

Part I

Psychology's Historical Foundations





Psychology in Search of a Paradigm

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Psychology seems to mean many things to many people. In everyday life the word *psychology* has a variety of meanings with mentalistic, behavioristic, or abnormal implications. The popular media seem to reinforce this perception. For example, we often hear the words *psychological*, *psychiatric*, and *psychoanalytic* equated and used interchangeably. We often read or see research results on smoking or drug hazards conducted by psychologists but described as medical research. Or we see instances where a psychologist, using "armchair" methodology, responds with profound advice in a newspaper to a reader in distress. Nor does the college-level introductory course to psychology necessarily dispel the confusion. Those who have taken such courses may have dim, confused recollections of IQ tests, dogs salivating, hierarchies of anxiety, the Oedipus complex, figure—ground reversals, rats running through a maze, heart rate control, peer group influence, and so on. Similarly, listing the range of positions held by psychologists does not resolve the confusion. We find psychologists in hospitals and community mental health centers, in advertising and industry, in government and the military, and in universities.

Whereas the diversity of modern psychology is a source of bewilderment, psychology's range of study is justifiably broad. As a formal, independent discipline studied and taught in universities, psychology has been in existence for only around a century and a half. However, we should recognize that people have been "psychologizing" since they first began to wonder about themselves. The long history of theories and models of psychology slowly evolved, mostly within philosophy, until the nineteenth century, when the methodological spirit of science was applied to the study of psychology and the formal discipline of psychology appeared in Western intellectual institutions. Accordingly our approach in this study is to recognize psychology's long past in antiquity and begin at the beginning.



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The emergence of psychology as a formal discipline takes us to the problem of science. Generally, *science* is defined as the systematic acquisition of knowledge. However, from a narrower perspective, the acquisition of knowledge is limited to observations validated by our senses. That is, we must see, hear, touch, taste, or smell events to confirm their existence as scientific data. This type of science is called *empiricism*, and its most controlled application is called the *experimental method*, in which variables are manipulated and measured. Toward the end of the nineteenth century, this narrower, empirical definition of science linked up with a nineteenth-century model of what psychology should study to form the discipline of psychology. Yet neither at that time nor during the subsequent years did that form of psychology win universal acceptance. Some scholars argued for a different model of psychology, a broader definition of science, or both. Thus, psychology's long past, coupled with more recent differences of opinion about the form that the discipline of psychology should take, resulted in the heterogeneous discipline we study today.

Although the variety of opinions about psychology can be confusing, it can also be a source of excitement. Psychology is a young, unsettled, and often unwieldy discipline that has a highly stimulating subject matter to investigate – human activity. The purpose of studying psychology's history is to help remove the confusion caused by the diversity of psychology. By using this diversity as a resource rather than a hindrance, our understanding of psychology's development makes contemporary psychology richer for us. There are other reasons to study the history of psychology. Knowledge of the past, per se, is certainly worthwhile and beneficial in providing perspectives. Furthermore, the study of psychology's history may help illuminate some of the questions that have concerned scholars through the ages. However, the most pressing reason to study the history of psychology may be to understand the basis of its present diversity.

Approaches to Historical Investigation

In their examination of the past, historians have proposed structures, or models, within which events may be categorized, correlated, and explained. For example, the preeminent historian of psychology E. G. Boring (1950) contrasted the *great person* and *zeitgeist* models as they applied to the history of psychology. Expressed succinctly, the great person view holds that historical progress occurs through the actions of great persons who are able to synthesize events and by their own efforts change the path of those events toward some innovation. The *zeitgeist*, or "spirit of the times," model argues that events by themselves have a momentum that permits the right person at the right time to express an innovation. Accordingly, Martin Luther (1483–1545), in nailing his theses condemning corruption in the Church to the church door at Wittenberg in 1517, may be viewed either as a formidable figure starting the Reformation or as the agent of Reformation forces already at work.



Psychology's Search for a Unifying Paradigm

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Psychology's Search for a Unifying Paradigm

A variant of the *zeitgeist* view for the history of science, proposed by Kuhn (1970), suggests that social and cultural forces develop paradigms, or models, of science at various stages and that scientific work is conducted within a given paradigm for a limited period until the paradigm is replaced. The change in paradigms is a by-product of both the cultural needs of the age and the inability of the old paradigm to accommodate new scientific findings. Accordingly, Kuhn presents scientific progress as a cyclic process. Within a given scientific paradigm that is accepted by a consensus of scientists, an anomaly arises that cannot be explained or accommodated by the paradigm. A crisis is generated, and new theories compete to replace the inadequate paradigm. Finally, a single view gains the commitment and allegiance of a group of scientists who implement a scientific revolution, and a new paradigm is accepted. When an anomaly again arises, the cycle is repeated. Thus, Kuhn proposed a relativity in the understanding of theories, facts, and observations that is sensitive to the implicit assumptions of scientists.

Interpretations and explanations of historical events certainly help us bring order to the history of psychology. As we examine psychology's past and its contemporary state, we shall refer to the various interpretations of scientific history to understand the meaning of specific intellectual movements. However, this book may be best described as eclectic in orientation. As its authors, we are not historians, but rather psychologists writing of the historical antecedents of our discipline in the clearest way we can, without any commitment or allegiance to a particular interpretation of historical events.

Fragmented Field

Although a definitive framework for psychology has proven elusive, the search for one nevertheless is often compelling. Consider these quotes from some prominent figures within the modern history of psychology:

William James (1892/1910): "A string of raw facts; a little gossip and wrangle about opinions; a little classification and generalization on the mere descriptive level; a strong prejudice that we *have* states of mind, and that our brain conditions them: but not a single law in the same sense in which physics shows us laws, not a single proposition from which any consequence can causally be deduced. ... This is no science, it is only the hope for a science." (p. 468)

Hugo Münsterberg (1914): "To reach a clear understanding as to the true meaning of psychology is a more difficult task than the solution of any special psychological problem." (p. 8)

Charles Spearman (1935): "It is generally agreed that nowadays psychology has arrived at a very undesirable degree of disunitedness. Each school, if not each individual, seeks to establish the science independently both of his predecessors and even of his colleagues. The result is that all alike have come into general discredit. Psychology is a byword of reproach among other sciences." (p. 11)

William McDougall (1936): "Even now after some forty-five years of sustained effort I am not sure that I have made any progress, have learnt anything of human nature. ... The science implied by the word 'psychology' is beyond our reach, no such science exists and no such science is possible to us. ... The present condition of psychology is deplorable." (pp. 3, 5)



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Using Kuhn's terminology from above, the desire and expectation that psychology must be a scientific study push the discipline toward an explanatory order so that valid and reliable laws or relationships can evolve. That is, psychology must aim for order and organization of the principles that govern human experience, and the framework that accommodates the progress of psychological inquiry is the paradigm for psychology at a particular point in that progress. As mentioned, the definitive paradigm that merits complete agreement among psychologists has yet to emerge.

Prevalent Paradigms

Nevertheless, we are able to look across the epochs of psychological inquiry and discern certain recurring themes or competing paradigms that seek to encompass psychology. While we will define these themes as they evolved at particular points across psychology's past, the enduring questions of psychology, specifically listed below, suggest a prevailing emphasis on what psychology should be at its core. These themes may be described generally as:

Biological in terms of material, physical bases in the workings of the body to understand and perhaps explain psychological processes.

Empirical in a reliance on experience based upon objective observation as the significant source of individual psychology.

Functional as an emphasis on practical explanations of psychological processes, without a need for elaborate, overarching theoretical structures.

Humanistic as an emphasis on higher ordered, integrative, and values-centered frameworks. *Idealistic* in emphasizing self-generating, creative thought or experience related to subjective reflection.

Again, these descriptions will be refined as we move through the various epochs of psychology's past.

Stages in the History of Psychology

In relation to the successive stages of psychology's intellectual development over time, there are various interpretations that focus on the progress and refinement of the discipline over recorded history.

One approach, presented by French philosopher Auguste Comte (1896), suggested that the developmental stages of the human mind (childhood, youth, adulthood) correspond to the intellectual ages of the human race. He thus identified three stages of intellectual progress: theological, metaphysical (philosophical), and positive (scientific). For Comte, the theological stage was a primitive but necessary starting point with causal explanations attributed to the immediate action of a supernatural being or beings. The philosophical or metaphysical stage was a transitional level within which the abstract forces of nature were understood



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through rational and logical relationships as the cause of all phenomena. In Comte's view, intellectual progress culminated in the scientific or positive stage, which sought to identify specific laws of nature through methods of empirical observation and inductive reasoning.

Another framework for considering the stages of intellectual progress in psychology was offered by Miller and Buckhout (1973, pp. 436–437). They did not refer to a theological stage as Comte did, but rather began with a philosophical stage in which they traced the history of psychology from an emphasis on "Man as Knower" (philosophical thought). From that stage, they provided a progression of scientific stages beginning with "Man as Animal" (physiology and adaptive behavior) through "Man as Machine" (computer technology) to "Man as Social Animal" (cultural and social adaptation). They finished this progression with a full circle return to "Man as Knower," but now in the context of information processing and linguistics. Thus, the history of psychology progresses from philosophical psychology, through physiology, behaviorism, and evolutionary/social psychology, to cognitive psychology.

Philosophical psychologist and psychological historian Daniel N. Robinson (1995) presented another valuable approach, distinguishing between philosophical psychology, the transition from philosophy to psychology, and scientific psychology. Each era emphasized an appeal to various sources of authority. During the time of predominantly philosophical explanations, following the contributions of the early Greek philosophers, Patristic psychology appealed to the authority of faith, and scholastic psychology appealed to the authority of Aristotle. This path culminated in the humanism and individualism of the Renaissance. During the Enlightenment transition from philosophical to scientific explanations, empiricism appealed to the authority of experience, amidst a dramatic tension between materialism and rationalism. With the emergence of scientific psychology in the nineteenth century came great reliance upon the authority of science, from which developed the various systems and specialties within the field of psychology.

In our presentation, we will seek to integrate these stages in the history of psychology by emphasizing each era as an appeal to various sources of authority. As we begin this story of our journey through psychology's past, Table 1.1 provides a summary of five of the major themes in the search for a defining paradigm for psychology (as noted above) described across major stages of history since the ancient Greeks. Given the antecedent heritage of modern psychology in both science and philosophy, both disciplinary traditions are described in the table as well. Within each historical era, we seek to highlight schools of thought and prototypical intellectual figures representative of each of the five paradigms or streams of thought, particularly those who have made a significant contribution to psychological theory, research, and/or practice. A note of caution: All of the philosophical and scientific frameworks proposed over the past 2,500 years were complex and nuanced. As we try, for the purpose of overview, to place particular positions in specific boxes of Table 1.1, we are obviously oversimplifying. Nevertheless, Table 1.1 is useful as a guide for positioning the various attempts to define psychology as we consider the major recurring paradigms throughout psychology's past. Please also note that the time blocks are estimates of the historical epochs, although some dates have specific referents, such as 146 BC when Carthage



Table 1.1 Psychology's History

	BIOLOGICAL	EMPIRICAL	FUNCTIONAL	HUMANISTIC
PHILOSOPHY				
Greek	Hippocrates	Empedocles	Protagoras	Socrates
700 вс-146 вс		Democritus		Aristotle
Roman	Humorism	Stoicism	Epicureanism	Patristics
146 BC-476 AD	Galen	Zeno	Epicurus	Augustine
Medieval				Monasticism
476–1453				Benedict
	Medieval Medicine	Natural Philosophy		Scholasticism
	Hildegard	R. Bacon		Aquinas
		Ockham		
Renaissance	Vesalius	Galileo	Da Vinci	Petrarch
1453–1687	Gassendi	Newton		
TRANSITION				ļ
Enlightenment	French Sensationalism	British Empiricism	British Utilitarianism	French Voluntari
1687–1800	Condillac	Locke	Bentham	Biran
	La Mettrie			French Romantio
				Rousseau
SCIENCE		NATURAL SCIENCE		HUMAN SCIEN
		Causal Psychology	Applied Psychology	Purposive Psycho
Nineteenth Century	Physiology	Positivism	Evolution	Existentialism
1800–1900	Müller	Comte	Darwin	Kierkegaard
	Psychophysics	Structuralism		Act Psychology
	Helmholtz	Wundt		Brentano
		Titchener		
Twentieth Century	Reflexology	Behaviorism	Functionalism	Gestalt
1900–2000	Pavlov	Watson	James	Wertheimer
		Skinner	Psychoanalysis	Humanistic
			Freud	Rogers
Twenty-First Century	Neuroscience	Experimental	Evolutionary	Positive
2000–Present	- 12 12 12 12 12 12 12 12 12 12 12 12 12	Psychology	Psychology	Psychology

Note: Five major themes are identified in the historical search for a defining paradigm in psychology, with prototypical represent The time blocks are estimates of the historical epochs, although some dates have specific referents (i.e., 146 BC fall of Carthage Western Roman Empire; 1453 fall of Constantinople; 1687 Newton's *Principia Mathematica*). Also, note the historical flow from eration of content (theory) to post-Enlightenment formulations of scientific method (research) to contemporary emphasis on approximately approx



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fell to Roman forces as well as Rome's ascendancy over the Greek Achaean League at the Battle of Corinth. Similarly, 476 is generally recognized as the fall of the western Roman Empire, and 1453 marked the fall of Constantinople and end of the eastern Roman Empire. Newton's influential *Principia Mathematica* appeared in 1687, which we identify as the tran-

Within this presentation of psychology's five paradigms, an interesting historical flow may be discerned from classical philosophical consideration of content (theory) to post-Enlightenment development of scientific method (research) to contemporary emphasis on application (practice). Theoretical considerations of the content of human nature run throughout the biological and idealistic perspectives (e.g., the mind-body problem). Questions of research method emerge especially within the empirical and humanistic approaches (e.g., natural science and human science). Issues of practical application surge through the current focus on functionalism (e.g., environmental adaptation).

Psychology's Enduring Questions

sition from the Renaissance to the Enlightenment.

Psychology's appeal during its long past and its formal definition of the last 150 years reflects an inherent need that we have to understand who we are, where we came from as a species, and how we navigate our environment, both physical and social. Surely, all investigating disciplines try to find the answers to these questions from various perspectives. However, psychology's case seems particularly compelling for us as thinking beings because it seems to address very profound insights about our identity – our sense of subjective knowing. Despite the various definitions of psychology, certain questions seem to recur over psychology's long past and especially since psychology's inception as a formal discipline in the nineteenth century. At the broadest level, these questions involve two basic issues of psychology in terms of its proper subject matter and its method of approach.

Basic Issues

The mind: In terms of what psychology should study, a fundamental starting point is the notion of the mind. Does each person possess a mind, and if so, is the mind the entity in subjective experience that gives each person a sense of identity and self-knowledge or consciousness? This question is both obvious and profound. It seems obvious because of the Greek roots of the word "psychology" (psyche), meaning the study of the mind or soul. It is profound because it gets to the essence of what it means to be human and to understand why we know that we know – that we are self-aware. If the mind is real, how does it work? Does the mind act on the external world, or does it react to external reality? Alternatively, if the mind does not exist, what explains our sense of identity, unity, and self-awareness? Do the layers of neural systems give rise to that subjective experience, so that the mechanics of the nervous system are sufficiently explanatory?

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Sources of knowledge: The second broad issue for psychology concerns the sources of knowledge: How do we acquire the content of our experiences? How do we learn and grow? Does the person interact with the environment as a kind of passive receptor, such that information comes into our nervous system and is stored, or are our internal learning processes more active and dynamic? Do we in fact act on the information coming from our experience, which involves individual interpretation, judgment, and values? These questions also directly impact our understanding of memory. Do we store experiences that generally conform to the elements of the experiences as they occurred, or do we flavor memories depending on our individual character, motivations, and values?

At such a broad level, the answers to these questions shape our further exploration of psychology, so how we address them becomes a critical determinant in our understanding. Fortunately, historians of psychology (e.g., Allport, 1940; Coan, 1968; Henley, 2019) have organized and identified many of the recurring themes and enduring questions that articulate in more depth the various directions of inquiry within the field. Watson (1967, 1971) offered prescriptions, or dimensions for classifying psychological issues, by examining and describing the relationship between scientific findings and the prevailing cultural forces of a given age. Essentially, Watson's strategy evaluated a number of possible underlying assumptions and consequent implications of theoretical positions. Using a similar approach within the broad issues of the mind and the sources of knowledge, we may identify four classes of questions and solutions proposed by various thinkers. We offer only a summary of them here, since we will be coming back to them as our story of psychology's history unfolds. The intellectual domains of metaphysics, ethics, epistemology, and anthropology have fed the richness that is the integrating platform we know as psychology. The questions arising from these intellectual domains have recurred with fair consistency throughout the history of psychology and are summarized in Table 1.2.

Table 1.2 Enduring Questions in Psychology

Domain	Enduring question	
Metaphysics	Naturalism – Supernaturalism	
	Fatalism – Finalism	
Ethics	Relativism – Universalism	
	Utilitarianism – Personalism	
Epistemology	Empiricism – Rationalism	
	Reductionism – Holism	
Anthropology	Body – Mind	
	Determinism – Voluntarism	
	Irrational – Rational	
	Amoral – Moral	
	Nature – Nurture	
	Retrospective – Prospective	
	Nonentity – Identity	
	Suffering – Flourishing	