

1 Understanding Psychology's History

What you are, we once were.

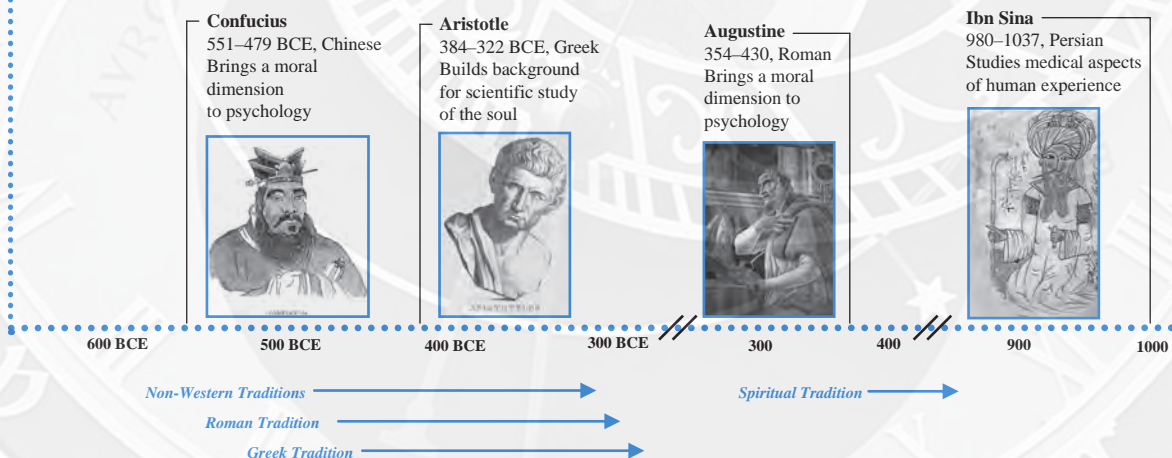
What we are, you will be.

—An inscription in the Crypt of Capuchin monks in Rome

LEARNING OBJECTIVES

After reading this chapter, you should be able to:

- Understand what knowledge is and distinguish among its several types
- Understand psychology's development as inseparable from society and history
- Appreciate the complexities and controversies of the historiography of psychology
- Apply psychology's historiography to contemporary issues and modern challenges



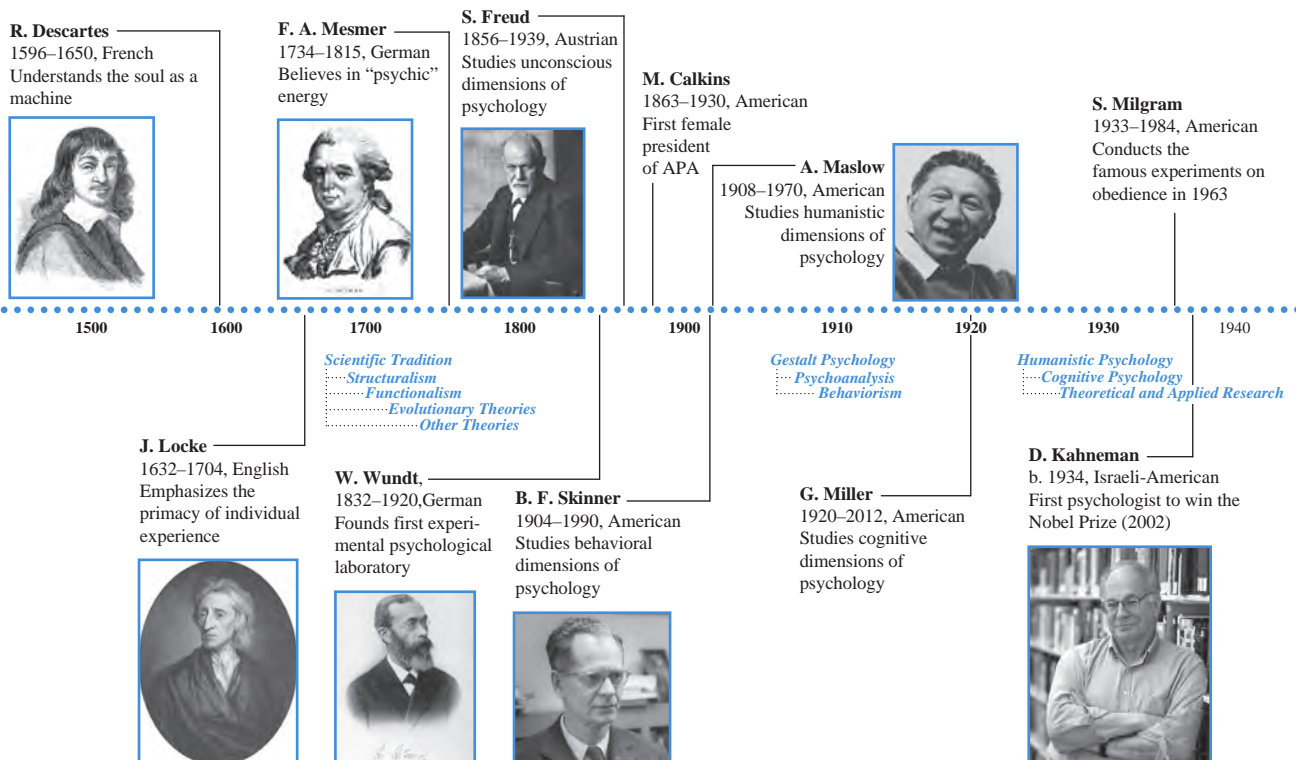
In human years, psychology as a discipline is just about 18 years old, maybe 19. It is only entering an early period of maturity, when a few accomplishments appear promising, several mistakes could be forgivable, and ambitions seem achievable. Like every young person, psychology once was an infant. Thinkers of the past—philosophers, natural scientists, and doctors—helped young psychology take its first steps. Mathematicians and physiologists guarded psychology during its childhood. Psychology learned the science of experiment and the beauty of measurement. Other disciplines began to acknowledge their new peer. It gained its own voice. First shy and insecure, the voice of psychology grew stronger with every decade. Psychology began offering practical solutions to human problems. Some of its accomplishments became noticeable. Setbacks were common and obvious. The ambition of beautiful psychological theories was often crushed by the stubborn ugliness of facts. Psychology was sometimes trying to do a lot with too little knowledge and tools. Yet, as in human life, these victories and mistakes have been building psychology's experience and confidence.



In real years, psychology's history is spread through centuries. Do we really need to travel that far back in history? What's the point in remembering things of the past? Studying history is not only about remembering. Yes, by going back, we preserve and publicize the historical record of our discipline. However, we also examine history to better understand and relate to our today's life; to see a bigger picture in a kaleidoscope of contemporary approaches, theories, and their applications; to be more tolerant to the persuasion of today's capricious fashions; and maybe to avoid repeating at least some of psychology's mistakes. Studying history is also about looking forward. And this is probably one of the most exciting features of our journey, which we are about to undertake.

What does the history of psychology study? What facts from the history of psychology are preserved? Why do we select some facts and overlook and even ignore others? When studying psychology's history, do we traditionally focus on the Western courtiers and overlook the knowledge accumulated in other parts of the world? What can we do to make our knowledge more inclusive and diverse?

Let's try to answer these questions together.



Prologue

What Do We Study?

History is the study of the past. Historians gather, analyze, and interpret facts, then they present them to the reading, listening, and watching world. Historians focus on civilizations, cultures, countries, events, and great individuals. What does the history of psychology focus on?

Focusing on Knowledge

Describing psychology's past is first of all undertaking a scientific investigation of psychological knowledge from a historic perspective. **Knowledge** is information that has a purpose or use. **Psychological knowledge**, defined broadly, deals with information related to mental phenomena, or as they are commonly labeled, subjective experiences, or activities of the mind. We will learn how people developed their understanding of their subjective experiences and associated behaviors. This knowledge was constantly evolving. Take depressive symptoms as an example. Early knowledge was based on theories attributing depression to an imbalance of vital liquids in the body. Later theories of the 19th century referred to weakness of the nervous system as the cause of depressive symptoms. Yet more recent studies focused on genetic and environmental factors. It is naive to assume that today's knowledge is final. It is not. It is evolving and becomes history at this very moment.

Studying psychological knowledge, we will examine major psychological schools, including structuralism, functionalism, behaviorism, Gestalt psychology, psychoanalysis, cognitive psychology, and humanistic psychology—these and some other labels should be familiar to you from an introductory psychology course. We also look at a wide range of ideas and theories created by those whose work did not necessarily fit into these convenient categories.

Understanding Historical Contexts

Knowledge is inseparable from the social, economic, and cultural contexts in which it develops. Early studies of intelligence at the beginning of the 20th century took place mainly because compulsory education of children became reality in many countries, and their governments needed a scientific assessment of the children's learning abilities. Psychologists in Nazi Germany in the 1930s were ordered to do research justifying the intellectual supremacy of the Aryan race. Cultural and legal taboos for many years prevented psychologists from studying and publishing on human sexuality.

To understand psychology's history is to recognize its social and cultural environment. Later in this chapter, we will turn to three important features of the historical context within which psychological knowledge developed: (1) society's material resources, (2) social climate, and (3) academic tradition of the time.

Examining the Roots

How far back in history should we travel? Most attention is paid to psychology's past 150 years. It should make sense because psychology as an academic discipline received its initial recognition by the end of the 19th century. However, its development had begun much earlier. Scholarly papers, books, letters, and diaries written hundreds of years ago reveal the amazing breadth of knowledge that people acquired in the past about their inner experiences, emotions, dreams, rational and irrational decisions, insecurities, and the whole range of normal and abnormal psychological symptoms.

To understand psychology's development, we look at its interdisciplinary roots found in philosophy, biology, medicine, physics, religion, and many other fields. Although we study history, our attention is also on today's psychology as an academic discipline, an applied field, and a profession.

Remembering Great Individuals

Individual scholars—psychologists, philosophers, doctors, theologians, neurophysiologists, mathematicians, sociologists, and others—contributed to psychological knowledge and psychology as a discipline. Individual discoveries enhanced global knowledge. In the 19th century, most researchers believed that the main cause of dementia (which is a significant cognitive and behavioral impairment) was a “wrong” set of neuromagnetic processes in the brain. In 1901, the German doctor Alois Alzheimer dismissed these views after he found that certain structural abnormalities in the brain were likely to be major contributors to the symptoms of dementia. Alzheimer's discovery in medicine produced new knowledge explaining the connection between brain pathology on the one hand and the human mind on the other. Most probably, if Alzheimer hadn't made his discovery, someone else would have. However, he was the first, and that's why his name, as well as his research that led to a discovery, remains in history.

Well-known and obscure theories, ambitious hypotheses, remarkable observations, and spectacular experimentations—all of them were the creations of individual scholars and their resourceful minds. Books and articles they published, letters they wrote, and lectures they delivered are like a mirror of their thought processes, concerns, aspirations, and hopes, all of which matter in our understanding of psychology's past and present.

Understanding psychology's past is also about recognizing several of its most recurrent topics and themes. They occupied the minds of scholars for centuries. What are they?

Recurrent Themes

Within the diversity and complexity of the problems that psychology has tried to address, at least three most important themes or problems can be identified. We describe these problems only briefly now to return to them later in the book.

The Mind–Body Problem

Research shows that people who are ill but believe that they will get healthy again tend to recover somewhat better than sour pessimists (Bryan, Aiken, & West, 2004). Is this an example of how our mind affects our body, or is it just that healthy people tend to be more optimistic? And what is optimism anyway? Is it a kind of mental power or simply a set of physiological reactions of the brain? The mechanism of the mind–body interaction is one of the most common themes in intellectual debates in the history of science and one of the most intriguing problems in the history of psychology (Gergen, 2001).

For centuries, many scholars believed that experimental science was incapable of studying the “higher” mental processes, including what we call today values, optimism, imagination, or beliefs. How could one, they argued, measure compassion or free will? Others disagreed and believed in the possibility of the scientific study of the mind through research on the nervous system and the brain. These opposing views represented a global scientific and cultural divide. One group, as you can imagine, was often accused by the other of making vulgar attempts to reduce the complexity of mental life to the movements of molecules through fibers. This group, in response, accused its critics of backwardness and ignorance. Today, this debate continues, although psychologists tend

not to use such emotional accusations. Even using the most advanced methods of neurophysiology and computer science, psychologists have a challenge of measuring the subjective elements of a person's experience (Kurzweil, 2005).

The Nature–Nurture Debates

Are we born with certain qualities such as shyness or propensity for violence, or do we form them primarily through experience? The debates about complex interactions of natural (biological) factors and social (cultural) influences have always been the focus of psychology's attention. The essence of the nature–nurture debates was not necessarily about the dilemma of whether it is exclusively nature or nurture. Scholars of the distant past as well as psychologists of more recent times tended to view human beings as products of both the natural world and the social environment (Münsterberg, 1915). The assumption about the dual impact of natural and social factors is generally accepted today. Most debates focus on the extent or degree of the impact of such factors and on the ways our knowledge can be applied to practice.

The Theorist–Practitioner Debates

Should scientists be concerned with practical applications of their research? Two traditions in science influenced psychology. The first tradition maintained that science should be, above all, a rational pursuit of a true understanding of nature. Whether or not there are practical results of this pursuit is not science's key concern. The other tradition asserted that science should, above all, serve to improve humanity (Morawski, 2002). Psychologists of the past tended to accept both traditions. Yet some of them were more committed to theory, while others were more actively involved in practical pursuits. For many years after its inception in 1891, the American Psychological Association (APA) witnessed heated debates about the degree of psychology's practical involvement outside the university laboratory (Benjamin, 2002; Griffith, 1921). Some psychologists believed that the true value of their research is only in its applications. Others criticized their colleague-practitioners for producing research to “please” their sponsors. As we will see in Chapter 5, more than 100 years ago, psychologists who did a paid research for Coca Cola were criticized for “selling out” science to help a big corporation in winning a legal case.

In summary, we have seen that a history of psychology is a scholarly investigation of this discipline's past, including its historic contexts, great individuals, and multidisciplinary roots. We also pay significant attention to the study of knowledge. Yet what is knowledge and how can we study it?

Four Types of Knowledge in Psychology

People use psychological knowledge for different purposes. Imagine a shaman who tells his fellow villagers that their dreams should reveal conversations with their dead ancestors. At the same time, in a different place, a licensed therapist tells a client that her dreams are generated by her forebrain and should be relevant to her anxiety problems. Now, before reading further, answer this question: Which of these two individuals conveys knowledge? An easy answer could be, of course, the clinician. The shaman conveys inaccurate, erroneous information, while the therapist talks science. Yet if we use the definition of knowledge, then both individuals conveyed knowledge regardless of who was right or wrong, or accurate or not. For centuries, different people and groups observed human behavior and experience, described them, and then used this knowledge to pursue specific purposes. As a result, several types of psychological knowledge have emerged (see Table 1.1). Let's examine them from both historic and contemporary perspectives.

Table 1.1 Four Types of Psychological Knowledge

Type of Knowledge	Sources of Knowledge
Scientific	Knowledge accumulated through research, systematic empirical observation, and evaluation of a wide range of psychological phenomena. Facts are obtained with the help of scientific research methodologies and rigorous verification by multiple sources typically including peer reviewers.
Popular (or folk)	Everyday assumptions about psychological phenomena and behavior. Such assumptions are often expressed in the form of beliefs, evaluations, or prescriptions.
Ideological (value-based)	A consistent set of beliefs about the world, the nature of good and evil and right and wrong, and the purpose of human life are all based on a certain organizing principle or central idea.
Legal	Knowledge encapsulated in the law and detailed in rules and principles related to psychological functioning of individuals. Legal authorities commonly establish these rules and enforce them.

Scientific Knowledge

The first type of psychological knowledge is **scientific knowledge**. Its major source is science, or systematic empirical observation, measurement, and evaluation of facts. It is rooted in the scientific method, which is based on the use of cautious research procedures designed to provide reliable and verifiable evidence (Gergen, 2001). Supporters of the scientific method saw it as the exclusive arbiter of truth in psychology as a discipline. However, what was accepted as scientific varied greatly throughout history.

Take emotions as an example. Two thousand and five hundred years ago, the ancient Greek philosopher Democritus believed that the movement of atoms of different shape and speed stood for various emotional states. Four hundred years ago, René Descartes, the French-born scientist, associated emotions with the activities of animal spirits passing through the vascular system. According to the James–Lange theory of the late 19th century, there were bodily reactions that evoked experiences that a person then labeled as emotions. The Cannon–Bard theory of the 20th century explained emotions as signals causing bodily reactions. A century ago, the German psychologist Wilhelm Wundt identified and measured emotions as elementary foundations of human subjective experience. In the 1920s, the physiologist Ivan Pavlov in Russia and the psychologist John Watson in the United States described emotions as learned reflexes. Can you tell which of these views represented scientific knowledge and which did not?

In fact, all of them represented science. However, it was a developing science. All these theories attempted scientific yet incomplete knowledge of emotions. New theories produced new scientific knowledge. This does not make the earlier theories unscientific. They were probably less accurate. Scientific knowledge can be inaccurate for at least three reasons: (1) incorrect assumptions, (2) imprecise descriptions, and (3) poor applications. Look at three historic cases, for example.

Mesmerism: The Science of Incorrect Assumptions

The French physician and innovator Franz Anton Mesmer claimed in his 1766 dissertation that human illnesses might be caused by the disruption or blocking of the normal flow of an invisible

body fluid, which he called animal magnetism. A trained physician, Mesmer believed that he should be able to find these “disruptions” and “blocks” and then remove them by touch (Mesmer, 1766/1980). Mesmer also claimed that he had the ability to magnetize objects and patients. He thought that this ability was a learned skill. Many apparently successful demonstrations of his method were well documented and led to Mesmer’s immense popularity in the late 18th century (Wampold & Bhati, 2004). However, the skeptics were undaunted. The Royal Commission decided to independently study the alleged animal magnetism and later found no evidence to support Mesmer’s claims.

Mesmer had no intent to deceive people. His theory was, in some way, an extension of the emerging theories of physics. Sir Isaac Newton postulated gravity as an invisible force between objects and showed how the gravity of the moon and sun formed the tides. Similarly, Mesmer thought that gravity affected the fluids in the body. It was an incorrect assumption. He was incorrect about his demonstrations. Many of his patients reported disappearance of pain and other signs of improvement. But it was not because of magnetism. Contemporary science is likely to suggest that the patients reported improvements probably because they believed in their own recovery or wanted to show progress. This effect of a change caused by an anticipation of a change is today called the **placebo effect**. There are research centers, like one at Harvard, to study this effect (Raicek, Stone, & Kaptchuk, 2012). (We will discuss Mesmer’s and similar views in Chapter 4, and the placebo effect will be discussed in Chapter 12.)

Neurasthenia: Imprecise Descriptions in Psychology

For a significant part of the 20th century, **neurasthenia** as a clinical diagnosis stood for a cluster of symptoms involving anxiety and depression. Clinicians attributed these symptoms to the weakness of the nervous system, assuming that science in the future would identify the specific neurological causes of it. Neurasthenia has been a popular and convenient diagnosis worldwide. Yet despite its widespread use, there was no agreement on the “core” characteristics of neurasthenia (Starcevic, 1999). It was a very imprecise label that allowed professionals to include practically any psychological symptom they saw fit under its umbrella. Today, neurasthenia as a diagnostic category has been largely abandoned. (We will discuss neurasthenia in Chapter 6.)



Pavlov’s Laws: The Science of Poor Applications

With the aid of multiple experiments conducted on animals placed in isolated chambers, Ivan Pavlov, a Nobel Prize winner from Russia, discovered, as he believed, the laws of the formation, preservation, and extinction of reflexes. Using his findings, he developed a theory of the higher nervous activity associated primarily with the cerebral cortex of the brain. Pavlov described three basic characteristics of nervous processes: strength, balance, and agility. He thought that human behavior could be described in terms of strength, balance, and agility of the nervous processes. His theory appeared to many as scientifically sound and unfaultable (we will examine it in detail in Chapter 7). However, later studies showed that his theory did not really explain behavior. A “strong and balanced” individual in one set of circumstances may be “weak and imbalanced” in another. Besides, physiologists using Pavlov’s theory couldn’t find specific physiological mechanisms in the brain representing the strength, the balance, and the agility of the nervous system.

At certain points in history, these three apparently scientific theories were substantially revised or, in case of mesmerism, discarded (see Table 1.2).

Scientific knowledge is supposed to be accumulated through research, systematic empirical observation, and evaluation of a wide range of psychological phenomena. Facts gathered by

Table 1.2 Anton Mesmer, Neurasthenia, and Ivan Pavlov: How Scientific Ideas Are Dismantled

Theory, Views	Critical Points
 <p>Anton Mesmer formulated a theory about people's ability to magnetize objects and bodies and thus affect bodily processes. Supporters considered his views scientific. Many people today continue to believe in different forms of bodily magnetism.</p>	<p>Careful investigation showed that the improvement in symptoms was not caused by magnetism as claimed by Mesmer. In addition, there was no verifiable evidence of the existence of the effects of magnetism.</p>
<p>The term <i>neurasthenia</i> was widely used by clinicians to explain the etiology of several dysfunctions, including various forms of anxiety and depression.</p>	<p>The concept of weakness of nervous system is vague. The symptoms included in neurasthenia are extremely diverse, and clinicians interpret them according to their cultural or educational backgrounds.</p>
 <p>Ivan Pavlov's theory suggested the existence of several processes, including the strength, the balance, and the speed of processes within the nervous system.</p>	<p>The assumptions about the strength, balance, and speed of nervous processes did not find many practical applications and turned out to be rather simplistic.</p>

scientific psychology are obtained with the help of scientific research methodologies, which require rigorous verification by multiple sources. However, relevance of these facts, as well as relevance of scientific knowledge, was continually changing with time (Kendler, 1999).

Popular Beliefs

Another type of knowledge manifests in **popular (or folk) beliefs**, often called *folk theories* because they represent a form of “everyday psychology” created by the people and for the people. Main sources of popular beliefs related to psychology are shared assumptions about certain aspects of behavior and experience. Some of these assumptions, such as the belief in the connections between facial features and personality traits are very broad. Others, such as a friend's recommendation about how to ask a professor for a term paper's deadline extension, are very specific. Popular beliefs are, to some degree, your working assumptions helping in understanding yourself and other people.

Contents of Popular Beliefs

Many popular beliefs tend to be accurate and receive support from science (Lock, 1981). For instance, from our own experience we may learn about the harmful impact of continuous stress, the inspirational value of hope, and the importance of trust in friendship. Other popular beliefs are inconsistent or inaccurate or even contradict scientific knowledge. For example, some people today believe in extrasensory perception. Scientific psychology has little evidence in support of this belief. Some people think that parental mistakes can cause schizophrenia in children when they become adults. Science disagrees and points at a combination of biomedical factors as likely causes of this illness. Scores of parents believe that if you startle a child, it may cause the child's permanent stutter. Science is skeptical of this claim. Some beliefs go away easily; others change slowly. Take, for example, popular assumptions of the past about "irreparable harms" of teenage masturbation—in particular, the belief that masturbation causes mental retardation or blindness. Such beliefs continue to have a significant impact on behavior of millions of people around the globe. Contemporary science, however, finds little evidence that masturbation should cause psychological or physical abnormality (Laqueur, 2004).

Historically, before the birth of mass communications in the 20th century, scientific knowledge related to psychology was mostly elitist. In traditional communities, a few self-appointed experts shared their knowledge about psychology and gave advice. They advised on marital problems, child rearing, emotional problems, sleep disturbances, matchmaking, and other issues. Such experts were called by different names in different times and cultures. They were astrologists and shamans, psychics and spiritualists, and mediums and witch doctors. Today, as happened many years ago, they claim that they can heal depression or anxiety with magical words or magnetism. They advise people not to take trips or get married because of a certain lineup of planets. Some of them claim that they can communicate with spirits of the dead.

Pop Psychology

Psychological knowledge designed specifically for mass consumption is *popular psychology*, or simply **pop psychology**. In the history of psychology, a clear demarcation line between scientific knowledge and popular beliefs began to emerge in the end of the 19th century, which was the dawn of the era of mass literacy in economically developed countries (Coon, 1992). Today, most information about psychology reaches people through the media—television, radio, popular books, papers, and the Internet. This information tends to be simplified and even sensationalized. An emphasis on simplicity and sensationalism is the essence of pop psychology.

Scoreless pop psychology sites and blogs have emerged in many languages. They advise on a wide variety of psychological issues, ranging from how to teach a husband good manners to how to cure anxiety symptoms. For more than two decades now, television or radio talk shows featuring psychology experts attract multimillions of fans. Many contributors to such blogs and shows have degrees in psychology or medicine, and it seems that some information on the web comes from reliable sources and contains scientific information. Nevertheless, many media sources seek sensationalism to increase their ratings. It will take your scientific knowledge to filter reliable facts from pop psychology.

Today, as many years ago, popular beliefs continue to influence people's lives, inner world, daily practices, and decisions. Folk theories about child rearing, marriage, mental illness, sexuality, dreams, causes of success, or remedies for "bad" behavior continue to influence billions of people. Therefore, in this book, while focusing on scientific knowledge, we continually return to its interaction with popular beliefs.

Ideology and Values

More than 80% of people in China believe that it is up to a woman to choose her husband. In contrast, only 11% of people in Pakistan agree with this view according to an international survey (Pew Research, 2012). These statements are likely to reflect the respondents' **values**. In contrast to folk beliefs, values stem from established, stable perceptions about the world, the nature of good and evil, right and wrong behavior, purpose of human life, gender roles, and so forth. **Ideological (value-based) knowledge** is different from popular beliefs because it is grounded on a set of unwavering principles often supported by tradition or powerful authorities. There is another particularly important difference between values and scientific knowledge: Values do not require factual scrutiny. Every ideology tends to adhere to some principles and values that are not questioned. For example, the deep-seated belief in the existence of the soul as a nonmaterial and immortal substance is a value. A belief in the necessity of moral behavior now to avoid misfortune tomorrow is a value too. A belief that homosexuality is a sin that has no place in society may also be a value.

The power of ideology to affect all kinds of knowledge is significant. History shows that people could ignore or reject science in favor of ideology. Some may turn ideology against science. The Nazi ideology in Germany in the 1930s encouraged scientific research in favor of discrimination against ethnic minorities and the mentally ill. In Communist China in the 1960s, a rare translation of a Western psychology textbook contained a specially written concluding chapter titled "The Backwardness of Present Capitalistic Psychology." Chinese psychologists were instructed to assess Western psychology negatively from the "correct" ideological position (Whittaker, 1970, p. 758). In the Soviet Union until the 1980s, psychologists writing papers or dissertations had an obligation to quote Karl Marx or other Communist leaders. At the same time, the Communist Party assigned a number of Soviet psychiatrists to treat political dissidents (the opponents of the Communist regime). Many civil rights activists, who did not support Communist ideology, were forcefully hospitalized to mental institutions. The official diagnosis read as follows: Schizophrenia, slowly progressing (sluggish) type, delusion of reformation. These patients received strong medications to suppress their "delusional thoughts" about democracy and political reforms (Bloch & Reddaway, 1977). In fact, the government created a new category of mental illness based on ideology.

Do not think that ideology did not affect knowledge and education in the United States. In the 19th century, *drapetomania*, or pathological craving for freedom, was recognized by some doctors to diagnose black slaves who had made repeated attempts to escape. Some U.S. public schools cannot teach evolution because it conflicts with some people's fundamental values (Tryon, 2002). Besides politics or custom, where do these values come from?

Religion and Values

Religion is probably the most powerful source of values. People routinely use religion to explain their daily experience, motivation, and behavior (Harrington, 1996). Behavioral prescriptions, such as moderation in needs, respect for strong family ties, frugality, discipline, and thrift, are common in the doctrines and practices of Christianity, Judaism, Confucianism, Hinduism, Sikhism, Islam, Buddhism, and other religions. Views of psychological illness are also affected by religious beliefs. Within the Christian tradition, as an illustration, the core beliefs related to sin, confession, and repentance motivate lots of individuals to believe that some severe forms of mental illness are God's punishment for inappropriate behavior (Shirayev & Levy, 2013). While many people today turn to licensed therapists for help, others seek religion instead for moral and behavioral prescriptions. According to Hinduism, all things constantly change and influence one another, yet there is an inner logic, cause-and-effect sequence of events called *karma* (Chaudhary, 2010).

How significant is the impact of religious values on knowledge? It depends, of course, on specific individuals and the degree of their commitment to religion. Globally, about 13% of people consider themselves atheists, twice as many as the percentage in the United States. The highest number of atheists, which is 47%, is in China; Japan has 31% of them. The lowest percentage of atheists is in Iraq and Afghanistan, which is about 1%. In Saudi Arabia, however, 5 people in 100 said that they are atheist. Religiosity is highest among the poor. It is high, to a lesser extent, among the less educated (Win-Gallup International, 2012).

Values may or may not translate into actual behavior. Ideological or religious beliefs do not always guide people's every decision. Indian psychologists admit the paradoxical nature of their society in which everyday life is conducted between profound mysticism and spiritual nature of religious values on the one hand and ordinary, pedestrian lives on the other. The worship of goddesses and the abuse of women coexist. Asceticism is challenged by consumerism. The profound sense of fairness is numbed by daily corruption. These scholars maintain that spirituality and religious passion have not been playing a crucial role in the improvement of the ordinary person (Chaudhary, 2010; Ramanujan, 1989). Perhaps India is not an exceptional case in this context.

Values definitely played a major role in the history of psychology. Some values served a constructive, humanistic purpose encouraging peace and bringing hope (see Chapter 12). Other values justified harassment and abuse of individuals who acted or thought differently than the values prescribed. In Chapter 6, you will find examples of authorities in the past who discriminated against individuals with symptoms of mental illness.

Legal Knowledge

Finally, **legal knowledge** represents the fourth type of judgment related to psychology. This knowledge appears in legal prescriptions established by authorities (ranging from tribal leaders to state governments). Legal knowledge provides reasons for important decisions about life and death, marriage and divorce, people's rationality, sanity, ability to raise children, choice of a sexual orientation, and so forth. For example, in the United States as well as in many other countries, it is legal for a person who is 18 years old to marry. People in most circumstances don't plan to marry at 16 and consider the very idea of an early marriage inappropriate. In some poor countries, significant number of children, especially girls, get married early, even before puberty. In many countries, physical punishment of children is accepted as a legal and effective method of upbringing. In most countries today, however, physical abuse of a child is illegal. The legal definition of death in most Western societies has little to do with people's religious beliefs. No matter what we think of the soul and immortality, the legal indicator of physical death is the extinction of activity in the brain (Truog & Miller, 2008). Furthermore, the legal definition of insanity is different from science-based definitions of mental illness.

Legal rules are not likely to explain what life and death are. Court documents do not have to provide scientific information about why individuals in the United States are allowed to consume alcohol when they reach 21 years of age but not earlier. Yet legal rules establish boundaries of acceptable human behavior and affect customs and practices in millions of families. This knowledge directly affects their judgments, emotions, and thoughts. From the legal standpoint, homosexuality was considered an illness in the United States for most of the 20th century. In the Soviet Union before 1990, a person could end up in prison for being openly gay. In many countries today, governments continue criminalizing homosexuality.

Next, we will compare the four types of knowledge in psychology and apply them to contemporary contexts. But before moving forward, please check your knowledge by answering the following questions. More practice questions with answers are posted on the supplementary website.

CHECK YOUR KNOWLEDGE

1. What are the three recurrent themes in psychology's history?
 - a. The mind–body problem, the nature–nurture debates, and the theorist–practitioner debates
 - b. The science versus science fiction, the philosophy–physics debate, and the legal–theoretical paradox
 - c. The nature–nurture debates, the knowledge–belief paradox, and the society–individual problem
 - d. The theorist–practitioner debates, the ideology–science debates, and the legal–illegal dilemma
2. The term *neurasthenia* referred to
 - a. body and mind paradox.
 - b. weakness of the nervous system.
 - c. placebo effect.
 - d. all of the above.
3. What did the diagnosis *drapetomania* mean?
 - a. Strong nervous system
 - b. Tendency for prejudiced behavior
 - c. Pathological craving for freedom
 - d. An abnormal fear of spiders
4. Give an example of a (1) scientific fact and (2) popular belief related to human behavior.
5. Why is *mesmerism* viewed as unscientific today?
6. Define pop psychology.

The Interaction of the Four Types of Knowledge

Ask a few people a simple question: “What is a dream?” You should expect to receive different answers. Probably you will receive quick and simple replies, such as “A dream is when you sleep,” or you might hear something mysterious, such as “Dreams are your spiritual self.” These answers probably reflect some people’s popular knowledge. You will also hear refined responses, including “A dream is a special form of brain activity,” and even more sophisticated ones like “It is a series of images occurring involuntarily in the person during certain stages of sleep.” These answers would stand for scientific knowledge. You can imagine how many different answers we can find when we collect views of dreams from a historical perspective.

In a contemporary American city, many individuals who seek treatment for an alcohol-related addiction are likely to seek professional help. Professionals use scientific knowledge to diagnose addictions and treat them. In other situations, some people turn to popular beliefs. In a traditional Native American therapeutic procedure, individuals would sit around hot rocks and then pour water on them. Steam from the rocks was believed to purify the people who sit nearby, and an addiction would evaporate through sweating (Jilek, 1994).

Science does not support this belief, however. Studies in Nigeria, in another example, showed that in the recent past a vast majority of health care workers believed that witchcraft and evil spirits were causing people’s abnormal psychological symptoms (Turner, 1997). Scientific and

popular beliefs often coexist in the same individual. Take as another example the main principles of Scientology, which is a contemporary religion. One of the goals of healing prescribed by this religion is *dianetics*—a systemic method of identifying the causes and relieving many of an individual's mental, emotional, or psychosomatic problems. Fundamental to the system is the concept of the *engram*, which is defined as a permanent trace left by a stimulus on the protoplasm of a tissue. It is believed that such engrams appear during periods of psychological distress or trauma and lie at the root of all mental disorders (Hubbard, 1955). Most educated people trained in science regard dianetics as a kind of ideology or folk belief because dianetics fails to meet the requirements of the scientific method, which is the investigation and acquisition of new knowledge based on physical evidence. Yet people who follow Scientology, many of them highly educated, accept dianetics wholeheartedly.

As you can see, individuals may consider their religious values as scientific knowledge and believe in their accuracy and validity. In the history of psychology, the four types of knowledge are deeply interconnected. Commonsense assumptions, such as how to fight profound sadness or how to interpret dreams, have always been part of people's knowledge about their inner life. A continually changing flow of new facts and opinions constantly changed these opinions. At certain times in history, as we will see later in the book, value-based doctrines, often embedded in organized religion, have had a tremendous impact on popular, scientific, and legal knowledge. Value-based, deep-seated cultural knowledge tends to resist rapid changes, but it transforms too. Legal psychological knowledge changes along with continual transitions taking place in society.

All four types of knowledge remain inseparable parts of the social environment as human civilization developed.

IN THEIR OWN WORDS

La Mettrie on the Power of Knowledge

Nothing, as anyone can see, is so simple as the mechanism of our education. Everything may be reduced to sounds or words that pass from the mouth of one through the ears of another into his brain. (La Mettrie, 1748/1994)

The French philosopher Julien Offray de La Mettrie (1709–1751) believed in the importance of scientific knowledge and had unbound optimism about the unlimited power of education. Today, do you share his optimism, and what are the most obvious limits of scientific knowledge?

Society and Psychology's History

The social, political, and academic atmosphere unique to particular historic times and geographic locations was crucial for psychology as a discipline and psychological knowledge in general (Danziger, 1990; Leahey, 2002). At the end of the 19th century in Germany, for example, experimental, laboratory-based psychology won support in most universities. In France, it was clinical, not experimental, psychology that received support from state-sponsored universities. Why did psychology develop in different ways in these two countries? At least three factors should help us understand the complex interaction among society on the one hand and psychology on the other: (1) resources, (2) social climate, and (3) academic tradition (see Table 1.3).

Table 1.3 Factors Contributing to the Development of Psychology as Science

Resources and infrastructure	Availability of resources creates conditions for the development of science and inclusion of psychology as a scientific discipline.
Social climate	Favorable social climate creates an opportunity for psychology to be viewed and treated as a legitimate discipline and profession.
Academic tradition	Presence of educated professionals sharing the same principles of understanding of psychology constitutes an academic tradition; this creates a great opportunity for others to join in and develop this tradition further.

Resources

Somebody has to pay for research. The availability of resources such as money, laboratories, equipment, and educational and training facilities is important for the development of any academic discipline. History shows that science-based psychological knowledge developed rapidly in countries and regions with substantial resources invested in education and science. The advancement of knowledge in ancient Greece was inseparable from the financial wealth of Athens and other major Greek cities. The Italian Renaissance in arts and sciences occurred at the time when the bankers of Florence had accumulated enormous wealth (Simonton, 1994). Sultans of the Ottoman Empire and the Chinese emperors invested in science and sponsored court scholars. The wealth accumulated in North America at the beginning of the 20th century stimulated the rapid development of its universities. Government support and private donations were significant contributing factors too.

Some researchers, of course, did not need generous help from big universities or resourceful authorities to run their experiments or create theories. Among the most recognized scholars who did not associate themselves directly with a university were Herbert Spencer in England and Benedict Spinoza in the Netherlands. Hermann Ebbinghaus of Germany conducted his renowned memory experiments before he became a university professor. Yet the vast majority of scientists were recipients of financial and organizational support from either government or private sources. Consider a simple illustration related to early experimental psychology. To study visual or auditory thresholds in the 19th century, a psychologist had to have a specially designed dark and quiet room and relatively expensive research equipment. After Wilhelm Wundt created the famous psychological laboratory in Leipzig (Germany), by 1879, international scholars visiting his lab wanted to repeat his success in their home countries. They pursued two major goals. The first one was academic: to learn more about Wundt's experimental method. The second was practical: to raise funds and build experimental research facilities in their home countries. Many of these scholars were successful in their financial pursuits (Griffith, 1921).

Money and big lecture halls alone will not necessarily move science forward. To advance, science always needs a favorable social climate.

Social Climate

Psychology as a discipline and psychological knowledge are inseparable from specific social conditions within which they develop. *Zeitgeist* is a term standing for the prevalent social climate, or, translated literally from German, the "spirit" of a particular time or generation.

Zeitgeist can be favorable or unfavorable for psychology in different times and in specific circumstances (Ludy, 1986).

Take, for example, human sexuality as a subject of psychological studies. In the Soviet Union of the 1960s, psychology as a scientific discipline was booming. The government sponsored psychological research, opened new university departments, and created many new faculty positions. National conferences and research seminars became frequent. The social climate was positive for psychology as a discipline. However, government authorities rejected almost any research in the field of human sexuality, which was considered an ideologically inappropriate field. The public, at least a substantial portion of it, also considered a public discussion of sexuality obscene. Many ordinary people supported strong restrictions on sex education in Soviet schools (Shlapentokh, 2004). The government reinforced the existing negative social climate of cultural conservatism in the Soviet Union and stalled scientific research on sexuality and several other seemingly controversial subjects.

The publication of Alfred Kinsey's (1894–1956) *Sexual Behavior in the Human Male* (1948/1998), a book based on empirical studies of sexuality, received an angry response from many people in the United States, including scientists. The social climate in America was quite ambivalent at that time. Some people thought that researchers should enjoy academic freedom and study anything they chose. Others maintained that research should be separated from what they believed was perversion. So can we say that social climate in the Soviet Union and the United States was almost similar in its opposition to research of sexuality? Not necessarily. The difference between the climate in the United States in the 1940s and the Soviet Union in the 1960s was that in the United States, despite some strong public opposition, the government did not interfere directly in psychological research, while in the Soviet Union, it was the government that determined what scientists should and should not have studied.

Science, in turn, can affect social climate. One hundred years ago, for instance, many educated people believed that the intellectual development of the people from remote tribes in Africa, Indonesia, or South America was primitive, their behavior immature, and their cultures backward. Most scholarly

writers did little to discourage these attitudes. Non-European ethnic and racial groups were frequently presented in simplistic and often condescending terms. Literary magazines like *The Cosmopolitan*, for example, in an October 1894 article, described Tunis as a place “where the sky is clear, the earth fertile, and man obsequious.” The Turks were “proud and unmanageable.” The Moors were “honest, mild, polite, and courageous.” Similar simplistic descriptions of other groups were common.

However, new studies began to challenge these popular perceptions of other cultures. One of the groundbreaking studies was *The Mind of Primitive Man* by Franz Boas (1911/2010), one of the founders of modern anthropology. The central assumption of his approach, soon supported by other scientists, was the equality of human beings and their cultures and appreciation of human behavior in its diverse forms. This publication gave a boost to a new wave of research in developmental and cultural psychology, social psychology, and anthropology, which certainly effected a gradual change of social attitudes about history, culture, and social equality. This change, however, did not take place overnight.

ON THE WEB

*Kinsey is a 2004 semibiographical film written and directed by Bill Condon. It describes the life of Alfred Kinsey, whose 1948 publication *Sexual Behavior in the Human Male* was one of the first recorded works that scientifically addressed and investigated sexual behavior in humans. The companion website contains critical information about the film, an outline of Kinsey's research, and the discussion of the social climate surrounding it.*

Questions: What was Kinsey's 1953 report about? What specific arguments were used to attack Kinsey's work? Do you think that today's social climate (in which countries?) is favorable toward psychological research of sexuality? Are there any psychological research topics that you would personally oppose today and why?

Academic Tradition

Psychology's history is also a history of **academic traditions**. They bring together scholars sharing similar views on a particular scientific approach, subject, or method. There are real associations involving interacting individuals, and there are traditions as convenient symbols to indicate a similarity in views. Certain academic traditions come to stay, while others go. Psychoanalysis was a dominant field in the clinical field of psychology until the 1960s. A shift in academic priorities took place in the second half of the 20th century. (We discuss this in Chapters 8 and 11.)

Academic traditions perform several functions. The first is communication. Scientists have a chance to discuss their research with one another. Discussion clubs involving scientists were common in the past. In the 18th century, the famous French intellectual Paul-Henri Thiry (known also as Baron d'Holbach) established the *salon*: a regular get-together of progressive thinkers, authors, and educators. Liberal-minded philosophers discussed materialism and atheism and criticized the oppressive rule of the king. In the 19th century in the United States, shortly after Wilhelm Wundt had established his laboratory in Germany (1879), Professor James McCosh organized an informal "Wundt club" among the faculty at Princeton University to discuss the latest psychological research conducted in Europe (Baldwin, 1926). As might be expected, scientific ideas receiving scholarly attention and informal support had a greater chance to develop and win more supporters in the future. Meanwhile, some well-accepted ideas were likely to fade away under the pressure of their critical evaluations. That is exactly what happened to the theoretical ideas of Wundt, as we will learn in Chapters 4 and 5.

The second function is consolidation of knowledge. Several scholars working on the same problem or using the same theoretical approach can work more efficiently than can individual scholars. There are long-term informal associations, the purpose of which is to let their participants collaborate and share research findings and theoretical assumptions. Such associations may gain recognition among scholars of two or more generations. Prominent psychologists of the 20th century, such as Sigmund Freud, William James, Kurt Lewin, B. F. Skinner, Jean Piaget, and many others, cared about their students and followers—those who could and would continue research traditions of their mentors. Many psychologists actively and deliberately recruited their followers (Krantz & Wiggins, 1973).

The third function of academic traditions is protection and control. In history, quite a few academic traditions—especially those related to philosophy, social and life sciences, and psychology—were closely associated with government authorities and social institutions they supported (Kusch, 1999). Sometimes blended with government institutions, these formal academic associations frequently played the role of academic sponsors and censors. Some research was enthusiastically promoted, while other studies were hastily rejected. For instance, psychology in Europe and North America in the 19th century could not turn to experimental studies of mental activities until after several traditional academic associations began to loosen their control over research of mental processes.

In summary, certain academic traditions create favorable conditions for particular types of psychological research and development of psychological knowledge. A strong academic support of a theory, or its rejection, very frequently played a vital role in the history of psychology. (See Figure 1.1.)

An accurate picture of psychology would be incomplete without introducing the lives and deeds of individual psychologists. Individual scientists wrote the history of psychology. They called themselves philosophers, educators, physicists, doctors, theologians, physiologists, and psychologists; they have created their ideas, exposed them to followers, defended them against critics, and conveyed them to other generations. Years pass, and volumes of published research are forgotten. Colorless book covers on the crowded library shelves are

sad reminders of some books' apparent irrelevance for today's students of psychology (Simonton, 1994). But what makes some ideas historically significant? To address this question, we turn to historiography.

CHECK YOUR KNOWLEDGE

1. Most educated people trained in science regard dianetics as
 - a. a kind of ideology or folk belief.
 - b. scientific knowledge.
 - c. legal knowledge.
 - d. an academic tradition.
2. Find the best interpretation of Zeitgeist:
 - a. Economic resources
 - b. Legal knowledge
 - c. Folk beliefs
 - d. Social climate
3. Name three main functions of academic tradition.
4. What was the key point of *The Mind of Primitive Man* by Franz Boas (1911/2010)?

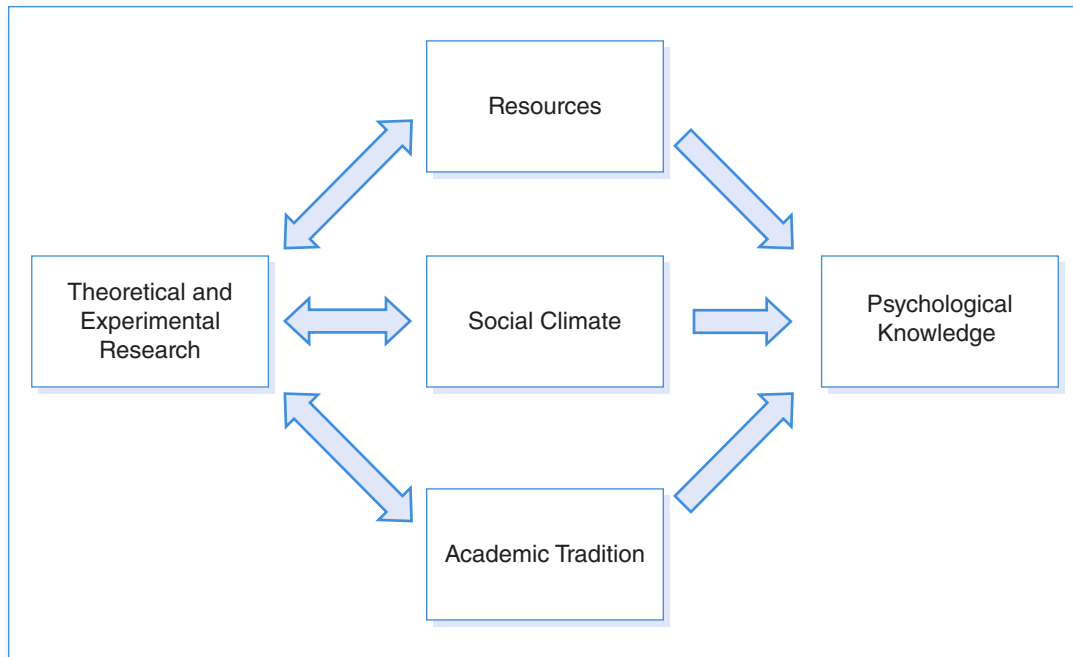
Historiography of Psychology

In a broad sense, **historiography** studies the ways by which people obtain and disseminate historical knowledge. Referring to psychology, historiography focuses on the methods used in the study and depiction of psychology's history (Pickren & Dewsbury, 2002). In history books, the accomplishments of entire generations are commonly condensed in several pages or even paragraphs. The history of any academic discipline is a summary. It is also a creative narrative because historians' accounts of the past are unkindly selective.

Not every psychologist's name will remain in psychology textbooks. Most psychology majors, for example, have heard about the work of John Watson, "Psychology as the Behaviorist Views It," published in 1913. But how many majors are aware of the article "Immortality From a Scientific Point of View" written by Vladimir Bekhterev in 1916? History books have preserved Watson's "Psychology" but have not been so generous to the Bekhterev's article on immortality. Many people know who Sigmund Freud was. But who was Wilhelm Stekel? Most definitely, Katharine Banham (a Canadian psychologist) is less known than Jean Piaget from Switzerland! How many of us have read a 1970 article about the reaction time of 100 male subjects in Finland responding to visual signals? However, other studies, like the 1971 Stanford prison experiment by Philip Zimbardo and his colleagues, became familiar to practically every student majoring in psychology (Zimbardo, 2008).

How do psychologists gather and select the information from years past? Why do some psychological studies remain relatively obscure while others gain prominence? An easy answer might be that significance of psychological knowledge of yesterday is based on its contribution to future

Figure 1.1 Societal Impact on Psychological Knowledge



knowledge. However, what is called significant is subject to a wide range of interpretation (Kendler, 2002; Lakatos, 1970). Let's address the question of significance by discussing historiography.

Peer Review

Research conducted by Harry Harlow and his colleagues is considered one of the most well-known in psychology. Practically every psychology textbook refers to Harlow's experiments showing that infant monkeys prefer a soft terry cloth mother surrogate to a wire one, even when only the wire one dispenses milk. The reviewers of this research underline the importance of attachment and its impact on an individual's development (Novak & Harlow, 1975). This study became relevant to later studies of attachment.

Who is a good judge of knowledge's relevance? Probably those of us who can make informed evaluations of that knowledge's relevance and impact. Psychological knowledge is likely to remain in history textbooks today if qualified peers have broadly recognized it. Peer acceptance is crucial in determining the value of knowledge. Psychologists today show some consistency in the way they recognize the most important theories of the past. For example, in 10 randomly selected best-selling introductory psychology textbooks published in the United States in 2012, William James is referred to 67 times (ranked number one), John Watson is mentioned 47 times, and Ivan Pavlov appears 56 times. Typically, names such as Erik Erikson, B. F. Skinner, Abraham Maslow, and Albert Bandura are mentioned several times in every textbook. Sigmund Freud receives significant attention, mostly for his personality theory. There are always a few references to the works of Wilhelm Wundt, Carl Jung, Alfred Adler, Jean Piaget, and Carl Rogers, among others. Disagreeing about some details, psychologists, as surveys show, generally agree on the top 10 most influential psychologists from the past (Korn, Davis, & Davis, 1991).

Nevertheless, peer evaluation is a very complicated and at times controversial process. Very frequently, personal disputes, jealousy, friendship, personal affiliations, favoritism, and many

other subjective factors play a role in science. Scientists sometimes use unfair strategies in an attempt to secure funding for their research and deny support to others (Fara, 2009). Institutional traditions may be supportive of some scientific fields but not others. Consider the Nobel Prize, an undeniable indicator of prominence. How many scientist-contributors to psychological knowledge won this most prestigious scientific award? Sigmund Freud was nominated 11 times, and 11 times he lost (optimists say, “He did not win”). Wilhelm Wundt was nominated 3 times with the same disappointing result. Ivan Pavlov was nominated 5 times: Four times his name was suggested for his research on the nervous system and reflexes; once he was nominated for his research in physiology of digestion. Pavlov won the Nobel Prize for physiology or medicine in 1904. The physicist Georg von Békésy, who worked on the mechanisms of sensation and psychoacoustics in particular, won the Nobel Prize, also, for physiology or medicine in 1961. Another prize in the same field was awarded in 1973 to three ethologists: Karl von Frisch, Konrad Lorenz, and Nikolaas Tinbergen (*ethology* is the study of animal behavior primarily in a natural environment). Behavioral science was recognized again in 1978 when Herbert A. Simon won the prize in 1978 in economics for his work on organizational decision making. In 1981, Roger Sperry was awarded the prize in medicine for discoveries concerning the functional specialization of the cerebral hemispheres (Dewsbury, 2003). Daniel Kahneman was the first psychologist to win the Nobel Prize in 2002. However, he won this prize in economics (although Kahneman said he had never taken a single economics course in college) by introducing fundamental research on people’s mistakes of judgment in investments and trade.

Scores of psychologists and other scientists who have contributed to psychology are not on the list. The Nobel Prize selection committee has overlooked them. But does this fact make researchers who haven’t won the prize less important than those who have? No, not at all. In historiography, peer recognition is an important factor, yet there are other factors affecting the selection and preservation of knowledge (Pickren, 2003).

Support or rejection by peers does not guarantee that a researcher’s name will or will not remain in history. Mesmerism, as you recall, was increasingly rejected in academic circles across Europe in the 19th century, yet this theory remains well-known today. Wundt received recognition as a researcher; however, most attention today is given to his organizational talent. Only few pay attention to his theoretical views. In addition to receiving positive peer review, psychologists and their studies are often remembered for the impact they make on the discipline. Such impact could be sometimes very controversial.

The Inevitable Impact of Controversy

Controversy brings public attention. An originator of behaviorism, John Watson, was forced to resign from his key academic positions because of a personal scandal involving him and a female student with whom Watson had an intimate relationship. Newspapers were extremely unkind to Watson during the scandal, which quickly became public. As we will see in this book, a controversy surrounding a psychologist’s life can fuel significant public interest.

In the 1930s, a group of American psychologists conducted a long-term experimental study in Iowa. They studied children in orphanages and adoptive homes and documented remarkable upward movement in the Intelligence Quotients (IQs) of those boys and girls who were exposed to stimulating environments in well-educated, economically secure families. Unfortunately, it turned out that this study was full of serious methodological errors and its conclusions were incorrect. Yet this research remains prominent for its scope, daring goals, and a variety of methods used. It also serves a warning to psychologists to pay extremely careful attention to their methods (Herman, 2001). A study remains in history for its controversial impact on science!

The work of Stanley Milgram is another example. He designed, as you might remember from introductory psychology classes, a series of experiments at Yale University in 1961–1962 to study obedience to authority. The research procedure obliged the researcher to place a number of volunteer-participants under tremendous psychological pressure. During the experiment, participants had to make difficult moral choices, such as whether to deliver painful electric shocks to other participants (actually the shocks were not delivered but the participants didn't know about this). The critics argued that the subjects in this experiment had been emotionally abused and traumatized, and Milgram was heavily criticized for this. Although he later conducted other experiments, his name is forever associated in psychology books with that original obedience study, which psychologists today call the *Milgram Experiment*. This landmark study showed that obedience to authority is common in ordinary people who may commit violent acts if an authority figure takes responsibility for their behavior. But most important, the study highlighted the importance of ethical guidelines in psychology experiments (Blass, 1992; Milgram, 1963).

Historical significance of a psychologist's work may be overshadowed by his or her controversial behavior or the circumstances surrounding it. Wundt, a founder of experimental psychology, for example, thought of Germany's entrance into World War I as morally justifiable. Wundt expressed a nationalistic belief in Germany's right to defend itself and accused the United States and Great Britain of excessive individualism and materialism (Harrington, 1996; Kendler, 1999). It is doubtful, however, that Wundt's nationalist attitudes affected his peers' assessment of his laboratory experiments. Yet when scientists make bold decisions or take controversial actions, their views and work receive sudden publicity and attract attention. Social and political activism is one such action. William James, a prominent American psychologist at the beginning of the 20th century, had become one of the earliest social activists arguing against wars on moral grounds. Do these pacifist beliefs add points to the score of James's psychological legacy? Probably, yes, although the impact could be indirect. For example, researchers in political science today reference to William James's critical work on war. His views attract the attention of scholars from other disciplines (Jensen, 2012).

Most psychologists do not seek controversy or ignite scandals to grab attention. Controversy is a superficial source of attention and should not be a substitution for a researcher's merit. In the history of psychology, however, preferential attention has sometimes been given to research associated with social status, social prestige, and power.

Social Status, Social Prestige, and Power

In the history of science, individuals of higher social status had a better opportunity than other people to have their scientific ideas heard (Fara, 2009). Ideally, talent should win against mediocrity. However, talented scientists and educators serving kings and sultans have always had a greater access to information, superior conditions for research, and better opportunities to publicize their teachings than any talented scholar working in obscurity. We will read in Chapters 2 and 3 that probably the most celebrated philosophers in Europe, the Middle East, India, and China who lived and worked in ancient times and the Middle Ages had their names associated with the most powerful rulers. Similarly, most prominent philosophers of the modern era who made important contributions to psychological knowledge were *de facto* on kings' and queens' payroll or supported by wealthy families. Exceptions, of course, existed. But the association with the powerful was common for most prominent thinkers in the past.

Today's psychologists (with rare exemptions) do not directly serve presidents and prime ministers. For nearly 200 years, most scientists contributing to psychology have worked for colleges, universities, or in medical facilities. Yet in a similar way, the prominence and power of academic institutions may become an important factor empowering psychologists and their creations.

Prominent “founding parents” of American psychology studied in and worked for top schools. Edward Thorndike did his studies at Columbia University. John Watson worked at the University of Chicago and Johns Hopkins University. Hugo Münsterberg was at Harvard University. William James and B. F. Skinner also served at Harvard. Edward Titchener worked at Cornell University. It is not a rule that psychological research at Harvard, Cornell, Columbia, Stanford, or some other “top-ranked” school should receive a better reception from scholars. However, very few will deny that the intellectual and financial resources available to researchers in the best schools play a serious role in how knowledge develops. Universities with better funding opportunities often have a greater potential to hire prominent psychologists or enroll gifted students. Again, talented researchers supported by generous funding tend to have more opportunities than their equally talented colleagues who are working in less favorable conditions.

There is no reason to become cynical and see the history of psychology only through the prism of money and resources. Funds and prestige do not necessarily guarantee the best talent in psychology. For example, Hermann Ebbinghaus was not a university professor when he did one of the most quoted studies of memory in the 19th century. Wilhelm Wundt’s laboratory was in Leipzig, not in Berlin, which was the seat of the most prestigious German university with a reputable psychology department. Alfred Binet, probably the most quoted early specialist on intelligence, couldn’t secure employment at the premier French university of his choice. Daniel Kahneman, the only psychology professional to win the Nobel Prize had worked at several universities before he joined Princeton, an Ivy League school, at the age of 62. One of the founders of modern social psychology, Kurt Lewin, settled at the University of Iowa. The world-renowned psychologist Abraham Maslow taught at Brooklyn College. Sigmund Freud, one of the most quoted contributors to psychology, as well as Herbert Spencer, did not hold a full-time professorship.

One may suggest that being a colleague to a prominent psychologist should guarantee success or recognition in history. This sounds quite logical, and we will see several supporting examples throughout the book. Nevertheless, someone’s professional association with a prominent psychologist is not the key to future success. Wilhelm Stekel, one of Freud’s earliest followers, was expelled from the psychoanalytic movement in 1912 because of his alleged personal mistakes (see Chapter 8). Although he remained active as a psychoanalyst, most psychologists are unaware of his post-1912 work, which was considerable. In the 28 years after his break with Freud until his suicide in 1940, Stekel published at least a book a year as well as numerous articles. Altogether, he wrote 36 books, 179 articles, and 153 abstracts and reviews (Bos, 2003). A question: Have you read any of Stekel’s work? Yet could it be that Freud’s poor relations with Stekel doomed his reputation? Probably not. Freud also had very poor relations with his former supporters such as Carl Jung and Alfred Adler, who remain among the most prominent psychologists of the 20th century. Of course, friendship plays an important role in the history of psychology, but its impact is highly circumstantial.

It should be said that the history of psychology is a product created by academic superstars as well as by scores of individuals who remain virtually unknown to us today (Leahey, 2002). While studying psychology’s past, we must not overlook the importance of contributions made by less-known individuals who had a part in shaping the body of contemporary psychological knowledge.

Overcoming Selective Attention: Gender and Ethnicity

For years, men dominated the discipline of psychology. Even in the 20th century, restrictions existed in many industrially developed nations regarding enrollment of female students to major

universities. Even when law protected equality, hiring of female faculty and researchers was limited by custom and prejudice. Glass-ceiling barriers also existed in terms of promotion of women to more advanced positions in a university's male-dominated hierarchies. You will observe repeatedly in many chapters of this book that gender has been a very important factor affecting the development of psychology as both discipline and psychological knowledge (Riger, 2002). Consider just one example.

At the very beginning of the 20th century, many experimental psychologists shared a view that only a specially selected and trained group of highly skilled observers could perform the collection and compilation of scientific data in psychological labs. Only trained professionals could conduct scientific observations in strictly controlled conditions of an experiment. These trained professionals should be men. Why? The researcher, as it was assumed, should be a watchful and meticulous person. He should be lacking any emotion or passion during an experiment, like excitement, disappointment, or jealousy. Women at that time were commonly regarded as too emotional, unstable, and sentimental (Keller, 1985). In short, the researcher must have been wearing a pair of pants and had a beard. It was further assumed that women—because of their involvement in busy relationships, families, children, and so forth—should play only subsidiary roles in psychological research. A better role for a woman was research assistant, not principal investigator (Noon, 2004). As a result of these beliefs and practices, scores of skilled women were underestimated, overlooked for promotion, or simply ignored.

For centuries, psychology has been a male-dominated field. In 1950, only 15% and in 1960 only 18% of all doctoral degrees in psychology were awarded to women. Yet in the 1970s, the number of women earning doctorates in psychology began to increase steadily, and by the early 1980s, this number had increased dramatically. For the first time in history, the proportion of women doctoral recipients became equal to men. By 2016, if the trend continues, women would receive 70% of the doctoral degrees earned in North America. Men and women tend to pursue many similar career choices in psychology. Some careers are different. For example, a vast majority of doctoral degrees in developmental psychology goes to women. Yet most degrees in experimental psychology have been awarded to men (Stewart, 2009).

Another factor affecting psychology was **ethnocentrism**, or the tendency—sometimes deliberate but often unintentional—to view psychological knowledge from specific national or ethnic positions. These days, we will hardly find psychologists who deliberately ignore research conducted in other countries or by people of different ethnic or cultural backgrounds. Yet ethnocentrism, often unintended, has existed in history.

One of several factors contributing to ethnocentrism was the language barrier. Historically, due to a rapid development of psychology in the United States in the 20th century, much written communication was conducted in English. Scores of prominent journals and other publications also appear in English. For many years now, most international conferences overseas recommend English as an official language. Researchers who have limited knowledge of English or no access to international journals, unfortunately, have a diminished opportunity to be recognized.

Another factor feeding ethnocentrism in psychology is the belief that only scholars working within the Western cultural tradition deserve the attention of most of today's psychologists. In a similar way, there is a tendency in psychology books to portray North American and western European psychological schools as having made the most substantial contribution to the history of psychology compared with other national schools. As a result, most textbooks available today describe various schools of thought and specific theories that originated and developed in a relatively small selection of countries. These are, mainly, the United States, France, Germany, and a very short list of other European nations. Without a doubt, scientists

from these countries have made remarkable and significant contributions to contemporary psychology. However, no less noteworthy and outstanding contributions have come from many other parts of the world, including Japan, Russia, South Africa, Turkey, India, Pakistan, Iran, Mexico, China, Congo, and Brazil, to name a few. These names and theories, for a number

CASE IN POINT

Old Controversies and New Debates

A study of peer-reviewed publications in leading academic journals in psychology showed that more than 90% of research samples came from a small group of countries representing only 12% of the world's population (Henrich, Heine, & Norenzayan, 2010). Other studies confirm that the vast majority of people who participated in psychological surveys, experiments, and other types of research in the past come primarily from the United States, Canada, the United Kingdom, Germany, France, and Australia. Although there is a growing number of studies coming from South Korea, China, and Japan, most of the participants from these as well as Western participants are well educated, raised in very stable countries, and significantly younger than the rest of the world's population. A small example: At the 2010 International Conference on Infant Studies, less than 1% of the 1,000 research presentations reported including participants from disadvantaged families (Fernald, 2010). Today we know that most research data in psychology were obtained in the past from studies of students. In a study reported in one of the leading journals, undergraduates composed two thirds of samples from the United States and more than three quarters of samples from other countries (Arnett, 2008). Significant numbers of these students were psychology majors. It looks like, as critics maintain, psychology has been collecting data on a sample that was not representative of the global population.

Questions: If psychological research has been focusing so far on only a narrow sample of the global population, do you think that the history of psychology is also painting an incomplete picture of the world's psychological knowledge? If you agree that psychologists committed a "global" sampling error, what should be done in your view to correct it?

ON THE WEB

On the companion website, read more about the psychologist Joe Henrich and his colleagues who believe that psychology as well as behavioral sciences has been making big statements about human behavior and experience while relying on largely nonrepresentative samples.

Questions: What does the term WEIRD used in the article stand for? What is "physics envy" in psychology? Learn more about other students in your class and discuss in which way they as a group may be a representative sample for a global population.

of reasons, remain unknown to a majority of psychology students. A psychologist paying careful attention to the negative impact of ethnocentrism should pay attention to a history of psychology that is more comprehensive and accurate than other versions that existed in the past.

In summary, selective attention to psychological knowledge developed in the past due to gender or ethnic bias is a subtle but substantial factor influencing the researchers' choices in selecting, presenting, and promoting materials related to the history of psychology. In the following chapters, we will address these and other cultural biases.

CHECK YOUR KNOWLEDGE

1. Who was the first psychologist to win the Nobel Prize in 2002 and in which field?
 - a. Freud
 - b. Skinner
 - c. Kahneman
 - d. Zimbardo

a. biology; b. psychology; c. medicine; d. economics
2. In 1960, in the United States, how many of all the doctoral degrees in psychology were awarded to women?
 - a. 70%
 - b. 50%
 - c. 38%
 - d. 18%
3. What does historiography study?
4. Explain ethnocentrism in psychology.

Understanding the History of Psychology

It may be convenient to understand the development of psychology as a movement from one historical generation of psychologists to another. It is easy to imagine that each distinct psychological tradition had a time and place of birth, followed by a period of development, and concluded by a phase of decline. Then a new and “better” tradition was born and developed through similar stages. It is also easy to divide psychologists who lived in a certain period into two categories: (1) those who belonged to a scientific school (e.g., behaviorists) and (2) those who didn't. However, by using this straight-line approach, we run the risk of seeing psychology in an awkwardly simplistic way. The history of psychology as the history of science was not necessarily a straight line of growth and improvement (Kuhn, 1962).

Labels Can Be Misleading

Look at the following deliberately simplified presentation of psychology's history over the past 150 years. In this example, a line in history appears as a sequence of identifiable labels (we will study these categories and terms later in the book):

Philosophers and physicians, who developed psychology prior to the 19th century, gave way to phenomenologists. Then it was a battle between structuralists and functionalists. Then behaviorists came in the 20th century and replaced phenomenologists. Psychoanalysts struggled against behaviorists. Both psychoanalysts and behaviorists fell under criticism of Gestalt psychologists, cognitivists, and, most recently, humanistic psychologists.

Categorizing is, to some degree, a cultural trend: We label and rank everything from college teams, songs, movies, the most attractive male and female dancers and singers to the silliest acts

caught on video and the most beautiful or ugliest outfits of the year. In a similar fashion, it is sometimes tempting to see the history of psychology as a straight line of distinct schools and systems with labels and ranks attached.

In fact, many psychologists did not want to associate their names with categories, schools, or associations. We will learn that today's convenient division of psychologists of the early 20th century into "structuralists" and "functionalists" types was not that common 100 years ago. Placing every researcher in a specific category frequently simplifies our knowledge about psychology. As a remedy, we will accept an artist's wisdom: Between the extremes of black and white, there exists a middle ground made up of innumerable shades of gray (Levy, 2009). In many cases, a "No labels attached" understanding of a psychologist's work helps us understand that work better.

But wait! Could it be that psychologists—especially those who had lived in the same historic period—wanted to accept these labels standing for distinct psychological traditions? We know today that in the past, psychoanalysts preferred to meet with fellow analysts but not with other types of psychologists. Leading behaviorists attended behaviorist conventions and sought students who would share similar academic views (Rogler, 2002). In fact, there were several distinct psychological schools associated with universities such as the University of Chicago. Many psychologists identified themselves as members of such schools.

These arguments should suggest that our knowledge does contain labels and categories. Yet when studying the history of discrete psychological approaches and schools, their birth, development, and decline, we will also look at many turns, gray areas, names, and facts that did not always fit into the convenient boundaries of labels. And you will find that there are plenty of such names and facts!

Fragmentation and Standardization

Since the dawn of psychological research, scientists consistently expressed contentious opinions on most topics. One hundred years ago, they even disagreed on the main subject of psychology. Wundt, Ebbinghaus, and Titchener urged psychologists to study consciousness. Freud and Jung focused on the mechanisms of unconscious processes. Spencer, Galton, and James paid attention to human adoptive activities. Thorndike and Watson put behavior in focus. Some, like Pavlov, preferred to study the reflex as the foundation of all psychological activities. Others, like Titchener, focused on mental elements or mental operations. Some of them supported experimental research, while others believed in free will and self-analysis.

With passing years, the situation within the discipline of psychology was becoming more perplexing. By the end of the first quarter of the 20th century, scholars belonging to various academic traditions began to design and use their own professional language closely related to the subject and methods of their study. Increasingly, scientific schools grew apart. Psychoanalysts would not read behaviorist publications. Behaviorists would ignore altogether the structuralists and their work. Both behaviorists and psychoanalysts would skip publications of Gestalt psychologists. The fragmentation of knowledge in psychology was evident from the inception of the discipline. The history of psychology appeared for some critics as a narrative of a series of disjointed concepts and theories (Bower, 1993; Yanchar & Slife, 1997).

Despite the apparent fragmentation and specialization of psychologists preoccupied with their own models and methods, psychologists had the opportunity to look at these branches and theories, compare them, and make comparative evaluations. Some theories revealed their own weaknesses. Reliable scientific data from other theories became available. In the process, psychological knowledge was becoming more standard, consistent, and interrelated. We can call this process the standardization of knowledge. Three factors stimulated the process of psychology's standardization.

First, the development of market-oriented principles of governance established in many societies through the 20th century gave psychologists great opportunities to seek practical application of their research in education, business, assessment, training, and health care fields. Practical needs led many psychologists to seek a common ground to speak a sort of universal professional language of psychology.

Second, because of the growing sophistication of psychological research, many psychologists could no longer afford to conduct big and comprehensive studies. It was the time of specialization that, in effect, led to the recognition that the same phenomenon (e.g., parent–child interaction) could be studied simultaneously from different psychological perspectives and by different methods. Every method would advance knowledge.

Third, rapid developments in education and communication, including the birth and expansion of mass media and the web, have broadened the general audience's knowledge about psychology and diversified the public's attitudes about psychology. More people were aware of psychology as a discipline, more individuals sought and appreciated scientific knowledge, and more people would choose psychology as their educational degree and future profession.

The competing process of fragmentation and differentiation in psychology continued for many decades. It continues even today.

Conclusion

Pessimists emphasize psychology's fragmentation and are likely to look at its history as a sequence of incomplete theories. This is how the pessimists would see the history. First, a theory initially attracts enthusiastic supporters. Then critics find weaknesses in it. Criticism grows, thus diminishing the significance of the theory. Finally, it loses support. New theories appear to repeat the sequence. Pessimists argue that psychology has never had a common language and has never been unified. It has remained largely fragmented throughout its short history.

But let's look at the history of psychology from a different angle. What if we see these fragmented theories as if they were beams of light coming from different projectors and illuminating one object? Each beam brightens only one side of the object, but together they show a much clearer picture. Using this analogy, we could see psychology's history as a relentless attempt to broaden our knowledge. Let's call this approach *integrative* (Sternberg & Grigorenko, 2001). From this point of view, in the history of psychology, each psychological theory or assumption was somewhat accurate. Each has illuminated, brightly or not, only a small part of psychological reality. If we take into consideration, for example, anger, we can realize that several theories of the past had different and incomplete interpretations of this emotion. Yet we can also realize that anger, as well as any other emotion, was studied from an evolutionary, cognitive, behavioral, or other approach. Each presents a different way of understanding anger.

Why couldn't psychologists put their heads together to create a single theory? Would it be beneficial to have a unified theory instead of many disjointed traditions and approaches? Let's consolidate, unite psychology! There are serious arguments against a deliberate consolidation of psychological knowledge. Any attempt at centralization would eventually create a monopoly on knowledge. This monopoly would likely mean intellectual domination of one group of researchers over others. It would also mean that only one understanding would be deemed scientific or correct and others dismissed and eliminated. Competition of ideas would no longer be tolerated. Only a few esteemed psychology leaders would be granted the lifelong right to disseminate their psychological wisdom to forthcoming generations of young psychologists. Would you like to witness that scenario?

Psychological knowledge is strong as long as it is diverse.

CHECK YOUR KNOWLEDGE

1. Labels used to describe psychology's history are
 - a. convenient simplifications.
 - b. helpful in the process of categorization.
 - c. often misleading.
 - d. all of the above.
2. Name three factors contributing to psychology's standardization.
3. What are the arguments against a single, universal psychological theory?

Summary

- When we study psychology's history, we undertake a scientific investigation of psychological knowledge from a historical perspective. Psychological knowledge is inseparable from the social, economic, and cultural contexts in which it develops.
- Although psychology as an academic discipline received its initial recognition only by the end of the 19th century, its development had begun much earlier. Many individual scholars—psychologists, philosophers, doctors, theologians, neurophysiologists, mathematicians, and others—contributed to psychological knowledge and psychology as a discipline.
- Among important themes in psychology, three stand out: (1) the mind–body problem, (2) the interaction of biological and social factors in human behavior and experience, and (3) the balance between theoretical knowledge and its practical application.
- Different people and groups used psychological knowledge to pursue specific goals. As a result, several types of psychological knowledge have emerged. Among them are scientific, folk, ideological (values), and legal.
- The social, political, and academic atmospheres unique to particular historic times and locations were crucial for psychology as a discipline. At least three factors are used to understand the complex interaction between society and psychological knowledge: resources, social climate, and academic tradition.
- Historiography studies the process by which people obtain and disseminate historical knowledge. As a result, some psychological studies remain relatively obscure from the public's standpoint while others gain prominence. Among several factors affecting the historic significance of psychological research are peer review, controversy, social status, social prestige, and power.
- In history books, the accomplishments of entire generations are commonly condensed into several pages or even paragraphs. The history of any academic discipline is a summary based on opinions of peers, social impact of research, controversies involved, and social prestige. Gender bias and ethnocentrism have also affected psychology's history.
- The history of psychology, like the history of science, is not necessarily a straight line of growth and improvement. Psychologists have consistently expressed dissimilar opinions on almost every topic. Fragmentation, standardization, and integration of psychological knowledge have continued throughout its history.

Key Terms

Academic traditions	17	Knowledge	4	Popular (or folk) beliefs	9
Ethnocentrism	23	Legal knowledge	12	Psychological knowledge	4
Historiography	18	Neurasthenia	8	Scientific knowledge	7
Ideological (value-based) knowledge	11	Placebo effect	8	Values	11
		Pop psychology	10	Zeitgeist	15

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