completely neglected metaphysics, and it has adopted a heavy

emphasis on the second and third meanings of the word empirical. That is, academic

psychologists generally eschew philosophy and big picture thinking and subjective observations

(the first definition of empirical), and instead focus on data gathering and experimentation. The

vision of this chapter is that the future of psychology will see the need for considering the entire

dimension that stretches from metaphysics to empirical data collection (Figure 1). This means

psychologist would the two ends of the continuum as being in dialectical tension with one

another, such that a coherent psychology would consist of field in which the broad definitions of

the field key concepts and categories are both coherent and consistent across the field.

Figure 1. The Metaphysical to Empirical Dimension of Analysis.

Metaphysical	Meta-Theoretical	Paradigm	Theory	Hypothesis	Empirical Data
The concepts and categories for ontology and cosmology	A Meta-view of the field that attempts to tie broad paradigms and theories together to offer a causal explanatory framework of understanding	A traditional set of assumptions and models used for doing "normal science"	A causal explanatory framework embedded in a paradigm	A testable prediction stemming from the theory	Data gathered by researchers that are relevant to the hypothesis

Because the word metaphysics has a long and complicated history, spending some time

clarifying its meaning is necessary. The word is sometimes associated with New Age,

alternative, or mystical ways of thinking. In a related vein, the word can be used in a pejorative

sense to communicate things that are not very serious or things that are unknowable. For

example, if someone were to say, "Now you are just talking metaphysics," it is likely that the

speaker would mean the person was just talking nonsense or was engaged in pure speculation.

Using metaphysics in this way stems in large part from the emergence of modern scientific ways

of thinking, which emphasized the importance of empirical investigations over pure

philosophical inquiry (or speculation or unfounded claims). Although understandable, it is unfortunate that metaphysics came to be ignored by so many because, in its formal sense, metaphysics refers to the most fundamental branch of philosophy.

Inside academic philosophical circles, metaphysics remains an important area of inquiry. Philosophers who work in metaphysics are generally concerned with deep questions about ontology. In this chapter, I will be emphasizing the concept of a "metaphysical system," which refers to the system of concepts and categories one is using to describe reality. As noted in the Merriam definition, metaphysics deals with the intersection of ontology, cosmology, and epistemology. A metaphysical system, then, is defined here as one's theory or version of reality, which includes: 1) the picture of the universe as a whole (cosmology); 2) claims about what is real, including the concepts and categories that one uses to map the world (ontology); and 3) one's knowledge systems about the world and what constitutes justifiable knowledge (epistemology).

Mainstream psychology generally does not deal with these big picture questions; the field is instead generally committed to a narrower empiricism focused on variables of interest that can be measured. This focus is apparent as soon as one enters the discipline. In a highly popular introductory textbook, David Myers and Nathan DeWall define psychology as "the scientific study of behavior and mental processes," (Myers & DeWall, 2016, p. 7) which is a standard, mainstream definition. The authors proceed to define behavior as "anything an organism does— any action we can observe and record," and mental processes as "the internal, subjective experiences we infer from behavior—sensations, perceptions, dreams, thoughts, beliefs and feelings." It is worth noting here that the textbook begins with definitions, alone with other assumptions. This is important because, in the current proposal, one's a priori definitions are

derived from one's metaphysical system; that is, the concepts and categories that one uses to carve up reality.

Yet the textbook authors do not explore their definitions, nor the model of the world from which they were derived. Instead, the focus moves quickly to the primary focus of mainstream psychology, and states "the key word in psychology's definition is science," which "is less a set of findings than a way of asking and answering questions," (Myers & DeWall, 2016, p. 7) by which they means that psychologists approach their subject matter through the lens and methods of empiricism. The authors central hope is that readers learn "how psychologists play their game," by which they mean the students will learn how psychological researchers engage in studies, measure constructs, and test hypotheses to evaluate conflicting opinions and ideas about psychological subjects. Similar examples of this kind of perspective on psychology abound, and consistent with this emphasis, most academic psychologists have as their skill set the capacity to develop empirical research programs on specific research questions (i.e., questions that can be addressed by gathering data and conducting experiments or large-scale data analyses). In sum, in mainstream psychology the task is to think empirically and gather data on variables of interest. The goal of this chapter is to lay out why a complementary focus on the broader metaphysical system is necessary for psychology to reach its full potential.

Before proceeding, I need to avoid a strawman characterization of empirical psychology. It is, of course, the case that no one operates on empirical data alone. Rather, empirical data are always interpreted in relationship to some model or theory, which in turn is embedded in a larger paradigm or shared understanding of the way the world works. Common psychological paradigms include social cognitive, behavioral, psychodynamic, humanistic, evolutionary and cultural or indigenous approaches. In short, we need to acknowledge that mainstream psychology

is already operating on more than just empirical data, and that there are many conceptual frameworks and models that have been offered as maps for organizing data. The following table captures the levels of analysis in mainstream empirical psychology.

Figure 2. Mainstream psychology ranges from paradigms to empirical data.
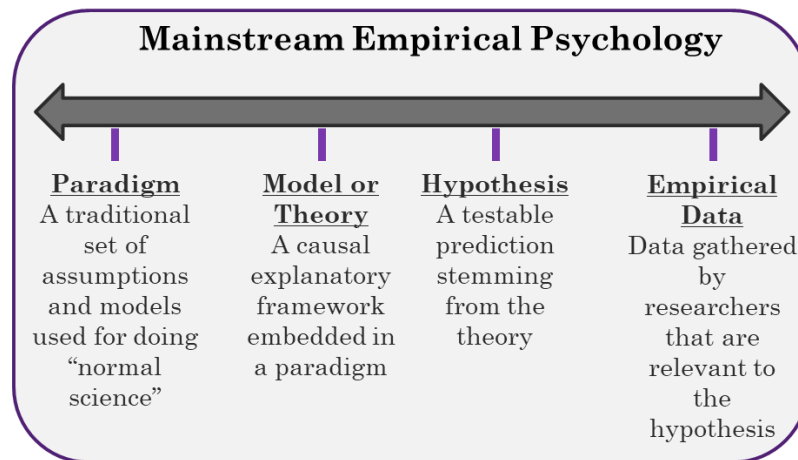
Both mainstream and theoretical psychologists are aware of this layering. In their proposal for formally defining the sub-discipline of theoretical psychology, Slife and Williams (1997) acknowledge that "theories" have always been a part of the field. Theories have ranged in scope from specific models that connect variables (e.g., social support relates to human happiness) to grand theorizing by the field's luminaries, such as William James, Sigmund Freud and John Watson, many of whom were associated with the founding of particular paradigms. However, consistent with the current critique, these authors point out that broad theorizing has largely diminished, and the primary focus and activity of the discipline has narrowed to models tied directly to empirical data. They write (p. 118):

> [T]here has been a general disaffection with theory in psychology. The discipline has moved away from grand, subsuming theories in the traditional sense and moved toward models, techniques, and micro theories in the more modern sense. Most experimentally oriented psychologists, for example, focus on models

(Hergenhahn & Olson, 1992; Sahakian, 1970). Models are typically delimited explanations that involve only a circumscribed field of endeavor, such as visual memory or neurotransmitters. These models are rarely expanded to full-blown theories. And yet, as shown elsewhere (Slife & Williams, 1995), such models rest on a host of broader theoretical assumptions that are often never recognized and almost never examined.

Slife and Williams (1997) proceeded to argue that mainstream psychology has evolved away from emphasizing theorizing and toward the positivist philosophy of Augusta Comte, who had a vision of science that moved from theory into statements and claims directly supported by empirical evidence. However, being good theoretical psychologists, Slife and Williams point out that positivism is itself a philosophy and conceptual position that is not empirically supported per se, but rather supported by argument and assumptions, many of which are highly dubious. These authors proceed to make the case for why we need theoretical psychologists who can examine the underlining assumptions of the paradigms and methodologies that drive the discipline. They buttress that argument by pointing out the highly fragmented state of psychological knowledge and the many competing paradigms and theories that are overlapping but also contradictory, resulting in a rather chaotic state of knowledge. Such conceptual confusion, they argue, cannot be solved via empirical research alone. As such, in addition to empirical researchers, the field also needs individuals who can engage in a meta-theoretical perspective, and who can evaluate the assumptions of various theories and serve as a consultant and commentator at this higher, and more abstract or philosophical level of analysis.

The current proposal for re-envisioning theoretical and philosophical psychology is to extend the picture offered by Slife and Williams (1997) in a constructive manner. Slife and

Williams note that much work in theoretical psychology has offered critical philosophical analyses of the current field or pointed toward alternative directions to the mainstream. However, they also emphasized that the role of the theoretical psychologist is to view the field as a whole, and to explore new ways of conceiving that whole. It is here that the current proposal advances a new vision for the field. Specifically, by emphasizing the left side of the continuum, the call is for theoretical and philosophical psychologists to offer both critical and constructive analyses on the metaphysical and philosophical systems, as well as explore meta-theoretical perspectives that examine the paradigms and their interrelations.

Figure 3. Theoretical and philosophical psychology focuses on the left side of the continuum.
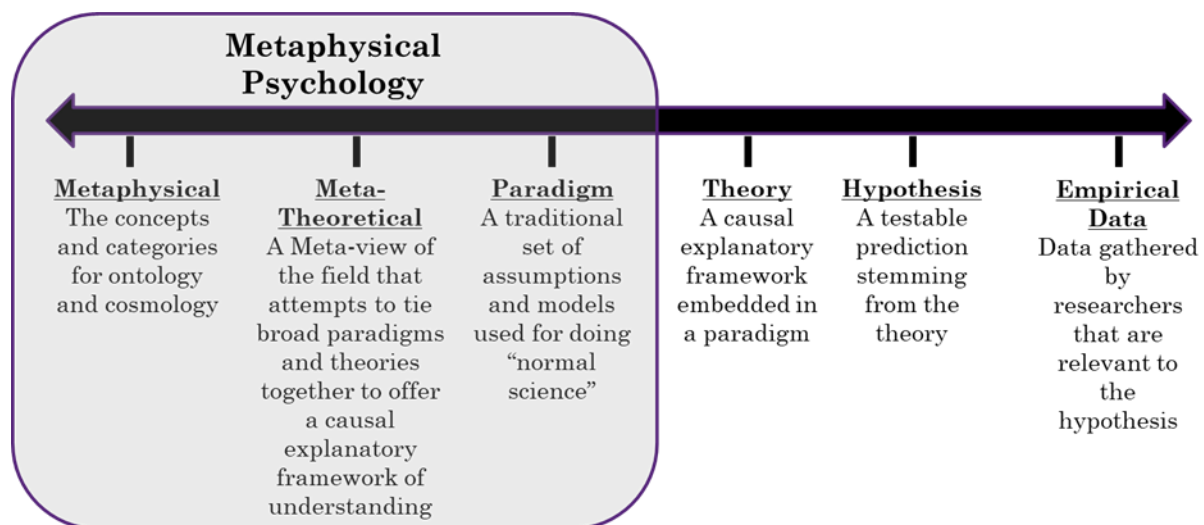
The current chapter thus advocates for a call for theoretical and philosophical psychology to stake out this aspect of the field and to embolden such psychologists to insist that attention to this aspect of the continuum is crucial for the field as a science. In addition to this call, this chapter explains what a proposal for a Metaphysical Empirical Psychology can actually look like (Henriques, 2011). However, prior to articulating some of the features of that system, we need to understand first why psychology has been plagued by metaphysical problems since its inception.

Understanding Psychology's Metaphysical Problems

In *How to Think Straight About Psychology*, Keith Stanovich (2012) notes that many students are "disappointed because psychology contains not one grand theory but many different theories, each covering a limited aspect of behavior" (p. 4). These students have a sense regarding the importance of coherently organized knowledge, and we should heed their disappointment. Empathizing with these students begins to allow for the recognition of the "problem of psychology" (Henriques, 2008), the fact that the field is strikingly hard to define and yet it connects to many different branches of learning. The problem of psychology is illuminated by considering the story of Sigmund Koch. Koch was charged by the American Psychological Association to conduct a "study of the science" in the late 1950s, with the goal of clearly defining the discipline. After years of study, he concluded that the field of psychology was not a conceptually coherent entity and, more than that, he concluded *it could not be one*. Instead, his conclusion was the thing we called psychology was really just a loosely overlapping "confederation of sub-disciplines" that, more often than not, were concerned with different subject matters from different perspectives and advocated different methods of investigation (Koch, 1993).

The nature of psychology's conceptual problems become clearer when we look at the history of psychology and see that it was founded by pioneers who focused on very different subject matters. The birth of the discipline is often formally dated to 1879, which corresponds to the opening of the first scientific laboratory for the empirical investigation of psychological phenomena by Wilhelm Wundt in Germany. Wundt defined psychology as the science of human consciousness, and he tried to study the structure of human perceptual experiences in the lab. The American William James, in contrast, thought of psychology as the study of mental life and mental functions, and the focus for him was on how people (and other animals) functionally

adapted to their environment. Sigmund Freud focused on "unconscious" mental forces as the key drivers of human behavior in general and psychopathology in particular. In contrast to each of these positions, John B. Watson proclaimed strongly that concepts like consciousness or unconsciousness were not scientifically viable and that the subject matter of psychology had to be "behavior" (which essentially includes all animal actions) if it was to be a real natural science like physics. These fundamentally different formulations begin to get at the heart of the problem. The debates about the essential subject matter of psychology show that we are not just talking about differences of opinion at the level of research, findings or even theory (i.e., causal explanations for why things happen). Rather, the problem goes deeper than that. It is fundamentally about the subject matter and the concepts and categories that one uses to talk about it. That is what makes it a "metaphysical" problem.

Why did psychology have such a problem with its subject matter and the concepts and categories that scholars used to describe it? The reason has everything to do with the worldviews scholars had about the world and consciousness, animal, human persons, and the scientific investigations of such phenomena when the discipline first emerged. Psychology was officially born as a discipline in the second half of the 19th Century, during the flowering of the Enlightenment. The Enlightenment thinkers valued the power of reason, and leading intellectuals argued that the natural world could be understood using logic, math, and the empirical method. Although the Enlightenment is formally dated to begin 1715, the roots of it date even back further, and the work of early scientists like Galileo and Descartes laid key parts of the foundation. Some argue that the Enlightenment should begin with the publication of Isaac Newton's "Principia" (Mathematical Principles of Natural Philosophy) in 1687, which is arguably the single most important scientific publication in history. What did Newton do in

Principia? He developed a mathematical framework that described matter in motion (sometimes called "classical mechanics"). He did this so well and so completely that his mathematical theory of matter in motion that was the foundation of physical science for almost 225 years, up until the development of modern physics that occurred in the beginning part of the 20th Century.

Newtonian physics was so powerful that it began to give rise to a completely new worldview. Prior to Newton's work, virtually every prominent Western intellectual held a Christian worldview. However, although Newton himself was deeply Christian, many scholars who emerged later during the Enlightenment began to adopt a purely "physical" worldview grounded in Newtonian physics. Thus, at the time of the birth of psychology there were two great metaphysical systems; the Christian view and the Physicalist view (Koon & Pickavance, 2014). The key metaphysical differences in these two worldviews can be seen in how they respond to these three questions: *1) What is the world made of?; 2) Why is world the way it is?; 3) What is the place of humans in the world?*

The Christian metaphysical worldview dominated Europe and the United States for centuries. It offers the following basic answers to these three questions:

1. The World consists of God and all that He made. Everything exists because of God and exists because God chose it to exist. God created both the material world of things and the spiritual world of the human soul and angels and other supernatural forces.

2. God has always existed and He has to exist because the world exists and the logic of the world exists because of God. In this sense, God exists in much the same way that $2 + 2 = 4$ exists; it is a logical consequence of the world as we find it.

Although God has to exist, all other things could have not existed if God chosen not to create them.

3.   Human Beings were created by God to love and serve him forever. He infused in them the power of the Spirit, which allows them to be connected to God, if they chose to embrace this calling. In the same way that the heart is designed to pump blood, human beings are meant to serve God and their lives are a testament to the extent to which they do so. The course of human history is nothing less than a record of the extent to which humans have chosen to do what they were made to do (i.e., love God and serve him or turn away from Him toward sin).

Although the Christian worldview was dominant for centuries, as the Age of the Enlightenment progressed, more and more intellectuals found the power of a Newtonian worldview of matter in motion to be sufficient to explain the world around them. The Enlightenment intellectual Pierre-Simon Laplace is an example of an advocate of the new *physicalist* worldview. He believed everything was completely determined by the laws of matter in motion. With this backdrop, we can now list how a 19th Century Physicalist worldview answers the three metaphysical questions:

1.   The World consists of matter in motion, and there is nothing but matter. Matter obeys strict laws and everything is determined by these laws.

2.   Matter has always existed and can never be created or destroyed, only its form can change. Because matter has always existed, there is no higher reason for the World to be. It just is and always has been and always will be.

3.   Human beings are just complex arrangements of matter, and they exist because they just happen to be how matter is organized right now. Also, because all

material things obey strict laws, there is no such thing as free will or the freedom

to choose. Human lives have no meaning other than what they construct for

themselves, and when they die they simply become different arrangements of

matter.

There are deep and profound tensions between the Christian and Physicalist metaphysical

worldviews, and we can still see these views as competing in politics and other social domains

(Ambrosio & Lanzialo, 2013).

What does this have to do with psychology? These were the two dominant worldviews

that were operating when the science of psychology emerged. Thus, psychology gets started as a

discipline when its founders had to basically choose between either the first or second

worldview. Because it was defined as a science and the science of the time was the lawful,

physical determination of matter in motion, most psychological scientists adopted the second

worldview, that of a Newtonian physicalism (Gantt & Williams, 2014). Indeed, this foundational

framework perspective united views that were otherwise very much in competition. For example,

Sigmund Freud's psychoanalysis and John Watson's behaviorism were both reductive, atheistic

physicalist worldviews. Both assumed a classical, deterministic, matter-in-motion view of the

universe, and believed that, at bottom, people were *just* complicated arrangements of matter.

The problem is that neither of these two worldviews is adequate for modern psychology,

as they do not provide us a framework for the concepts and categories of human consciousness

and behavior that are up to the task of a modern science. The reason the Christian worldview is

not a good framework for scientific psychology is the same reason that has been given since the

Enlightenment. The concept of God does not work in the "language game" (or metaphysics) of

science (Henriques, 2005). The reductive physicalist worldview like that adopted by Laplace is

also not an adequate metaphysical worldview for the field of psychology. There are many reasons, and I will briefly list five major ones here.

One key change that has taken place in the foundations of science over the past 100 years is that the concept of energy now shares with matter "foundational status" in the sense that both energy and matter are fundamental concepts in physics. Indeed, most physicists now would likely view energy as the more fundamental, if they had to choose. This shift from matter to energy changes the central conception of the universe from an "object view" to a "process view" (Smolin, 2001), meaning that the long view of physics focuses on change processes over time as a fundamental frame with which to view the universe.

A second big change is that modern cosmology (i.e., the science of the universe as a whole) now offers a picture of the universe that has a beginning point of emergence called the Big Bang. This is the idea that the universe transformed from a singular point into an "energy-matter-space-time" grid about 13.8 billion years ago. This is important because it suggests that the universe has a beginning and a documentable history, which is a different model of cosmology than offered by Newton.

A third big change to the Newtonian matter-in-motion worldview is that complexity evolves and has increased over time via natural processes. Charles Darwin's theory of evolution was central to this realization, but now modern scholars talk even more broadly of a cosmic evolution (Chaisson, 2001), which refers to the emergence of complexity from the singular beginning point and growing to first include particles and forces, then stars and galaxies, then complex elements and planets, and finally increasingly complex forms of life. It is only by taking a broad, cosmic evolutionary view that we will be able to have a picture of the necessary concepts and categories that define human consciousness and behavior.

The fourth big change involves the developments in modern physics in the early portion of the 20th Century that blew up the strict deterministic picture that people like Laplace had of how matter (and energy) actually behaves. It is now largely understood that the fundamental character of the most basic elements of the universe (i.e., particles) has a random (or statistical) character. That is, there are unknowable random variations that play a role in what happens in the future, and this means that the kind of determinism that Laplace argued for is impossible.

The fifth big change involves the rise of information science that happened in the middle of the 20th Century, largely on the seminal contributions of Claude Shannon. The science of information has provided a new perspective on causation. Rather than causation being purely mechanistic in terms of exchange of forces, there are many systems whose causal properties are described in informational terms of inputs, computational processes, and outputs. Cells, brains, human language, computers and so forth must be understood in the language of information processing, which is not reducible to the language of Newtonian matter in motion.

Many other changes have occurred since the time of Newton, in both science and philosophy. Mainstream psychology, with its focus on empiricism, has not evolved in a way that can effectively address these issues. Instead, as a discipline, psychology has focused mostly on generating findings grounded in the empirical method rather than on building broad conceptual systems that can effectively frame our understanding and give rise to cumulative knowledge. However, a proposal to solve psychology's metaphysical problems has been offered, one that can assimilate and integrate its paradigms, and align empirical investigations into a coherent whole.

The Tree of Knowledge System:

An Example of a Metaphysical Empirical System for Psychology

The Tree of Knowledge System (Henriques, 2003; 2004; 2008; 2011; 2013) offers a new big picture view of the universe that sets the stage for the kind of proposal that can solve psychology's metaphysical problems. It simultaneously is consistent with how science has evolved since the time of Newton, and it offers a new depiction of cosmic evolution that clearly places the field of psychology within it. Specifically, the ToK System (Figure 4) functions as a map of the unfolding wave of cause and effect that has emerged since the Big Bang. The map delineates four dimensions of behavioral complexity.

Figure 4. The Tree of Knowledge System.
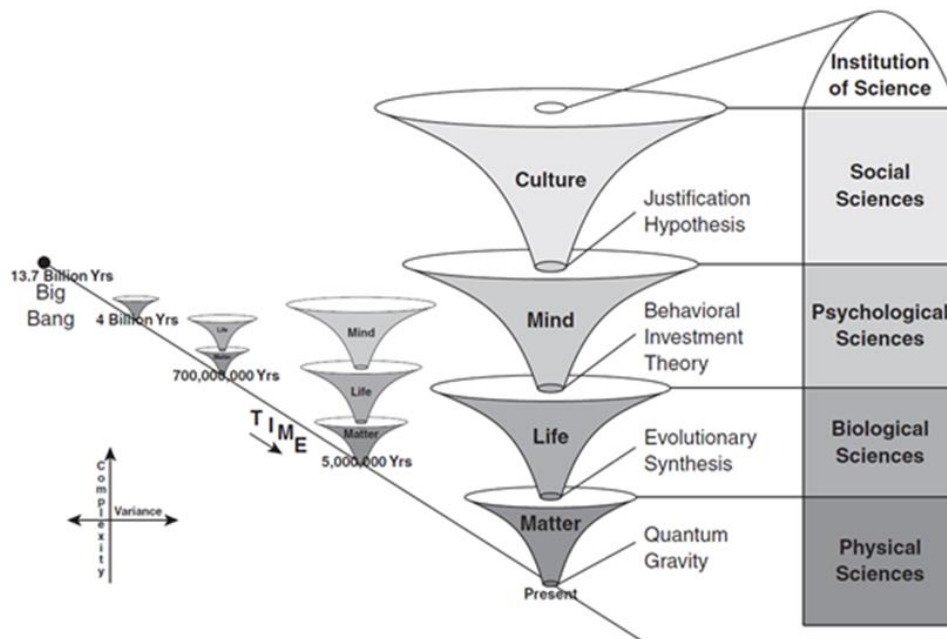
The first dimension, Matter, represents the emergence and behavior of material objects like particles, atoms, stars and planets. Life corresponds to the emergence and behavior of organisms like bacterial cells and plants. Mind, defined in the system as the set of mental behavior (see Henriques, 2004), represents the emergence and behavior of animals with a nervous system, and especially a brain. Culture represents the emergence and behavior of human persons. In sum, the ToK System depicts the universe as an unfolding wave of behavioral

complexity (i.e., a series of changes in object-field relationships), and pictures that complexity as

being fundamentally different dimensions that correspond to four different kinds of entities: 1)

material objects (e.g., hydrogen atoms); 2) organisms (e.g., bacterial cells); 3) animals (e.g.,

dogs) and 4) people. Thus, it is different from both the major metaphysical systems (Christianity

and physicalism) that were operative at the time of psychology's birth as a discipline. Instead,

the ToK System affords us a new, modern metaphysical system that is up to the task of mapping

psychology.

In their textbook introducing the subject, Koons and Pickavance (2014, p. 13) that state

that metaphysics is about understanding:

> the fundamental structure of reality as a whole. How do things fit together in the
> world? Plato describes this task of philosophy as "carving nature at the joints,"
> comparing metaphysics to a skillful and knowledgeable act of dissection. Here are
> four relations that seem to be among the fundamental relations of this worldly
> structure: the relation between things and their properties, between wholes and
> parts, between causes and effects, and things related to each other in space and in
> time.

This description of metaphysics reads as an excellent description of what the Tree of Knowledge

System attempts to accomplish. It provides a new way to carve nature at its joints and gives rise

to a new definitional picture regarding things and their properties, wholes and parts, causes and

effects, and the interrelationship between dimensions of behavioral complexity in space and

time. Consider the following answers to the three big questions: *1) What is the world is made

of?; 2) Why the world is the way it is?; 3) What is the place of the human in the world?*

1. The universe is an unfolding wave of Energy-Matter-Information that can be described in

   behavioral terms of objects, fields and change and exist that exist in both levels (parts,

   wholes, groups) and in four different dimensions of complexity, Matter, Life, Mind and

   Culture. These are separable dimensions of complexity because the behaviors that take

place at the levels above Matter are mediated by systems of information processing; specifically, genetic (Life), neuronal (Mind) and linguistic (Culture) systems.

2. The universe came into being approximately 13.8 billion years ago. There was a "moment of creation" in which a chain reaction in a "pure energy singularity" that created a massive inflation and gave rise to the four fundamental forces (i.e., electromagnetic, strong, weak and gravity) and the elementary particles (e.g., bosons, quarks, leptons). These forces and particles formed into atoms, stars and galaxies. Because of differential concentrations of energy and matter, there has been a flow of energy across various sections of the universe, and this energy flow has resulted in the emergence of different forms of complexity. Energy flow on the surface of planet earth resulted in the emergence of self-organizing, self-replicating systems that we call life.

3. People exist on the fourth dimension of complexity. Human beings are a kind of primate, and thus are mental creatures that exhibit complicated actions and have experiential consciousness. Unlike other primates, humans then developed full, open language capacities, which resulted in them exhibiting qualitatively unique behavior patterns and having unique capacities for self-reflective knowledge and for generating and sharing explicit knowledge about the world. That process turned our primate ancestors into modern people who are deliberative actors who can justify their actions on the social stage. Processes of justification, coupled with agriculture and the rise of the nation state, gave rise to large-scale systems of justification and to modern peoples who are deliberative actors on a cultural stage. In addition, such patterns justification gave rise to modern knowledge systems like science.

A major point of the current chapter is that the ToK System provides a new tool for theoretical and philosophical psychologists. Specifically, it allows these psychologists to start with an enormously broad, scientifically consistent depiction of the relationship between Matter, Life, Mind and Culture, each defined as strongly emergent dimensions of behavioral complexity. The remainder of the chapter offers some summary regarding how the system addressed psychology's metaphysical and definitional problems and how it sets the stage for connecting across the major paradigms in psychotherapy.

Solving the Problem of Psychology

One of the most striking features of the field of psychology is that it has failed to be effectively defined. This is not simply a matter of inevitable fuzzy boundaries. Rather, scholars disagree about the fundamental nature of what psychology is about. Specifically, there are three major domains of contention, which are debates about whether or not psychology is primarily: (a) about minds or behaviors; (b) about animals in general, some animals but not others, or only humans; and (c) a natural science, a human science, or a profession focused on fostering psychological health. The ToK System affords a new meta-perspective on this issue, and the explicit definition of psychology that emerges from analyses derived from the ToK System is as follows (Henriques, 2011):

> *Psychology is the science of mental behavior and the human mind, and the professional application of such knowledge toward the greater good.*

Based on the map afforded by the ToK System, psychology should be divided into three broad domains (Henriques, 2004; Figure 5). The first domain is "basic psychology," a natural science discipline that has the behavior of animals in general as its subject matter. Animal behavior is characterized in the ToK System as ***mental behavior***, defined as the behavior of the

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animal-as-a-whole mediated by the nervous system. Such behaviors can be overt or covert. Overt mental behaviors are observable by others and take place between the animal and the environment. Hunting, mating, and defending a territory are exemplars of overt mental behaviors. Perceptions, feelings, imaginings, and even nonconscious cognitive processes are also considered mental behaviors; they simply take place within the animal and thus are covert. In slight contrast to 'Mind', which is the third dimension of behavioral complexity and consists of the entire set of mental behaviors), 'the mind' refers to the architecture of the neuro-information processing system, which includes the information instantiated within and processed by that system. In short, the ToK System affords scholars a new vocabulary for mind, experiential consciousness and animal behavior.

The second domain has human behavior at the individual level as its proper subject matter and includes an emphasis on the human mind and human self-consciousness. This division is necessary because the behavior of persons is fundamentally different from the behavior of animals in general and other primates in particular. Human persons are deliberative actors who have the capacity to self-consciously justify their actions on the social stage (Ossorio, 2006). This capacity for self-conscious justification changes the behavioral equation dramatically. Not only does it open up a wide variety of higher thought processes and reasoning capacities, but it also means human persons develop cultural systems of justification that coordinate human activity and evolve over time. Thus, Culture and human self-consciousness have transformed humans from primates into persons, and this must be taken into account. It is this fact that makes human science so different from the natural sciences. One of the major differences between these two domains can be seen by considering the problem of the double hermeneutic. According to Giddens (1987, p. 19), this refers to the fact that "the concepts and

theories invented by social scientists circulate in and out of the social world they are coined to analyze." In other words, the justifications generated by social scientists to explain some human behavioral phenomenon are digested by human actors with genuine causal consequences. The philosophical problem this creates becomes more apparent when one considers that the most successful descriptions of human behavior are precisely those that will receive the most attention. As such, one cannot have a comprehensive theory of human behavior and also expect that human behavior will remain unaffected by this very theory. Freud's theories, for example, changed people.

Figure 5. The three domains of psychology.
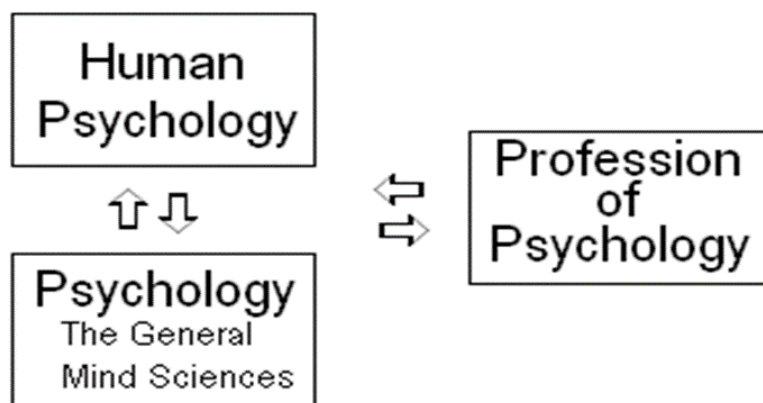
Finally, the ToK System points to their being a fundamental difference between the science and the profession because one has as its primary goal the description and explanation of animal and human mental behavior and the other has the improvement of human well-being (Henriques & Sternberg, 2004). The profession thus must include an explicit evaluative dimension of the good and how to move humans toward that (Henriques, Kleinman, & Asselin, 2014). In sum, at the institutional level, the current proposal argues for dividing psychology into the following three great branches: 1) basic psychology which focuses on mental behavior; 2) human psychology which focuses on the human mind and individual human behavior; and 3)

professional psychology which focuses on the professional application of psychological knowledge for the greater good.

In the current formulation, a metaphysical system refers to the system of concepts and categories that one uses the define foundational terms. In this view, the problem of psychology is diagnostic of the field having a profound need for a new metaphysical system. However, there are many other key terms that require definitional and conceptual analysis. Perhaps the most central terms are behavior, mind, consciousness, well-being, and personhood. The ToK System provides theoretical and philosophical psychologists new ways to work out definitions of these terms (Henriques, 2011; Henriques, Kleinman, & Asselin, 2014). In addition to metaphysical or conceptual analyses of key terms and their interrelations, the ToK System also serves as a framework that can address issues pertaining to meta-theory. As Anchin (2008, p. 814) put it:

> The bridges that can thus be erected between the natural sciences, social sciences, and humanities through the unifying metatheory of the ToK System and its foundations of ontological pluralism and epistemological dialecticism shimmer with heuristic potency, creating endless opportunities for the disciplines to integrate their vast pools of knowledge
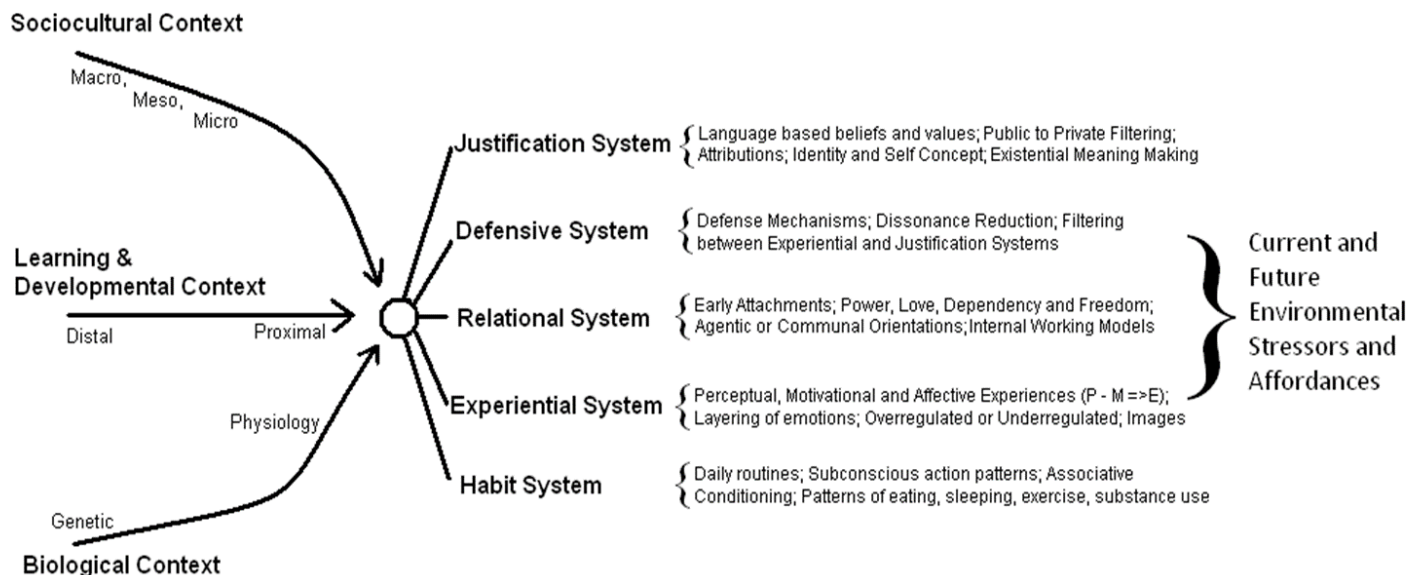
Addressing the Problem of Meta-Theoretical Integration:
The Example of Character Adaptation Systems Theory

Meta-theory is a theory about theories, and the unified theory of psychology is proposed as a system that can assimilate and integrate key ideas from the dominant paradigms into a coherent whole. The unified theory offers Behavioral Investment Theory as the foundational framework for understanding animal behavior, the Influence Matrix as an integrative framework

for human social motivation and emotion, and the Justification Hypothesis for linking language, human self-consciousness and culture together in a manner that gave rise to modern persons. These models and how they function to assimilate and integrate major proposals were reviewed in Henriques (2011). Here I review Character Adaptation Systems Theory, which is an outgrowth of the unified framework that has been developed to the bridge between personality and psychotherapy (Henriques, 2017). The framework is depicted in Figure 6. It depicts three contexts (the biophysical, learning and developmental, and socio-cultural) and five systems of adaptation. The five systems of character adaptation delineated by CAST emerged as a function of applying the ideas that made up the unified theory toward bridging modern personality theory and psychotherapy. Each of these systems is briefly reviewed below. Following this, the focus shifts to how they are connected to the key insights of the major paradigms in individual psychotherapy, thus setting the stage for a more comprehensive and holistic view of human adaptation that bridges modern personality theory with systems of individual psychotherapy. The point here is to demonstrate how an extension of the ToK System can be used to foster meta-theoretical integration of the paradigms.

Figure 6. Character Adaptation Systems Theory

Sociocultural Context
Macro,
Meso,
Micro

Learning & Developmental Context
Distal   Proximal

Physiology

Genetic
Biological Context

Justification System { Language based beliefs and values; Public to Private Filtering; Attributions; Identity and Self Concept; Existential Meaning Making

Defensive System { Defense Mechanisms; Dissonance Reduction; Filtering between Experiential and Justification Systems

Relational System { Early Attachments; Power, Love, Dependency and Freedom; Agentic or Communal Orientations; Internal Working Models

Experiential System { Perceptual, Motivational and Affective Experiences (P - M =>E); Layering of emotions; Overregulated or Underregulated; Images

Habit System { Daily routines; Subconscious action patterns; Associative Conditioning; Patterns of eating, sleeping, exercise, substance use

} Current and Future Environmental Stressors and Affordances

The Habit System

The first and most basic system of character adaptation is called the habit system, and it consists of sensori-motor patterns and reflexes, fixed action patterns, and procedural memories that can operate automatically and be produced without any conscious awareness. As reviewed by Duhigg (2012), habitual responses can usefully be divided up into three elements that form a loop. First there is a stimulus or cue which is followed by an enacted procedure or response, and finally there is a rewarding consequence. This is called the habit loop. One of the more remarkable features of the habit system is that virtually anything can become a habit, so long as the procedure has certain fixed elements in it. A classic example of how relatively complicated patterns can become habituated is found in learning to drive a car. New drivers often experience an overload of incoming information when first sitting behind the wheel. However, the sequence becomes automatized in the habit system over time, such that advanced drivers can enact all the above without any self-conscious thought. As this example suggests, virtually any procedural

sequence can become ingrained in the habit system so long as it is regularly repeated and elicits predictable consequences.
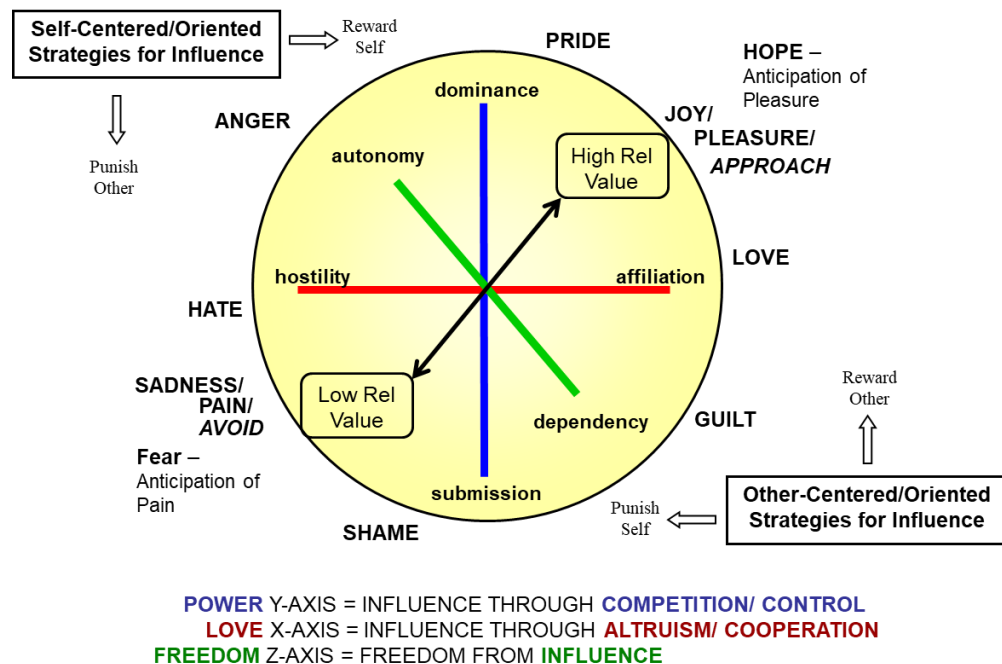
The Experiential System

Consistent with work in affective neuroscience (Panskepp, 1998), the experiential system corresponds to the nonverbal perceptions, motives and drives, and emotional feelings states that make up mental life. Examples of experiential phenomena include seeing red, being hungry, and feeling angry. The unified approach conceptualizes the experiential system as linking perceptions, motivations, and emotions via a computational control formulation whereby objects and events are categorized and made meaningful by perceptual processes (i.e., what is it, where is it) and are then referenced against motivational goal templates (i.e., drives to approach or avoid certain states) which then result in action orienting affective response tendencies (cf., La Cerra & Bingham, 2002) and finally behavioral strategies that either are rewarded or punished depending on their consequences. This formulation connects the experiencing mind to operant behavioral principles (Henriques, 2011).

The Relational System

The relational system is conceptualized as an extension of the experiential system that emerges both as mentation becomes more complicated (i.e., as animals evolve with increasing cortical functioning) and as animals become more social. The relational system refers to the social motivations and feelings states, along with intuitive internal working models and self-in-relation-to-other schema that guide social mammals in general and people in particular in their social exchanges and relationships. It is important to note, then, that the relational system as considered here is not dependent upon verbal processing, although, of course, in humans verbal processing can dramatically influence the operations of the relational system.

The unified approach offers The Influence Matrix (Henriques, 2011; Figure 7) as a workable map of the neuro-information processing architecture of the human relationship system. Consistent with a sociometer theory view of the root of self-esteem (Leary & Baumeister, 2000), the Matrix posits that the fundamental goal that drives social engagement is relational value, which can be defined as the extent to which an individual feels known and valued by important others. Relational value is represented on the Matrix as the central diagonal line, defined via the poles of high (i.e., being desired, admired, respected) and low (i.e., being rejected, ignored, belittled, or criticized) relational value. High relational value is theorized to have evolved as a sought after goal state (and the converse of rejection and contempt of important others to be avoided) because it serves as a proxy for the degree of social influence one has (defined as the capacity to influence others in accordance with one's interests, which is a crucial variable associated with survival and reproductive success).

Figure 7. The Influence Matrix

POWER Y-AXIS = INFLUENCE THROUGH **COMPETITION/ CONTROL**
LOVE X-AXIS = INFLUENCE THROUGH **ALTRUISM/ COOPERATION**
FREEDOM Z-AXIS = FREEDOM FROM **INFLUENCE**

The Matrix further posits that relational value and social influence are navigated along three relational process dimensions, identified as power (or competitive influence, defined by the poles of dominance and submission), love (or cooperative influence, defined by the poles of affiliation and hostility), and freedom (defined by the poles of autonomy and dependency). These relational process dimensions relate directly to certain emotional responses that are reliably elicited as a function of changes in relational value that emerge out of certain kinds of social exchanges. For example, pride is the emotional set that emerges when one successfully competes and achieves prestige relative to others, whereas shame emerges when one is defeated or shown to be relatively inferior in value or ability. Anger emerges when one's self-interests have been violated, and guilt emerges when one violates the interests of others in the process of social exchange.

The Justification System

The justification system is the fifth system of character adaptation; however, it is useful to explain this system and then proceed to describe the fourth system, the defensive system, as the shape of the latter is influenced by the organization of the former. The justification system is the seat of verbally mediated thought and symbolic reasoning. It is organized into language-based systems of beliefs and values that an individual uses to determine which actions and claims are legitimate and which are not, to give reasons for one's behavior, and ultimately to develop a meaningful worldview. Although individuals can learn how to engage in analytic reasoning via the justification system, the formulation provided by the unified approach is that the justification system is first and foremost a motivated reasoning system (Kunda, 1990), one that is guided by (although not necessarily dictated by) nonverbal drives, goals, and intuitive

frames, and is functionally organized as a reason giving system, rather than a purely analytical

reasoning system.

The Defensive System

The fourth system of character adaptation is the defensive system, and it refers to the

ways in which individuals manage their actions, feelings, and thoughts, and specifically the way

individual's shift the focus of conscious attention to maintain a state of psychic equilibrium in

times of threat or insecurity. The defensive system is the most diffuse of the character adaptation

systems; however, it can nevertheless be specified by examining how images, impulses,

cravings, and desires from the nonverbal systems (i.e., habit, experiential, relational) are

integrated (or not) with the individual's self-conscious justifications for being (for a recent

review of psychological defense consistent with the current formulation, see Hart, 2014).

We reviewed the justification system prior to delving into the defensive system because

the justification system seeks "equilibrium" such that the individual is in a "justified state of

being." A justified state of being is one that is secure and legitimate and thus individuals must

manage thoughts and situations that suggest otherwise (cf., Aronson, 2011). Although there are a

number of things that people are defended against, we can identify five broad domains,

including: 1) Death and the idea of death; 2) threats to one's worldview and meaning making

systems; 3) threats to one's relationships with others; 4) threats to self-esteem or self-concept;

and 5) Painful feelings or memories. For an example of how the defensive system works,

consider an adolescent who grows up in a household that is hostile toward homosexuality, but

starts to experience homosexual urges. Here the justification system (i.e., the explicit belief that

homosexuality is wrong) comes into conflict with the experiential system (i.e., sexual arousal in

response to homo-erotic material), and the individual will likely experience tension and perhaps

attempt to suppress or repress his feelings and perhaps even develop some strongly homophobic attitudes as a way to defend against these impulses.

Consistent with this formulation, Henriques (2003) argued that the JH provides an evolutionary account of Freud's fundamental observation regarding the nature of self-consciousness, which is that there are systematic reasons behind the reasons individual's give for their behavior. Specifically, Freud observed that as a function of social pressures and what was deemed socially acceptable, people would filter out (i.e., repress) certain drives, images, or emotions from self-conscious awareness and instead rationalize their actions via more socially acceptable pathways.

A central claim of CAST is that the five systems correspond to the key emphases and insights of the major paradigms in individual psychotherapy (Henriques & Stout, 2012). Specifically, there are four such major paradigms: Behavioral, Experiential/Humanistic, Psychodynamic/Interpersonal, and Cognitive. There are, of course, other approaches to psychotherapy, but they are generally either not anchored to a major psychological tradition, are integrative, or are focused on a different level of analysis, such as the biological (e.g., psychopharmacology) or social (e.g., family systems approaches). This section reviews the way the major systems of individual psychotherapy do line up with the five systems of character adaptation.

The Behavioral Tradition Aligns with the Habit System

As Zinbarg and Griffith (2008) note in their review of the key components of behavior theory and therapy, "The central defining feature of behavior therapy is that it involves the application of the laws of learning to the modification of problematic behavior" (p. 8). Consistent with the current framework for considering the habit system as a procedural system that operates

without much conscious thought, the general emphasis in behavior therapy is not on one's inner experience or, traditionally, even one's thought processes. Rather, the focus is on action and the environment and how the individual responds to stimuli (in associative conditioning) or is rewarded or punished for certain actions. These elements line up directly with Duhigg's (2012) popular formulation of the habit loop. Associative conditioning explores the relationship between the cue (stimulus) and routine (response), whereas operant conditioning explores the relationship between the routine and the consequence.

The Experiential Tradition Aligns with the Experiential System

In their review of experiential approaches to psychotherapy, Pos, Greenberg, and Elliot (2008) claimed that the central insight from the experiential perspective is that there are two ways of knowing: (a) Conceptual (knowledge by verbal, analytic description), and (b) Experiential (knowledge by direct experience), and that experiential therapies emphasize the importance of using the latter form of knowing when facilitating patient change (in contrast to cognitive therapies, which emphasize the former). These authors further highlight that Carl Rogers was central to experiential approaches because of his general emphasis on phenomenology and the utilization of deep empathy to access aspects of the "true self" that had been hidden, split off, or poorly integrated as a consequence of fear from judgmental others, or internalized self-judgment.

Emotion Focused Therapy (EFT; Greenberg, 2002) is a prominent form experiential therapy. Central to EFT is a focus on understanding the way emotions organize experiential consciousness and the process by which such emotional processing is generally adaptive or maladaptive. If an individual is attuned to those needs and arrives at those feeling states and integrates what the feeling is communicating into their higher self-consciousness, then one is in a

much better place to achieve mental and relational harmony. However, if the primary adaptive emotional response is blocked because it is deemed threatening or confusing or unacceptable and either ignored or replaced with a secondary feeling (e.g., rather than feeling hurt about being rejected, the individual becomes angry at the unfairness of it and says he does not care), then there will be significant disharmony and misalignment between the core needs and emotional expression. In EFT, therapists work to coach clients to understand how to connect to their primary adaptive feelings and work through unfinished emotional business, in which they historically were not able to process their primary feelings.

Modern Psychodynamic Approaches Align with the Relational and Defensive Systems

In his review of modern psychodynamic approaches, Magnavita (2008) stated that the key psychodynamic insights are that much of our motivation lies outside self-conscious awareness and that we experience conflict from opposing forces or parts of our intrapsychic make-up. He described Freud's structural and topographical models of consciousness, which attempt to characterize how and why some material is readily accessible to consciousness, whereas other material, especially that which is threatening to one's real or perceived status or identity, is often avoided, repressed or filtered out. As described above in CAST, the defensive system exists "in between" the subconscious experiential/relational systems and the self-conscious justification systems. Moreover, the catalogue of defense mechanisms delineated by psychodynamic theorists serves as an excellent starting point for understanding the structure and organization of the defensive system.

In addition to exploring how the psychodynamic view focuses on defenses, Magnavita (2008) also emphasized the "relational turn" that psychoanalysis has taken in the past several decades. For example, he pointed out that rather than the unconscious being seen as a repository

for unacceptable sexual and aggressive feelings, it is now considered primarily in terms of subconscious relational schema, scripts, expectations, and desires that people use to navigate the social world. In addition, attachment theory now provides a dominant lens through which early experiences shape social needs and motives. Such shifts in conceptualizing subconscious driving forces are highly congruent with the map of the relational system provided by the Influence Matrix.

*The Cognitive Approaches Align with the Justification System*

Kellogg and Young (2008) characterize cognitive approaches as *semantic therapies* because the focus and techniques tends to be on the language-based interpretations and belief networks. They note the influential work of Aaron T. Beck and Albert Ellis and state that what organizes the cognitive perspective is a foundational assumption that "emotional disturbances are seen as emerging from problematic, maladaptive, and/or unrealistic interpretations" . Major forms cognitive therapy can be understood as a systematic approach of becoming aware of, assessing, and changing one's justification system. For example, traditional Beckian cognitive therapy works by teaching individuals how verbal interpretations and self-talk feedback on feeling states and subsequent actions. Beliefs (i.e., which are characterized as justifications in the current framework) such as, "I will likely fail at this" or "She will never like me" activate feelings of failure and defeat and tend to lead to behavioral avoidance and contribute to maladaptive cycles.

The focus of cognitive therapy is to develop awareness of one's justification system and to determine the validity and adaptiveness of various beliefs. For example, it is common in cognitive therapy to teach patients to conceive of their verbal cognitive system as consisting of three levels: (a) automatic thoughts, (b) intermediate reasoning, and (c) core beliefs. Patients are

then taught to link the content of their beliefs at those levels to feelings and actions, and then to develop systematic ways, via collaborative empiricism, to determine which justifications are accurate and helpful and which are not.

A central feature of CAST is the claim that the five systems of character adaptation line up strongly with the primary foci of the various major paradigms of individual psychotherapy (Figure 8). CAST also lines up with modern personality theory by providing a big five scheme for the mechanisms underlying characteristic adaptations, as delineated by McAdams and Pals (2006). With CAST, one can see that the different major paradigms have emphasized different systems of character adaptation, thus allowing for a much more unified view of psychotherapy.

Figure 8. Aligning the major paradigms in therapy with the five systems of adaptation.
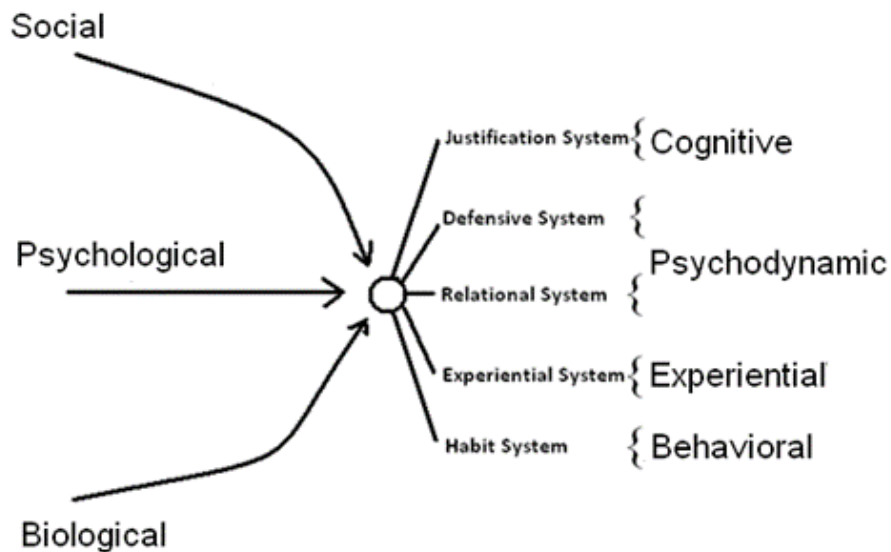
Conclusion: Toward a Metaphysical Empirical Psychology

The central point of this chapter is to highlight the fact that there is a continuum of analysis, stretching from empirical data and information on one end, through hypotheses, models

and theories, paradigms into meta-theoretical and finally metaphysical questions on other end of the spectrum. It is the role of the theoretical and philosophical psychologists to attend to the latter portion and to examine the interrelations between claims across the various points of the spectrum. Many theoretical and philosophical psychologists have traditionally adopted a critical attitude or perspective in relation to mainstream practice, rightfully highlighting problematic assumptions, alternative perspectives, and implicit issues of power and privilege. At the same time, another function of theoretical and philosophical psychologists is, as Slife and Williams point out, to analyze the discipline as a whole and offer possible constructive avenues for integrating the field. This is the angle with has been advanced here.

The problem of defining psychology emerged from the absence of an adequate metaphysical system that could effectively answer some of the field's most difficult conceptual problems. These include disentangling mentalist versus behaviorist accounts of psychological phenomena, delineating the ways in which persons are both continuous and discontinuous with other animals, and clarifying whether the discipline is primarily a natural science, a social/human science or an applied profession. The ToK System is a new metaphysical empirical system that is consistent with developments in modern science and affords theoretical and philosophical psychologists a new tool to view the whole of the discipline. From this system, a number of conceptual and meta-theoretical proposals have been developed. This chapter ended with a review of CAST as a meta-theoretical integration that can build bridges between different paradigms in psychotherapy. As such, the example was provided as to how theoretical and philosophical psychologists might constructively operate from the metaphysical and meta-theoretical ends of the spectrum to build systems and integrate the paradigms and allow for more cumulative psychological knowledge.

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