Chapter 1
From Racing Horses to Seeing the Elephant

So oft in theologic wars,
The disputants, I ween,
Rail on in utter ignorance
Of what each other mean,
And prate about an Elephant
Not one of them has seen!
John Godfrey Saxe (1816–1887)

What if the field of psychology had a unified theory that virtually all agreed was the correct one? What if, as a group, we psychologists could clearly define the discipline, unite the various psychological paradigms into a coherent meta-paradigm, and clarify psychology's relationship to the natural sciences, the social sciences, and the humanities? It boggles the mind to ponder the implications of such a thing. And yet that is what this book is about. It offers a new unified theory of psychology that attempts to do all of this—and more.

It is readily arguable that it is the absence of a "unified theory" that makes psychological knowledge seem so different than the knowledge produced by the more mature disciplines of physics and biology. Knowledge in these disciplines seems, by comparison, relatively clear, objective, and coherent. In contrast, knowledge in psychology exists as a collection of competing and overlapping schools of thought, and there is an almost endless list of schisms, confusions, and disagreements about foundational issues. It is true that there are many disputes in physics and biology, but what makes these qualitatively different from the foundational issues in psychology is that there is a general agreement about the major organizing theories and concepts. Modern physics, for example, is grounded in quantum mechanics and general relativity, and modern biology is organized by natural selection, genetics, and cellular theory. In contrast, there is no generally accepted framework in psychology, but instead profound disagreement, confusion, and almost limitless opinions about the foundational issues. Moreover, camps in psychological theory and practice are too often defined against one another, both conceptually and politically. For example, the extreme anti-mentalistic stance of the behaviorists in the middle part of the twentieth century was defined in part against the mentalistic excesses of Freudian theory. In contrast, the humanistic psychologists were defined against the mechanistic and deterministic views of both the behaviorists and the psychoanalysts.

But perhaps such comparisons are not apt. Perhaps psychology is a different kind of entity than either physics or biology. Maybe such questions reflect a hard science envy that is misguided and born out of the jealous insecurities of some in the so-called soft sciences. Historically, there is evidence that yearning for the precision and objectivity of the "hard" sciences can have dangerous consequences. One can argue, for example, that the behaviorist reign in American psychology during the first half of the twentieth century was the product of psychological scientists parroting physicists, rather than recognizing that the distinctive way their subject matter behaved required a distinctive approach.

The more recent impact of the postmodernist perspective is an indication of just how many psychologists have become deeply skeptical of traditional scientific approaches. Although there are many variants of postmodern thought, they all share the conviction that natural science approaches and assumptions of objectivity, realism, and foundationalism are seriously problematic for understanding the human condition. Postmodernists argue that knowledge about humanity is constructed rather than discovered, that there are no grand meta-narratives applicable to all, and that there is no objectively definable human nature that is separable from the socio-historical context in which individuals are embedded. Put slightly differently, whereas the modernist believes "Truth" can be separated from the political, the postmodernist is skeptical of "Truth" with a capital "T" and believes "truths" are always political. From the vantage point of the unified theory, there are aspects of the postmodern critique of naturalism that have validity. Most notably, the postmodern perspective raises crucial insights and questions regarding the intimate connection between the social construction of knowledge, the cultural context, and power in the sciences. In line with much postmodern thought, according to the perspective offered here, the connection between the social justification of knowledge, cultural context, and power in the human sciences is one that pure natural science frames have not—and ultimately cannot—effectively handle.

Nevertheless, the unified theory ultimately is closer to modernist approaches than postmodern ones. This is primarily because the unified theory is directly at odds with one of the tenets of postmodernism, anti-foundationalism, which is the explicit rejection of any overarching set of ideas that will effectively and accurately organize knowledge in the human sciences (Held, 2007). The unified theory, as implied by its name, is foundationalist to the core. It proclaims universal truths about the universe and the human condition, and it connects human science to the natural sciences. Moreover, in contrast to some anti-foundationalists who have argued it is a moral obligation that psychology remains fragmented, the unified theory posits that a shared language and agreed upon conceptual foundation is not only possible, but it is also a good thing in the deepest sense of the word. In short, the unified theory represents a post-postmodern grand meta-narrative that I claim is both *True* and *Good*.

Although postmodernists strongly reject foundationalism, there has been little or no acknowledgment by such authors about the fact that the absence of a general foundation has been hugely problematic for psychology, especially from the pragmatic standpoint of the field's capacity to effectively impact society. Some

psychologists have seen the lack of a coherent foundation as being so significant that it threatens the core integrity of the field. Sternberg and Grigorenko (2001) offered a proposal for a "unified psychology" that was justified primarily because the costs of fragmentation were so obviously preventing the discipline from reaching its full potential. There is much to be valued in the pragmatic argument for unification, and I joined with Sternberg to argue why the unified psychology approach could contribute to unifying the profession of psychology, as well as the science (Henriques & Sternberg, 2004).

And yet, despite the fact that there are compelling pragmatic and political reasons for moving toward a more unified approach, it is also the case that advocating unity for unity's sake raises some significant concerns. Without addressing the foundational issues, the pragmatic appeal of a unified psychology can be reinterpreted as asking psychologists to gloss over authentic differences in paradigms and perspectives just so that we all get along with the illusion of unity. Given this criticism, arguments for a pragmatic unity do not seem to be completely adequate, and the eclectic blending of ideas can be argued to be a weak intellectual solution. I believe that if unity in psychology is to be authentically achieved, it can only come—as has been the case in physics and biology—through a theoretical system that organizes and explains empirical findings and provides psychologists with a shared language and conceptual frame to understand their subject matter.

Sparking the Search for the Elephant

The unified theory began to emerge when I was a graduate student and took a course on psychotherapy integration. Coming into the course, my approach was firmly rooted in a cognitive behavioral perspective. I thought about psychological problems in a fairly practical way, and my therapeutic style was congruent with examining problems, thinking about thinking, and taking action to effect change. I also took solace in the fact that cognitive behavioral approaches to therapy were based on research. In contrast, psychodynamic and humanistic approaches seemed to me at the time to be fuzzy, abstract, idealistic, and unscientific. The course would radically shift my thinking.

Prior to taking the course I had subconsciously internalized the frame—so common in our field—of a horse race between competing paradigms. Cognitive, behavioral, psychodynamic, humanistic, and family systems approaches (among others) each claim to offer a holistic account of the human condition. Entire systems of thought, core philosophical assumptions, journals, as well as training and research programs have been built up around each perspective. Students are exposed to each "horse" and pushed by various supervisors and professors to place their bets on one or another. My course in psychotherapy integration taught me that the horse race frame is all wrong. Some of the important reasons include the following: (a) many of the single schools are defined against one another both conceptually and politically; (b) there is much complementarity between the paradigms, with the strengths in one perspective being weaknesses in another and vice versa; (c) there is

much overlap between the schools that becomes apparent as one becomes proficient in their language and concepts; and (d) no single school has both the humanistic and scientific depth and breadth to offer a comprehensive solution. Other key pieces of evidence that have led to questions about a single school approach include the fact that treatments from different perspectives have tended to yield very similar outcomes (the so-called common factors finding), and there have been a number of successful attempts to blend psychotherapy techniques and integrate across the major theoretical perspectives. The dramatic increase in eclecticism and more recently in integrative psychotherapy over the past two decades is a strong indicator of the benefits of the integrative approach.

Learning about the psychotherapy integration movement, I began to shift my frame from assuming a horse race mentality to embarking on a quest to find the elephant. That is, I began to sense that the single schools' relationship to "truth" was analogous to the six blind men who happen upon an elephant in the famous parable by John Godfrey Saxe. In the parable, each man grabs a hold of a piece of the elephant and makes strong proclamations about its true nature. One, holding onto its trunk, claims it is like a snake; a second pats down its leg and proclaims it is like a tree trunk; a third feeling its tail proclaims it is like a rope; a fourth touching the point of the tusk says it is like a spear; a fifth grabbing its ear says it is like a fan; and the sixth pushing up against its side says it is like a wall. And, in justifying the validity of his perspective, each man dismisses the others as being, well, blind to the truth. There must be a way, I came to believe, to integrate the key insights from the various approaches and see the elephant as a whole.

I remember one particular lecture in my psychotherapy integration course that got me especially excited about the possibility of finding the elephant. Based on the pioneering integrative work of Dollard and Miller (1950), my instructor was introducing approach–avoidance conflicts as a frame for linking behaviorism with psychoanalytic perspectives. He entertainingly took on the role of a young man with some social anxiety at a bar who spied an attractive woman with whom he greatly desired to strike up a conversation and, perhaps, a relationship. As the man envisioned such a relationship, greater levels of approach motivation became activated, and he began to feel energized and almost initiated getting off the bar stool and introducing himself. However, as soon as the action started to materialize, images of him bungling his greeting and her chiding his efforts emerged, and the anxiety suppressed the impulse.

My professor helped me to see how the approach–avoidance motives would fluctuate in strength and salience by acting out how the man might start to walk over to the woman getting halfway there only to spin around and head back to the negatively reinforcing barstool, safely avoiding the anticipated threat. Perhaps because the example strongly resonated with me at a personal level, I distinctly recall for the first time the powerful realization that psychodynamic concepts of wishes and fears could clearly be connected to behavioral notions of reinforcement and punishment. It was a simplistic connection in retrospect but a profound one for me nonetheless.

Despite the problems associated with a single school approach, there remained significant difficulties achieving a coherent integrative view. First, there are

an almost endless number of schisms in psychology, along with massive methodological complexities, and philosophical problems. Second, the so-called grand theories (e.g., Freud's Psychoanalysis, Skinner's Radical Behaviorism, and Roger's Humanistic Psychology; see Demorest, 2005) have different although often implicit moral emphases and this complicates the integration process enormously. In a commentary titled *Grand Theories of Personality Cannot Be Integrated*, Wood and Joseph (2007) made this point, commenting that "a detailed reading of the grand theorists reveals in-depth conceptions of human nature that are fundamentally irreconcilable, and although they are fundamental assumptions, they cannot be dismissed because of their inescapable influence on therapeutic practice" (p. 57). Likewise, Wachtel (1997) offered one of the pioneering works in psychotherapy integration that theoretically linked psychoanalysis with behaviorism. Yet one of the most substantive critiques of Wachtel's work came from Messer and Winokur (1980) who argued strongly that the psychoanalytic perspective offered a tragic and romantic view of human nature, whereas the behavioral perspective was more comic-situational, and these two kinds of narratives could not be effectively woven together into a coherent picture of the human condition without loss of their essential value.

It turns out then that searching for the elephant is not only about organizing the key theoretical insights into a coherent whole in a manner that can generate an objective description of human behavior. Embedded in each major model are value-based assumptions, which at the very least impact the application of such models in competing ways. Indeed, here was a good reason why integrating paradigms in the human sciences is qualitatively more complicated than in the natural sciences. As argued by several postmodern theorists, human science paradigms carry—either explicitly or implicitly—value-laden assumptions that have direct implications for their application. With this problem clearly in focus, it seemed to me at that time that the dreams of a unified theory of psychology were slight indeed. And yet, despite the formidable nature of the task and problems of both fact and value, this book nonetheless articulates a new unified theory that I argue deals effectively with the major philosophical, theoretical, empirical, and moral issues that have pressed upon psychology since the earliest days of its inception.

Psychology is a thicket of conceptual problems, and any proposal that seeks to unify the field must be able to address the multitude of major issues. Chapter 2 surveys the key problems in the field and touches on issues as varied as the philosophy of mind and behavior, problems of values, and problems defining the proper subject matter of the discipline. I show why there is an ocean of difficulty confronting any proposed unified theory, and at the same time I point out why the mass of competing perspectives greatly hampers the field's capacity to reach its potential. I then articulate what I call the problem of psychology, which is the claim that psychology's conceptual difficulties exist at the very fault lines of human knowledge and represent one of the most vexing philosophical problems of the day. In looking at the tangled mass of information that is the current state of affairs in psychology, it seems clear that if the correct unified theory could be found it would make a huge difference in the role psychology plays in society at large.

Many have raised concerns about psychology's fragmentation, and several proposals have been made to help the field achieve a more unified vision. Although these works have many positive features, I believe previous approaches to unification have not been sufficient because they have failed to provide a broad, clear philosophical framework that sets the stage for defining the discipline and coherently unifying the major paradigms in the field. When one asks *basic* questions of these proposals such as "How are life, mind, culture, and behavior defined?" or "How is psychology differentiated from biology from below and the social sciences from above?" or "What precisely is the relationship between the science and the profession?" or "How are the key insights from fields like neuroscience, psychodynamic theory, evolutionary theory and genetics, behavioral science, cognitive science, systems theory, and social constructionist perspectives retained and integrated into a coherent whole?" answers are not readily forthcoming. Instead, these proposals generally struggle with or remain silent on these big questions.

The analysis stemming from the problem of psychology leads strongly to the conclusion that there are deep philosophical confusions at the heart of the discipline, which have led to profound definitional ambiguities. It follows from this that what is needed is a meta-theoretical framework that crisply defines the subject matter of psychology, demonstrates how psychology exists in relationship to the other sciences, and allows one to systematically integrate the key insights from the major perspectives in a manner that results in cumulative knowledge. This is what the unified theory purports to achieve.

It achieves this goal by introducing broad theoretical structures that can take the disparate and fragmented lines of thought in psychology and assimilate and integrate them into a coherent whole. In the psychotherapy integration literature, assimilative integration is a term coined by Messer (2001) and describes a perspective that allows one to incorporate key insights from other approaches into one's own primary therapeutic outlook. He proposed that although the world of psychotherapy may appear diverse and contradictory, there is a way to achieve a more coherent view by using one's theoretical apparatus to assimilate and integrate the observations, theories, and techniques from other perspectives. Thus, a psychodynamic practitioner might re-examine cognitive therapy principles in terms of enhancing ego strength, or a behavioral psychologist might frame the focusing of warded off thoughts and feelings a psychodynamic clinician does in terms of exposure to threatening stimuli. The point of assimilative integration is that the theorist adopts a particular theoretical frame and then looks to assimilate and integrate various insights, techniques, and findings from various perspectives.

The current perspective works via assimilative integration; however, instead of operating from an existing paradigm like psychodynamic theory or cognitive science, it introduces a whole new theoretical apparatus that can assimilate and integrate the various findings and key insights from each of the major perspectives in psychological theory and practice. The purpose of this book is to provide readers with enough of an outline of the ideas to see how existing insights can be integrated

and assimilated into a more coherent whole. But before we delve too deeply into the unified theory, a brief review of the major perspectives in psychology may be helpful.

The Currently Dismembered Elephant: Reviewing Key Insights from Major Paradigms

The argument that I am making is that psychology is currently an ill-defined discipline consisting of a group of mid-level theories, perspectives, and schools of thought that each articulate some basic truths about the human condition but are organized in a manner that makes them compete against one another instead of being harmoniously and coherently interrelated. Here I offer a very brief review of six major perspectives and articulate what the key insights are that the unified theory assimilates into the whole. It should be noted that these six perspectives are not an exhaustive list, and there are many that could be included and certainly have relevance to the questions at hand. Biopsychiatry, Family Systems Theory, and Russian Activity Theory are just a few examples, not to mention perspectives from anthropology, sociology, economics, literature, and philosophy that all afford crucial insights into the human condition. But there must be some boundaries on the focus, thus I have narrowed the emphasis to the major perspectives that are influencing the science and practice of psychology in the West.

Psychoanalysis and Psychodynamic Theory

For the first half of the twentieth century, Freud's ideas dominated much of the psychological landscape, and although they have greatly diminished in terms of influence they nevertheless have left an indelible mark on the field and remain a notable force, especially in psychotherapeutic practice. There are several key insights from the Freudian perspective that have stood well the test of time, and there are many others that have not. Some of the claims that have not fared well and do not fit into the unified theory offered here include the following: the Oedipal Complex as a defining feature of male psychology; the notion that all psychological motives stem from two foundational drives of sex and aggression; the claim that the unconscious operates on and is gratified by symbolism; the claim that human males are more psychologically advanced than human females and that females are inherently jealous of males; the idea that development proceeds through psychosexual stages centered on erogenous zones; the proposition that most psychological disturbances are linked to specific childhood events frozen in unconscious memory; and the claim that the best treatments for neurosis are centered on transference and free association. Of course, Freud himself would be greatly disheartened to see this list, as many of these ideas are defining features of his psychoanalysis.

And yet, despite this list, it remains the case that Freud was an enormously astute observer of the human condition, and he, along with many neo-Freudian theorists,

offered lasting insights (see Westen, 1998). Psychodynamic theory, which combines aspects of Freud's observations with psychological science, is a viable position and in many ways, the unified theory offered here is psychodynamic in nature. The central insight of a psychodynamic perspective is the fact that there are often powerful subconscious motivational reasons behind the reasons we offer to justify our behavior (see Henriques, 2003a). As discussed in Chapter 4, the human self-consciousness system does indeed function to filter out unacceptable impulses and frequently generates self-serving or protective justification narratives, often with the individual blithely unaware of the biased nature of the construction. Psychodynamic theory further teaches that these motivational forces arise out of internal working models of self and other and often operate on the edges of awareness. Psychodynamic theory is also a conflict theory, proclaiming that we often experience conflicting wishes, fears, and expectations and engage in defense mechanisms to manage the tension and anxiety that results. In addition, the early attachments that we form with our caretakers foundationally set the stage for later socio-emotional relating patterns, and these patterns are crucial to our psychological functioning, health, and well-being. As will become clear, all of these insights fit well with the holistic picture offered by the unified theory.

Behaviorism

Perhaps second only to Freud's psychoanalysis, behaviorism has had a huge impact on the field. Although a dominant force in academic American psychology for the first half of the twentieth century, like psychoanalysis the influence of behaviorism has markedly diminished over the past several decades. Behaviorism itself fragmented most dramatically with Skinner, with neobehaviorists tentatively allowing for internal mentalistic constructs like cognitive maps and radical behaviorists focusing almost exclusively on external determinants. Neobehaviorists generally merged with cognitivists in the latter part of the twentieth century, whose rise was perhaps most notably associated with Chomsky's (1959) critique of Skinner's analysis of verbal behavior. Since that time radical behaviorism has split off from mainstream psychology, becoming a relatively isolated, separate school of thought. From the vantage point of the unified theory, this has been something of a tragedy. Skinner is to blame in part for this, as both his rabid anti-mentalism and conception of behavior were flawed. If we are ever to achieve even a relatively complete understanding, it is clear that the internal and external causes of animal behavior must be woven together into a holistic system. Skinner was thus guilty of being excessively defined against mainstream psychology.

Nevertheless, behaviorism offered many lasting insights. Associative and operant conditioning are foundational processes. And, as will be argued later, it is essential to be able to view "mind" as a kind of behavior as opposed to a separate entity that causes behavior. Moreover, Skinner's conception of behavioral selection is fundamental to understanding mind and this insight can be merged with cognitive neuroscience in a manner that yields a powerful integrative framework.

Existentialism and Humanistic Psychology

Both psychoanalysis and behaviorism offer problematic worldviews. They are overly mechanistic, deterministic, and fail to offer a view of humanity that can at least co-exist with the great religious traditions and provide a framework for generating meaning and purpose that allows individuals to strive to reach for ever higher and nobler human pursuits. Moreover, both Freudian and Skinnerian theories can be accused of failing to appreciate the incredibly social nature of human beings, the degree to which we are embedded psychically in our relational worlds, and the importance of transcending ourselves into larger causes. The highlighting of these issues and many others, such as the incredibly idiographic nature of our existence and the importance of the stories we live by, made the existentialism of Rollo May and Victor Frankl, and the humanistic psychologies of Carl Rogers and Abraham Maslow a "third force" in psychological theory that emerged with great hopes in the middle of the twentieth century. These insights, in addition to the centrality of the therapeutic alliance to healing, are all heralded by the unified theory. The weaknesses of existentialism and humanistic psychology center on the ambiguity of the conceptual frames offered and that such frames were sometimes tied to ideology in a manner that hindered their ability to generate cumulative, objective knowledge. For example, the idea that people are fundamentally guided by a positive organismic growth force is more ideological than scientific.

The Cognitive Approaches

The cognitive approaches include a number of loosely related lines of thought, with several of the more prominent being cybernetics, linguistics, computational psychology, cognitive development, social cognitive theory, and cognitive psychotherapy. Historically, gestalt psychologists were the forerunners of modern cognitive psychology. Advances in information science, artificial intelligence, and computational modeling all converged to offer the central insight of the cognitive approach, which is that the nervous system is an information processing system that inputs sensory data, performs computations on that information, and then produces behavioral outputs. The cognitive approach gained ascendancy in the 1950s and 1960s and probably remains the dominant school (or set of schools) of thought in the field today.

Although there is much diversity in the cognitive approaches, and I am obviously painting with broad strokes, some of the major weaknesses in the early approaches were that the models of cognition were overly simplistic, symbolic, sequential and were relatively disembodied from affective, neurological, behavioral, and developmental processes, as well as the evolutionary history of the species and the cultural context in which modern humans were embedded. Interestingly, over the past 20 years there have been many developments in precisely these areas. Thus we now have cognitive neuroscience, evolutionary psychology, and many models that attempt to more explicitly integrate cognitive and affective processes. Given its

breadth and depth, it is not surprising that several have argued that the cognitive approach provides psychology with a reasonably unified framework. The current work not only incorporates the key insight from the cognitive approach but also addresses its fundamental weakness, which is its ambiguity and diffuseness, as well as its ability to fully integrate the other perspectives, such as behaviorist, humanistic, and psychodynamic approaches.

Evolutionary Psychology

Emerging in the early 1990s, evolutionary psychology combines the cognitive paradigm with advances in modern Darwinian approaches to animal behavior, most notably sociobiology and behavioral ecology. The central insight from an evolutionary psychological approach is that the human mind must be understood as the product of neo-Darwinian evolutionary forces. Although other paradigms in psychology were built on basic evolutionary assumptions, they nevertheless did not effectively assimilate modern evolutionary theory into their foundational premises, and thus in that regard, evolutionary psychology represents a major advance. As we will see, the unified theory deeply incorporates the evolutionary perspective and strongly advocates for the notion that traditional psychological perspectives like behaviorism be merged with modern evolutionary perspectives like behavioral ecology.

   Despite this key insight, evolutionary psychology has not succeeded in providing a unified theoretical framework for all of psychology as some of its advocates hoped it would. Instead, it remains a relatively separate school of thought, and it often appears at odds with other major perspectives, especially learning paradigms and cultural approaches. I believe the primary reason evolutionary psychology fails is because the early advocates of the approach were overly committed to a fairly rigid model of domain specificity, which closes down the idea that human capacity for culture evolved out of a fairly domain general reasoning mechanism. As will be discussed later, a primary insight from the Justification Hypothesis is that, as a consequence of language, our hominid ancestors did indeed confront a relatively domain general adaptive problem, called the problem of social justification and this resulted in a qualitative shift in mental processes and the evolution of a new dimension of complexity. Thus the Justification Hypothesis opens up pathways for linking evolutionary psychology with cultural approaches.

Cultural Psychology

Cultural psychology studies the impact of culture, tradition, and social practices on the human psyche. Leading proponents of cultural psychology often argue that human minds are completely dependent on the shared and constructed reality developed by peoples in various socio-historical contexts. Thus in direct contrast to evolutionary psychologists, cultural psychologists tend to argue that there are no

universal laws for how the human mind works and that psychological theories grounded in one culture are likely to be limited in applicability when applied to a different culture. Although cultural psychologists tend to be somewhat more relativistic and postmodern in their epistemological assumptions than the unified theory, proponents of cultural psychology offer a key insight that the cultural context does indeed have a fundamentally deep impact on how human minds develop. Developed in Chapter 4, the argument from the vantage point of the unified theory is that humans have a mental organ of justification that allows them to "download" the explanatory frames of their social context and these greatly influence the manner in which they experience and act in the world.

The fundamental criticism of the current overall state of affairs is that psychology presently consists of perspectives and paradigms that offer key insights into the human condition but are constructed and developed in a manner that does not allow these insights to be woven together into a coherent whole. The argument made here is that with the correct meta-theoretical framework afforded by the unified theory we can move from the current midlevel theories that offer key insights but do so in a manner that makes them appear mutually exclusive and assimilate and integrate these insights into a comprehensive set of ideas that articulates a clearer picture of the human condition.

The Elephant: The Four Pieces That Make Up the Unified Theory

The unified theory consists of four separate but related pieces that combine to provide a new frame for understanding human behavior and the human condition. They are the following: (1) Behavioral Investment Theory; (2) The Influence Matrix; (3) The Justification Hypothesis; and (4) The Tree of Knowledge System. The argument is that with these four pieces, psychologists can achieve fundamental resolution to the foundational issues that have plagued and confused the field since its inception. In other words, with the lens provided by the unified theory, psychologists will finally be able to see the elephant.

The broadest aspect of the unified theory is the Tree of Knowledge (ToK) System, which is a new pictographic depiction of cosmic evolution. Cosmic evolution refers to the changes that have taken place in the universe since the Big Bang that have resulted in the incredibly diverse and complex universe we know today (Chaisson, 2001). Figure 1.1 offers the most basic representation of the ToK System, and more details will be added to this basic foundation. One lesson that emerges from analyzing psychology's conceptual problems is that we are in desperate need of a macro-level view that defines key terms and how they exist in relationship to one another. Many problems in the field stem from the fact that terms such as mind, brain, behavior, cognition, consciousness, self, and culture mean different things from different perspectives. Completely lacking is a meta-perspective map that defines these terms and defines them in relationship to one another. One of the most unique and hopeful elements of the unified theory is that it comes with such a map.
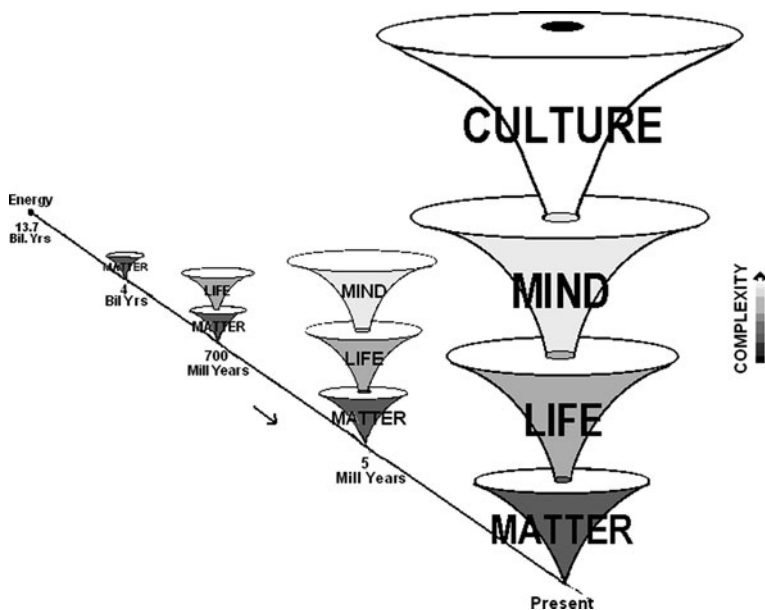
Fig. 1.1 The Tree of Knowledge System

Although it likely has some familiar characteristics, it is nonetheless the case that the ToK System is a new map of cosmogenesis. The most novel aspect about the ToK System is the ontological claim that there are four distinguishable dimensions of complexity. Virtually all other models depict the hierarchy of nature as a single dimension of complexity that stretches from subatomic particles to molecules to organisms to human societies. But as will be articulated in detail in the chapter on the ToK System, the depiction of four different dimensions of complexity is the needed change in perspective that allows one to see how scientific theories can be organized and how psychology in particular can be defined. Why are there different dimensions of complexity, in addition to different levels of analysis? I will be answering this question throughout the book, but the short answer is that these separate dimensions emerge because of the evolution of novel information processing systems. According to the ToK System, genetic information processing gives rise to the dimension of Life, neuronal information processing gives rise to the dimension of Mind, and symbolic information processing gives rise to the dimension of Culture.

These dimensions of complexity are different dimensions of causality, which is a rather profound philosophical argument. To see why, consider that Descartes' philosophical analysis is famous for its dualism. Matter and mind were conceived by Descartes as separate spheres of substance and cause. In contrast, modern scientific views have argued for a monistic position. Mind must be some form of matter because the problem of nonmaterial causality is philosophically insurmountable.

The ToK System is monistic in the sense that the higher dimensions of complexity supervene on the lower dimensions. By that I mean that everything that is biological is also physical, everything that is psychological is biological, and so forth, with Energy being the ultimate common denominator. But the ToK System is not greedily reductionistic. Everything is not *just* energy and matter, and biology, psychology, and the social sciences cannot be reduced to physics because there are fundamentally different dimensions of complexity.

The separate dimensions of complexity in the ToK diagram are intimately connected to two of the three other pieces that make up the unified theory: Behavioral Investment Theory and the Justification Hypothesis. These ideas are what are known as joint points in the ToK System. Joint points are the links between the dimensions of complexity. They provide the theoretical framework that explains how the higher dimension evolved out of the lower dimension. From the vantage point provided by the ToK System, the modern evolutionary synthesis is the joint point between Matter and Life because it is biology's unified framework, providing the basic frame for understanding the evolution of biological complexity (Mayr & Provine, 1998).[1] Using the ToK diagram, we can then ask: Are there joint points between Life and Mind and between Mind and Culture? The short answer is yes, and Behavioral Investment Theory and the Justification Hypothesis are the respective theories.

Behavioral Investment Theory, the third joint point on the ToK System, provides the framework for understanding the evolution of the animal mind, and it is the subject of Chapter 3. The basic idea of Behavioral Investment Theory is that the nervous system has evolved into an energy management investment value system that computes increasingly complex and flexible behaviors. An example here might help get you thinking about the concept. Crows on the west coast of Canada feed on whelks, which are a type of shellfish. The crows crack the shells of the whelks by picking them up and dropping them onto the rocks below. Behavioral Investment Theory makes the general prediction that animals will tend to spend the least amount of behavioral energy necessary to achieve the desired outcome, which in this case is a cracked shell that provides access to food. Researchers calculated the amount of energy required by the crows to lift the whelk to the point that optimizes the likelihood that the shell would break. If the crow does not lift the whelk high enough it will require several drops, yet flying it higher would result in the unnecessary expenditure of energy. The calculations found that the optimal expenditure of behavioral energy would be achieved by flying the shellfish to approximately 5 meters and indeed this was very close to the heights from which the birds actually dropped the whelks (McFarland, 1985).

Behavioral Investment Theory consists of six fundamental principles that are generally well known in animal behavioral science, but are often not put together.

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[1]This is not to say that deep biological theory is totally complete, only that a consensually agreed upon outline has been achieved. Biological researchers have still not solved the fundamental problem of how life began. Thus, deeper insights are still to be made, perhaps along the lines of self-organization or nonequilibrium thermodynamics. Nonetheless, the combination of natural selection and genetics has provided enough understanding so that the joint point is relatively clear.

They are the principles of (1) energy economics; (2) evolution; (3) behavioral genetics; (4) neurocomputational control; (5) learning; and (6) development. The value of Behavioral Investment Theory is that it consolidates existing theoretical perspectives and, in conjunction with the holistic vision afforded by the unified theory, allows for previously separate lines of thought and research to be coherently integrated. Specifically, Behavioral Investment Theory seeks to assimilate and integrate the major perspectives in mind, brain, and behavior, including (1) evolutionary biology and genetics; (2) neuroscience; (3) behavioral science; (4) computational/cognitive science; and (5) developmental systems theory. Moreover, placed in the map afforded by the ToK System, it provides a new way to think about mind and behavior through the concept of mental behavior. Mental behavior refers to the behavior of animals mediated by the nervous system and includes overt actions and covert cognitive processes. As I will clarify in Chapter 7, the mental behavioral approach creates a sensible amalgamation of mentalistic and behavioral perspectives.

The third piece of the unified theory is the Influence Matrix, which is an extension of Behavioral Investment Theory to human social motivational and emotional processes. Like the ToK System, the Influence Matrix also comes with a diagram (see Chapter 4). This diagram is a map of the architecture underlying the way humans process social information, develop social goals, and are guided by emotions in navigating the social environment. The Influence Matrix posits that out of an initial bed of dependency, motives for power, love, and autonomy emerge and guide individuals' social development. The Influence Matrix integrates a wide variety of different perspectives including attachment theory, psychodynamic theory, trait theory, interpersonal psychology, and evolutionary psychology. Research will be reviewed showing how the lens afforded by the Influence Matrix can capture and explain findings, as well as provide new insights into old dilemmas. The Influence Matrix is central to understanding the unified theory because motives for social influence play a crucial role in the manner humans construct reasons for their behavior, which is the focus of the fourth and final piece of the unified theory.

Animals such as dogs, baboons, and chimpanzees clearly feel pleasure and pain, think nonverbally, strive for dominance, defend their territories, and experience strong, complicated emotional attachments. Yet only humans write books, develop laws and religions, build complex machines, engage in structured games, ponder their eventual death—and the list could go on and on. What, at bottom, makes us so different than other animals? The fourth piece of the unified theory is called the Justification Hypothesis. The Justification Hypothesis is the joint point between Mind and Culture on the ToK System. It is a theory of human self-consciousness and the evolution of human culture, and sheds new light on how humans construct meaning. The Justification Hypothesis was conceived of prior to the rest of the theory and can be considered a primary insight that laid the foundation for the development of the unified theory as a whole. Because the concept of justification systems is crucial, some elaboration on what justification systems are and how they work is necessary.

Before I proceed, a summary statement is in order. The unified theory consists of four new conceptual pieces that together can solve the problem of psychology. Up until this point, there have been major unresolved questions as to how we can move from our scientific understanding of behavior at the physical and biological levels of analysis into the psychological and finally the sociological levels, all while maintaining a consistent framework of explanation. The unified theory argues that Behavioral Investment Theory, the Influence Matrix, and the Justification Hypothesis fill in the major missing pieces that take us from basic animal behavior to complicated socio-emotional attachments and finally into human consciousness and culture. The ToK System, with its depiction of four separate dimensions of complexity, provides the overall map, taxonomy, and definitional system.

The Development of the Justification Hypothesis

The Justification Hypothesis is an idea about the structure and function of self-consciousness and culture and why both evolved in humans. Insight into the Justification Hypothesis came when I was immersing myself in the literature on evolutionary psychology, social and cognitive psychology, and psychodynamic theory. The manner in which the Justification Hypothesis forms a hub between these ideas will be spelled out in greater detail in Chapter 4. For now I will share the moment I experienced the proverbial "flash of insight" that ultimately led to the development of the Justification Hypothesis. It was in 1996 when I was a doctoral student in clinical psychology at the University of Vermont. I had just completed a psychological evaluation on a woman in an inpatient psychiatric ward. In her late thirties, she was diagnosed with Major Depression and an Avoidant Personality Disorder, which meant she was extremely shy and socially anxious and had strikingly low levels of self-esteem. A woman with an above average intellect, she had graduated from high school, worked as a teacher's aide and lived in almost complete isolation on the brink of poverty. In a reasonably familiar story line, her father was an authoritarian, verbally abusive alcoholic who dominated her timid, submissive mother. He would also be physically abusive to her older brother, who was much more defiant of his power. She distinctly remembered several episodes of her father beating her brother, while yelling that her brother needed to be more like his obedient sister.

Perhaps the most salient feature of this patient's personality was her complete sense of inadequacy. She viewed herself as incompetent in almost every conceivable way and demonstrated an extreme dependency on the guidance of others. In presenting the case to my supervisor and classmates, I argued that the network of self-deprecating beliefs served an obvious function, given her developmental history. Namely, the beliefs she had about herself had functioned to justify submission and deference in a context where any form of defiance was severely punished. It was the first time I explicitly used the concept of justification to describe how language-based beliefs about self and others were functionally organized.

I arrived home about a half an hour late following the discussion about the patient and found myself explaining to my wife that traffic was particularly bad. Traffic

had been bad, but the reality also was that it only accounted for about 10 minutes of my tardiness. I had left work 20 minutes later than anticipated because I was eagerly discussing the patient's dynamics with my fellow students. In a moment of heightened self-reflection, I became acutely aware that this reason for my tardiness was much less emphasized as I explained my actions to my wife. My mind had effortlessly accessed the traffic reason and just had effortlessly suppressed the reason that was significantly less justifiable, at least as far as my wife was concerned at the moment. It was upon reflecting on my own justifications and how they were selected that the broad generalization dawned on me. The patient was not the only individual whose "justification system" for why she was the way she was could be understood as arising out of her developmental history and social context.

With the lens afforded by the above insights, I came to see processes of justification as being ubiquitous in human affairs. Arguments, debates, moral dictates, rationalizations, and excuses, as well as many of the more core beliefs about the self, all involve the process of explaining why one's claims, thoughts, or actions are warranted. In virtually every form of social exchange, from warfare to politics to family struggles to science, humans are constantly justifying their behaviors to themselves and to others. Moreover, it was not only that one sees the process of justification everywhere one looks in human affairs that made the idea so intriguing. It became clear upon reflection that the process is a uniquely human phenomenon. Other animals communicate, struggle for dominance, and form alliances. But they don't justify why they do what they do. Indeed, if I had to boil the uniqueness of human nature down to one word, it would be justification. We are the justifying animal.

It is important to state here, especially in the context of the above examples, that justifications are not the same as rationalizations. Some, for example, have argued that humans are the rationalizing animal. Seeing humans as the justifying animal is a broader and more complete description. A rationalization is when someone generates a reason for their behavior that legitimizes their actions *and* hides the truer but more painful or less acceptable cause or causes. Nancy McWilliams (1994), a well-known psychodynamic theorist, describes rationalizations as follows:

> Virtually anything can be—and has been—rationalized. People rarely admit to doing something just because it feels good; they prefer to surround their decisions with good reasons. Thus, the parent who hits a child rationalizes aggression by allegedly doing it for the youngster's "own good"; the therapist who insensitively raises a patient's fee rationalizes the greed by deciding that paying more will benefit the person's self-esteem; the serial dieter rationalizes vanity with an appeal to health. (p. 125)

All rationalizations are justifications; however, not all justifications are rationalizations. We often give reasons legitimizing our claims or actions that do not necessarily hide something else. This book can be thought of as a justification for the unified theory but it is not a rationalization. Likewise, laws and scientific theories can be conceived of as justifications, but are not well described as rationalizations.

The Nature of Justification Systems

Although one can always isolate and examine a specific justification, in the real world individual justifications do not exist in isolation. Instead, justifications exist in particular contexts and interlock to form justification systems. Justification systems are networks of linguistically mediated beliefs and values that function to legitimize actions, create meaning, and offer a particular worldview or version of reality. Because it is crucial to get a good working feel for justification systems, I'd like you to take a minute reflect on your own justification systems. Consider, for example, your political ideology, your religious affiliation, and even your theoretical orientation in psychology. The descriptors you employ (e.g., "Democrat," "Protestant," and "Cognitive Therapist") are labels for various justification systems. This is an important and rather profound claim. I am arguing here that all shared socio-cultural knowledge systems can be characterized as justification systems.

To grasp the breadth of this claim, make a trip to the library and open any non-fiction book at random and read the first few pages. Almost without exception, what you will find is an explicit justification for the work and an articulation of how the work exists in relationship to other justification systems. For example, I happen to have on my desk a book on cognitive behavioral therapy for schizophrenia by Kingdon and Turkington (1994). The book opens with a foreword by A. T. Beck, justifying the need for this approach. I could have pulled any nonfiction book off my shelf and found a similar opening; each book contains a system of thought or argument that must be justified. Of course, this book is no exception. Indeed, the unified theory itself is a justification system.

Now turn on the television. What are advertisements, but displays legitimizing the purchase of the product, either explicitly or implicitly? Turn to a talk show, a political commentary, or a show documenting legal or political proceedings. Or watch a drama or comedy or any other show with people regularly interacting. What you will see are people advancing justification systems and justifying why the advancement of other justification systems is problematic. Shift gears and focus your attention inward. Think about your identity and self-concept. Who are you? How are you similar and different from other people? What are the core aspects that define you? What do you believe makes you unique? Why should people see the world as you do? When you are challenged, what is particularly likely to make you feel insecure or defensive? From the vantage point offered here, self-concept and identity are personal justification systems. The conscious portion of your "private self" is the stream of self-talk you engage in, the portion of your mind that attempts to develop a narrative of what is happening and why. Your global worldview—that is, your language-based version of reality—is made up of both your personal and ideological justification systems.

Many people would just refer to these as systems of beliefs. Does it matter whether you call them beliefs or justification systems? Yes, for three primary reasons. First, according to the unified theory, there are two kinds of beliefs: non-verbal (i.e., perceptually represented) and verbal (i.e., symbolic). Other animals

have beliefs, in that they form mental maps or representations regarding the world and act on those expectations. One could say, for example, that the dogs in Martin Seligman's famous learned helplessness experiments believed they could not escape from the shocks. In contrast, justifications are linguistically based representations of how the world works. According to the map provided by the ToK System, language-based information processing exists on a different dimension of complexity (the fourth dimension, Culture) than neuro-information processing (the third dimension, Mind), so the distinction is crucial in that regard.

The second reason that thinking of language-based belief systems as justification systems is important is that the Justification Hypothesis characterizes our reasoning system as a justification system, in contrast to, say, a purely algorithmic or analytic processing system like a computer or calculator. This is a major difference because it suggests that human reasoning is largely guided by motivation and emotion. Think for a moment about how reasoning about various outcomes changes based on what you desire or how you feel. For me, one of the clearest examples is the difference in my reasoning about when I should get up in the morning the evening before I go to bed in contrast to when I first wake up. In the evening, I am convinced that I should get up early because I have much work to do, that it is good to be conscientious, and that it takes approximately 40 minutes to get ready. When the alarm goes off, a totally different narrative is activated. I decide I don't have as much work to do, that I am already conscientious enough, and that it takes me approximately 20 minutes to get out the door. These justifications result in me hitting the snooze button. It is likely that you have had experiences in how fluctuating drives like sex and hunger influence your reasoning processes, such that sometimes you are convinced that you should act one way, and then when your motivational state changes you find a whole different set of reasons to justify actions that you previously determined to be unjustifiable.

The third reason is that the term justification system implies a structure and function, whereas the term belief system does not necessarily imply any such organization. Recall that justification systems are interlocking networks of beliefs and values that ultimately function to legitimize action or claims. Thus the concept of justification system explicitly connects language-based beliefs to action, whereas belief system per se does not imply such a connection. This results in clear predictions about how language-based beliefs and values should be structured and organized. For now, I will provide one anecdote. I was raised in a secular home. Although my father experienced a religious conversion as a young adult at a Billy Graham revival, by the time I was born and raised the light had flickered out and our family was not at all religious. For some combination of reasons I do not recall, when I was in the eighth grade riding the bus home one day, I announced publicly that I was an atheist and that I thought (ala Richard Dawkins) that God was an illusion. The reaction from my fellow bus riders was surprising enough that I recall it to this day. A group of fellow students became very animated, telling me I would go to Hell, that God was real, and that I needed to ask for forgiveness. Thinking about religious systems as mere belief systems, one could be surprised as this reaction. After all, why didn't others simply hear my description and sit with the notion that

different people believe different things? But if we see religious beliefs as justification systems, the charged nature of the response becomes immediately clear. My views threatened the legitimacy of their views, and if their beliefs were justified, that required action.

As this example highlights and as is also implied by the term justification, justification systems inevitably emerge in particular socio-historical contexts and in relationship to pre-existing justification systems. Almost by definition, emerging justification systems diverge from existing views at least in some ways and frequently they are explicitly defined against the status quo. Whether one is examining Jesus' justifications offered at the Sermon on the Mount, Jefferson's justifications in the Declaration of Independence, or Einstein's justifications for the theory of relativity, it is clear that each defined their claims in relationship to existing justification systems and explained why a different path is preferred.

But how broadly does the concept really apply? Are all language-based beliefs effectively characterized as justifications? For example, if I say (and believe), "There is a coffee cup on my desk," is that a justification? The short answer is that, according to the frame offered here, all verbal behaviors emerge from and exist in a context of justification. That is, every utterance is vulnerable to the problem of social justification, which is the question of whether the utterance was, in fact, legitimate from the audience's vantage point. Even a claim as innocuous as the coffee cup is on my desk can be questioned as to whether or not it is justifiable. Indeed, an individual could, upon hearing that claim and seeing my desk, argue the utterance was not justifiable. "Those are not coffee cups, they are travel mugs!" a pugnacious adversary might proclaim. Thus as soon as they emerge, all utterances exist in the context of justification and are defined in part by that context. Put slightly differently, the argument I am making is that language-based communication is functionally organized into systems of justification.

I argued above that every social institution can be examined as a justification system, meaning that its logical structure will consist of a hierarchically arranged of beliefs and values that legitimize its existence, claims, and actions. Let us apply this lens to a social institution that is immediately relevant for this book, namely the construct of psychology. The system of ideas that make up modern psychology emerged in the West in the late nineteenth century. It is by convention dated to the opening of Wilhelm Wundt's laboratory in 1879. Of course, many of the questions currently considered by psychology were reflected upon long before that time. So why does convention date modern psychology to Wundt? The reason is because, in Western academic justification systems, modern psychology is a branch of science and is thus split off from philosophy. This claim in turn raises the question: What justifies knowledge as scientific? Knowledge is scientific when it is developed and supported by logical analysis *and* the systematic collection of objective evidence (i.e., observable, measurable, reliable, valid—in a word, *scientific*). The latter component is what justifies the separation of scientific knowledge from analytical philosophy and mathematics, which focus on semantic meaning and logical coherence but do not necessarily concern themselves with directly acquiring empirical evidence.

Wundt argued that human consciousness was psychology's proper subject matter, and he trained himself and his followers in the techniques of introspection. His goal was to identify the manner in which the elemental constituents of consciousness were amalgamated to form holistic perceptions. Unfortunately, Wundt's method and the school of thought that came to be known as structuralism failed as a coherent scientific justification system. Why? Recall that one of the foundational justifications for knowledge to be considered scientific is that it is dependent on *objective* evidence. By its very nature, consciousness is a first person ontological entity. If investigator A reported some experience during his introspection and investigator B reported a different experience, there was no way to confirm or disconfirm the reports. The inherently subjective nature of consciousness clashed with the need for objectivity in science, and psychology saw its first in a long series of questions of what is justifiably considered as scientific psychological knowledge, a question that has yet to be answered satisfactorily.

Thinking about psychology as a justification system highlights another question that has long haunted the field. That is, what does psychological knowledge justify? Whereas the first question concerns issues of logic and accuracy, this question brings to the foreground questions of value and, by extension, the implications that psychological knowledge has for the way people ought to be. Consider, for example, the following questions. Does psychological knowledge justify the view that religion is "patently infantile," as Freud (1930) famously argued? Does it justify the argument that we should give up the concept of free will and simply work toward controlling the contingencies that control our behavior, as Skinner proclaimed? Does it justify the notion that we should show unconditional positive regard for our fellow humans, as Rogers maintained? The question of what psychological knowledge justifies has been even more complicated for the field than what constitutes justifiable psychological knowledge. None of the traditional frames in psychology has had the philosophical sophistication to deal effectively with this question, and the inability to deal with it lies at the heart of why so many in human psychology and other social sciences have turned toward a more postmodern perspective.

This analysis brings us to an important point of debate about the nature of psychology. Is psychology a natural science, like biology or physics? If so, then maybe psychological knowledge just is a system that describes—in a value neutral way—how animals and people work. Or is psychology a social science like anthropology and sociology? Many people argue that a value neutral stance in the social sciences is inherently problematic because knowledge is culturally constructed and inevitably linked with power and context. Finally, many have wondered if psychology's desire to be scientific about things like consciousness, love, and the human condition is misplaced and the field ultimately is more like philosophy and literature and thus more connected to the humanities. A related and implied question exists regarding the nature and difference between these three great branches of learning. I will be arguing in this book that although psychology is a unitary concept, it has three great branches, one of which is rightfully considered a natural science, one of which is squarely a social science, and the other is an applied social science profession that is

more closely connected to the humanities because its mission is explicitly to effect change rather than describe it.

Let us focus our attention for now on the difference between the natural and social sciences. From the vantage point of the unified theory, there is a fundamental difference between the two domains of knowledge, and it is a difference that was seen well by the sociologist Anthony Giddens (1987). He developed a frame that specified the difference between the natural and social sciences in a way that allows us to see clearly the nature of the problem. He forcefully argued that the social sciences are fundamentally different from the natural sciences because they confront what he called the "double hermeneutic." A hermeneutic is a social interpretive system and overlaps greatly with what I am calling justification systems. According to Giddens, physics, chemistry, biology, and other natural science disciplines (for example, comparative psychology) are single hermeneutic disciplines where scientists must develop shared systems of thought about the appropriate way to describe the natural phenomena in question. He noted these scientists can generally be safe in their assumption that the discourse about the objects per se will do little to change the phenomena under investigation. Thus the observer and observed remain in their rightful places in natural science disciplines (complications from quantum mechanics notwithstanding), and basic natural scientists generally do not need to concern themselves with the question of what their knowledge justifies because their subjects will not co-opt this knowledge and change their very nature in the process.

Giddens (1987) argued the social sciences exist between the natural sciences and humanities on the is-ought dimension (see Jones, 1965, for a clear description of this dimension) because the single hermeneutic equation changes radically when the observed is a concept-using being whose very conceptions of their actions enter into the actions themselves. According to Giddens (1987, p. 19), "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.

The double hermeneutic refers to the problem that theories of human behavior will interact with existing public justification systems, and because of this, facts and values are no longer so neatly separable. Consider, for example, the controversy that resulted following the release of Herrnstein and Murray's (1994) *The Bell Curve*, a book which stated intelligence was highly heritable and simultaneously claimed that there were significant differences between racial and ethnic groups in intellectual ability. Much of the criticism against the book was focused on the implications of the book and how they could be used to justify racial inequities and maintain the status quo. In contrast, animal researchers determining that certain strains of mice run

mazes better than others generally would not raise philosophical or ethical concerns. Such is the doubly complicated nature of developing theories about human nature.

My point in raising these issues in this introduction is twofold. First, as mentioned earlier, the concept of justification systems is crucial to the unified theory, and it is important that you have some basic familiarity with it and how to apply it. Second, my goal here is to plant the seeds in the skeptical reader that the unified theory potentially offers a different kind of theoretical framework. On the one hand, the unified theory looks like a fairly traditional, modernist approach. The ToK System is advertised as a foundationalist map of reality, and other pieces like Behavioral Investment Theory and the Influence Matrix likely appear to be (and are) cut of the same cloth as many traditional, modernist scientific paradigms in psychology. At the same time, the terminology and frame afforded by the Justification Hypothesis should appear (and, in at least some ways, is) more commensurate with concerns and perspectives raised by postmodernists and social constructionists. To see this more clearly consider the following quote from Richard Rorty, a well-known philosopher frequently enlisted by those in the postmodern or social constructionist camps to legitimize their perspective:

> [T]he only criterion we have for applying the word "true" is justification and justification is always relative to an audience. So it is also relative to that audience's lights—the purpose that such an audience wants served and the situation in which it finds itself. (Rorty, 1998a, p. 4)

One of the main areas of tension that the unified theory seeks to resolve is between modern and postmodern versions of reality. Indeed, I see the unified theory as offering a post-postmodern grand meta-narrative.

Toward a New Vision

First outlined in Henriques (2003a), the unified theory has been the subject of some debate and critical analysis in academic circles (see especially Henriques, 2004, 2005, 2008). Many scholars have lauded its breadth and novel solutions for long-standing problems. Gilbert (2004, p. 1223), for example, stated that it offered a "fascinating" and "much needed macro-level view" of psychology. Haaga (2004, p. 1229) stated that the "Tree of Knowledge taxonomy, the theoretical joint points, the evolutionary history, and levels of emergent properties are highly illuminating." Shealy (2005, p. 82) stated that for a host of reasons, the unified theory "is as bold and audacious [a proposal] as they come, and warrants serious consideration by all scholars who are interested in identifying a framework that [offers] a truly unified theory and organizational template for the sciences." Quackenbush (2005, p. 78) proclaimed that "The ToK System represents an Archimedean perch from which it is possible to assume our freedom as psychologists." And Anchin (2008, p. 815) argued that the unified theory "carries the highly warranted potential to exert a major impact on the academy [as an] extraordinary metatheory infused with its own capacities for limitless growth, change, and evolution."

At the same time, some scholars also have offered criticisms and cautions about the system. The post-Skinnerian psychologist Steven Hayes wondered if the unified theory actually led anywhere. He wrote

> [L]ook at the present effort and ask, "What effective action can now be taken? Toward what goals?" Henriques does not present actual *data* showing that thinking of the world this way is useful in a practical or empirical sense. The only goals that are mentioned are essentially coherence goals. Thus, no new treatments are described, and no new experiments are laid out. If this analysis is practically useful why can't it be shown in a real, practical way? (Hayes, 2004, p. 1232)

Hayes is thinking like a research scientist, and in that regard he has a point. As I mentioned in the preface, those that require the immediate collection of quantitative data to change their beliefs will not be moved by the emphasis in the present work on logical coherence and practical understanding. My retort is that psychological research over the past several decades has been dominated by attention to fact gathering at the expense of theoretical and conceptual analyses, and this has resulted in a number of detrimental consequences (Machado, Lourenco, & Silva, 2000). The discipline is producing oceans of information but little wisdom because we lack a big picture view that places our knowledge in a coherent context that allows for genuine understanding. It is this gap that the unified theory seeks to fill, and it is a gap that cannot be filled within the narrow confines of a research lab. That said, it is also my strident hope and expectation that the concepts and formulations articulated here can lead to rigorous quantitative analyses, and several research projects are currently underway in that regard. Ultimately though, the unified theory will be successful to the extent that it is digested by psychologists and others in a way that leads to a shared language and conceptual foundation, and to a more comprehensive view of human nature that can be useful to humanity at large.

Perhaps the most common concern expressed by scholars has been that because the unified theory is a foundationalist system, it might result in a monolithic approach that dogmatically stamps out pluralism, the diversity of ideas, and free scientific inquiry. Stam (2004), for example, argued the unified theory was a "disciplinary maneuver," not an act of science. Slife (2005) claimed that if the unified theory was adopted, certain individuals would be disenfranchised by definitional fiat and with very little intellectual justification. Strongly articulating this concern, Yanchar (2004, p. 1279) wrote

> Henriques' proposal proceeds as if such unity were an uncontroversial goal, desired by psychologists across the discipline irrespective of their theoretical and philosophical leanings. An examination of the literature of fragmentation, however, suggests that many have cautioned against this type of unification, arguing that it would undermine open scientific inquiry and essentially force psychology into a theoretical straightjacket.

Given these concerns, the problem of the double hermeneutic, and the fact that some ideological movements in psychology (and elsewhere) have had destructive consequences, it is crucial that I articulate my value base. In accordance with Quackenbush's (2005, 2008) interpretation of the Justification Hypothesis, natural

scientists, social scientists, and humanists alike need to articulate their core justi-
fications because the effective building of justification systems inevitably includes
value-based components and implications. In that regard, I am offering the unified
theory because I sincerely believe it offers pathways toward human betterment.

Let me thus proclaim a value of nondogmatism. Dogmatism prevents diver-
gent opinions from being explored and does a disservice to reasoned inquiry. The
following quote from the Buddha summarizes my views on this issue:

> Do not believe what your teacher tells you merely out of respect for your teacher. . .but
> whatsoever, after due examination and analysis, you find to be conductive to the good, the
> benefit, the welfare of all things—that doctrine believe and cling to, and take as your guide.
> (Jones, 2005, p. 45)

In short, I want to be very clear that I am not justifying the advancement of a dog-
matic monolithic system to which everyone should pledge allegiance. Instead, I
am introducing a frame that potentially offers a general background of explana-
tion that is theoretically coherent and can account for empirical observations, and I
invite critical examination of the proposal to determine its validity. As I put it in my
concluding article in the special issues of the *Journal of Clinical Psychology*:

> I believe the empathetic, respectful understanding of different viewpoints is an essential
> aspect of the scientific humanistic philosophy for which I am advocating. Such humanistic
> patterns exist in stark contrast to the misunderstandings, the hostility, and the intolerance
> of opponents so often evidenced in important debates. It is through the empathetic sharing
> of ideas that the ultimate results will be constructive rather than destructive. (Henriques,
> 2005, p. 137)

Associated with the proposal is the additional argument that, if successful, such a
unified framework would be a good thing. Currently the worldviews—the large-
scale justification systems—that guide human action and discourse are in a state
of "fragmented pluralism," meaning that they are fundamentally contradictory and
incompatible. Fragmented pluralism does not seem to be an ideal state of affairs,
and I am advocating for a shift toward an integrated pluralism (see also Mitchell,
2002). An integrated pluralism is where there are differences in emphasis that stem
from disparate needs, goals, and other idiographic factors, but each individual is
connected to the same common base of general understanding.

To articulate this idea further it is useful to borrow from Jones's (1965) attempt
to construct a more effective bridge between the sciences and the humanities. Jones
argued that the concept of "experience" is advantageously ambiguous in regards to
whether or not it primarily carries a subjective or objective meaning. "'Experience'
is ambiguous," he explained, "because, depending on context, it may refer to either
what is encountered (the object experienced) or the encounter (the experiencing)"
(pp. 33–34). Jones added two simple concepts to his formulation: background and
foreground structures. The background structures provide the context for expe-
riencing foregrounds and all experiences are defined by background–foreground
interactions. For example, if confronted with a poisonous snake (foreground), a her-
petologist, a Pentecostal worshiper, and a snake phobic would each have radically
different experiences because of their radically different background structures.

In critiquing the unified theory, Viney (2004, p. 1275) made the strong point that there is "room for concern [in] that there is no concept of unification to date that does not neglect important aspects of human experience." My retort is that the unified theory provides the ultimate map of the general background structure that can coherently frame but not imprison the infinite variety of human experience. Because all human experiences are the interaction between background and foreground structures, pluralism is both inevitable and, from a value-based standpoint, something to be wholeheartedly embraced. However, our general background structures of explanation are far more fragmented and incompatible than ideally would be the case. The argument is that the unified theory allows for currently disparate background structures to be coherently merged, while at the same time it preserves the uniqueness of the human experience and the integrity of scientific discovery.

My position also includes a value-based claim that such a shared, general background structure could potentially be of tremendous benefit to humanity. The unified theory is a system that allows for objectivity, coherence, and pluralism, and is commensurate with the foremost concerns of natural scientists, social scientists, and humanists. Rather than placing us in an intellectual straightjacket, I both hope and believe it will result in avenues for understanding and cooperation that have heretofore been unrealized.

If this overview has been successful, it has spurred in you the hope that perhaps seeing the elephant is possible after all. Maybe—just maybe—we can resolve the foundational issues and move toward an authentic unified theory of psychology. But before embarking on describing the elephant in greater detail, it is crucial that we understand the major issues that have prevented it from being seen up until this point.