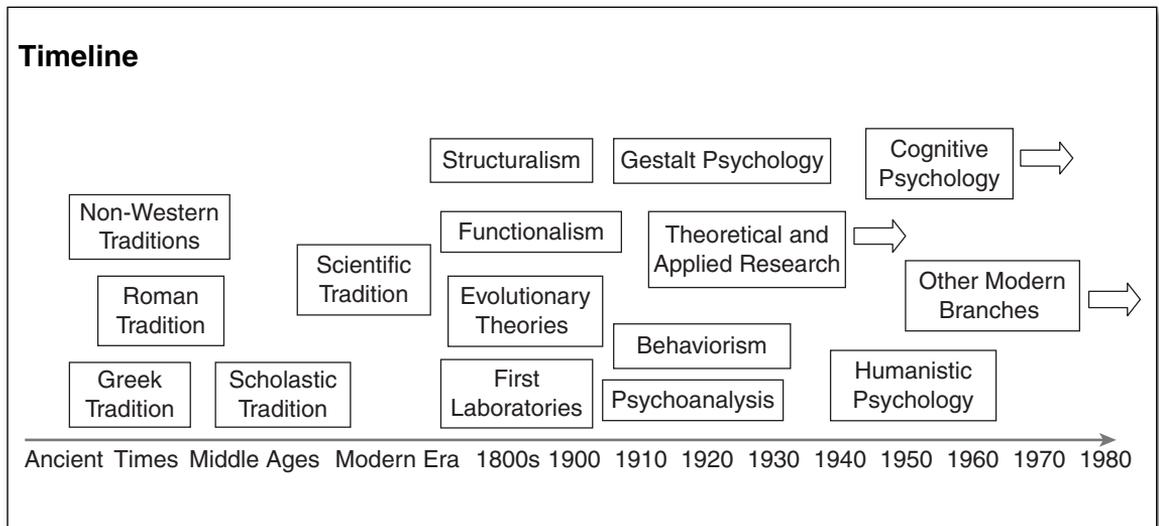


Understanding Psychology's History

What you are, they once were.
What they are, you will be.

*An inscription in the crypt of Capuchin monks
spotted by John Boyd and Phil Zimbardo*



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"Professor, I have figured it out!" With a triumphant smile on his face, Daniel stormed into the professor's office. "In the beginning, you told us to investigate the source of every problem, right?" He pulled out of his pocket a piece of paper. Hastily unfolded and placed on the top of the desk, the paper resembled an exotic white lily with the petals wrinkled in unpredictable directions. "Here it is." Daniel pointed at his handwritten lines that resembled antlers. "Yesterday we discussed why psychologists have trouble identifying the subject of psychology, right? I know the reason why. Psychology was developed by people who had little to do with psychology. Remember you showed us how historians ranked the 10 most important psychologists of all time? Guess how many of them obtained their graduate degrees in psychology?"

"Skinner had a psychology degree for sure," the professor replied.

"Yes, Skinner had, but that's it! Everyone else had not. Wundt, James, and Freud, ranked first, second, and third on the list—they all had medical degrees. John Watson received his master's in theology and a PhD in philosophy. Ivan Pavlov was a physiologist who, by the way, did not believe in psychology as a scientific discipline. Ebbinghaus had a PhD in philosophy. Jean Piaget took a doctorate in zoology. Alfred Binet had an equivalent of a PhD in natural science for studying insects. Gustav Fechner's doctoral degree was in biology. . . ."

Daniel has made an interesting observation. Most top-ranked psychologists on the list, published some time ago in the *American Psychologist*, the top journal of the American Psychological Association (Korn, Davis, & Davis, 1991), did not receive their academic degrees in psychology. They, as did many other prominent psychologists of the past, began their educational careers pursuing degrees in biology, philosophy, or political science.

However, these historic examples must be taken cautiously for several reasons. First, the fact that psychology's prominent founders represented different fields of science is likely to be a sign of psychology's strength, not weakness. Second, it is inaccurate to form an opinion about psychology as a discipline by

looking at a “top 10” list as if we are ranking football teams. Psychology’s contributions, both theoretical and practical, are measured in many other ways. Third, psychology as a discipline developed in specific social and cultural contexts. Thousands of scholars dedicated their work and lives to the ideas that we study today. Returning to the “top psychologists” list, do you think that three Americans, three Germans, two Frenchmen, one Austrian, and one Russian could fully represent the entire world of psychology? Let’s start a more rigorous investigation of psychology’s history together!

Prologue

What Do We Study?

History is the study of the past. Historians gather facts, interpret them, dress these interpretations in the clothes of theories, and then present them to the reading, listening, and watching world. Historians focus on civilizations, cultures, countries, and great individuals. The history of psychology is the study of psychology’s past. But how can we study it?

Focusing on Knowledge. In this book, we undertake a scientific investigation of psychological knowledge from a historic perspective. We examine major psychological ideas and their development. We will learn how people developed their understanding of behavior and experience. Take depressive symptoms as an example. Early theories attributed depression to a misbalance of vital liquids in the body. Later theories referred to weakness of the nervous system as the cause of depressive symptoms. Yet more recent studies focused on genetic and environmental factors contributing to the symptoms.

Studying psychological knowledge, we examine major psychological schools including structuralism, functionalism, behaviorism, Gestalt psychology, psychoanalysis, cognitive psychology, and humanistic psychology—these and other labels should be familiar to you from an introductory psychology course. We also look at a wide range of ideas and remarkable theories created by psychologists around the world 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 because compulsory education of children was established in many countries and their governments needed a scientific system of assessment of children’s learning abilities. Attention to “psychological energy” increased significantly during the period when scientists were making discoveries in the fields of nuclear physics. Cultural taboos prevented psychologists from studying sexuality for a long time. Some psychologists in Nazi Germany worked on theories justifying the supremacy of the Aryan race. To understand psychology fully is to recognize its social and cultural environment. We pay special attention to at least three important features of the social context within which psychological knowledge developed: society’s resources, social climate, and academic tradition of the time.

Examining the Roots. Which historic period will we examine? Most attention is paid to psychology's last 150 years. Although psychology as an academic discipline received its initial recognition by the end of the 19th century, 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 different historic periods about their experiences, dreams, decisions, insecurities, and the whole range of normal and abnormal psychological symptoms.

To understand psychology's development, we look at a wide variety of influences on psychology: philosophical, biological, medical, religious, political, and others. Although we study history, our attention is also on today's psychology as an academic discipline, applied field, and profession.

Remembering Great Individuals. Many individual scholars—psychologists, philosophers, doctors, theologians, neurophysiologists, mathematicians, 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 psychological knowledge explaining the connection between brain pathology on the one hand and the human mind on the other. Most probably, if Alzheimer didn't make his discovery, someone else would have. However, he was the first, and his name 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 to 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 about comprehending several of its most recurrent topics and themes. What specific and recurrent themes do we pay attention to?

Recurrent Themes

The diversity and complexity of the problems that psychology has tried to address is remarkable. Three most important themes or problems, however, can be identified. Among them:

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 applications

We describe these problems only briefly now. We will 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 compared to 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 optimism, imagination, or beliefs. How could one, they argued, measure compassion or free will? The scientific opposition 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 even cultural divide. One group, as you can imagine, was 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 their critics of scientific ignorance. Today, the debate continues. Even using the advanced research from physiology and computer science, psychologists still have a challenge ahead of them: how to measure the subjective elements of experience.

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 in the focus of psychology’s attention. The essence of the nature-nurture debates was not necessarily about the dilemma, is it exclusively nature or is it solely 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 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 natural (biological) or social (environmental) factors. The outcomes of these debates have significant applications for psychology practitioners.

The Theorist-Practitioner Debates. Should scientists be concerned with practical applications of their research? Two traditions in science influenced psychology in every stage of its history. 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 concern. The other tradition claimed that science should, above all, serve to improve humanity (Morawski, 2002). Psychologists of the past tended to support the view that both practical and theoretical goals were important. Yet many of them differed in their personal choices: some were more committed to theory, while others were more actively involved in practical pursuits. The American Psychological Association for many years after its

inception in 1891 witnessed heated debates about the degree of psychology's practical involvement outside the university laboratory (Benjamin, 2002; Griffith, 1921). We will see how some psychologists believed that the true value of their research should be found only in its applications. Others were skeptical about their practice-oriented colleagues and criticized them for their alleged misuse of science to satisfy the demands of their sponsors. As we will see in Chapter 5, 100 years ago, psychologists who did a paid research for Coca-Cola were frequently criticized for "selling out" science to help a big corporation to win a legal case.

A history of psychology is a scholarly investigation of development of psychological knowledge, whether it was theoretical, experimental, or practical. If we study knowledge, how can we describe and explain it?

Four Types of Knowledge in Psychology

Knowledge is information that has a purpose or use. People use knowledge for different purposes. Imagine a shaman tells his fellow villagers that their dreams reveal their future. At the same time, in a different place, a licensed therapist tells a client that her dreams reflect little more than the client's past insecurities. Question: Which of these two individuals conveys knowledge? If we accept the definition, the answer should be, both. Throughout centuries, psychological knowledge was developed and used with a particular purpose. Different people and groups used 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

<i>Type of Knowledge</i>	<i>Sources of Knowledge</i>
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.
Popular (or folk)	Everyday assumptions about psychological phenomena; 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, right and wrong, and the purpose of human life are all based on a certain organizing principal or central idea.
Legal	Knowledge encapsulated in the law and detailed in rules and principles related to psychological functioning of individuals. These rules are commonly established by legal authorities.

Scientific Knowledge

The first type 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. Twenty-five hundred years ago, the ancient Greek philosopher Democritus believed that the movement of atoms of different shape and speed cause various emotional states. Four hundred years ago, René Descartes, the French-born thinker, 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. According to the Cannon-Bard theory of the 20th century, emotions occur first as signals, thus causing bodily reactions. A century ago, German psychologist Wilhelm Wundt identified emotions and measured them as elementary foundations of human subjective experience. In the 1920s, physiologist Ivan Pavlov in Russia and psychologist John Watson in the United States described emotions simply as learned reactions. Can you tell which of these views represented scientific knowledge and which of them did not?

In fact, all of them represented science. However, it was a developing science relevant to its times. All these theories attempted different but incomplete descriptions of emotions. We will see that most scientific theories of the past gained initial recognition but were later replaced by other theories. This does not make the earlier theories unscientific. They were probably less accurate. Scientific knowledge can be inaccurate for at least three reasons: incorrect assumptions, imprecise descriptions, and poor applications. Look at three historic cases presented next.

Mesmerism: The Science of Incorrect Assumptions. The French physician and innovator Franz Anton Mesmer claimed in his dissertation in 1766 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 insisted 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 a trained specialist could learn this skill too. 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 check the validity of Mesmer's claims. All the attempts to test the existence of animal magnetism irrefutably provided no evidence in support of it. Mesmer had no intent to deceive people. His theories of bodily action were, in some way, extensions of the emerging theories of physics. Sir Isaac Newton postulated gravity as a 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, however. Another wrong assumption was related to his patients. In the demonstrations, many of them reported disappearance of pain and other signs of improvement. From today's standpoint, the patients reported improvements probably because they believed in own recovery or wanted to show progress. This effect of a change caused by an anticipation of a change was later called the **placebo effect**. (We examine Mesmer's and similar views in some detail in Chapter 4.)

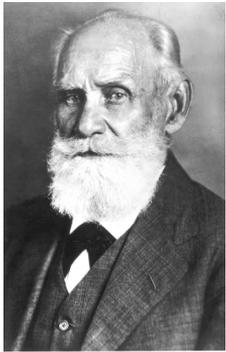
Neurasthenia: Imprecise Descriptions in Psychology. In the past, doctors and psychologists used the diagnosis **neurasthenia** to identify a mixed cluster of symptoms involving anxiety and depression. Clinicians attributed these symptoms to the weakness of the nervous system, assuming that science in the future would identify the specific neurological causes of neurasthenia. Overall, neurasthenia has been a popular and convenient diagnosis worldwide. Yet despite the widespread use of this diagnosis, there was no agreement on what the "core" characteristics of neurasthenia were (Starcevic, 1999). Overall, neurasthenia was a very imprecise label that allowed professionals to include practically any psychological symptom they saw fit under the umbrella of this name. Today, neurasthenia as a diagnostic category has been excluded from the *Diagnostic and Statistical Manual of Mental Disorders*: what was considered scientific yesterday is no longer viewed the same way today. (We return to neurasthenia in Chapter 6.)

Pavlov's Laws: The Science of Poor Applications. With the aid of multiple quantitative experiments conducted on animals placed in isolated chambers, Ivan Pavlov, the Nobel Prize-winner from Russia, described 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 believed in the existence of three basic characteristics of nervous processes: strength, balance, and agility. He also suggested that an individual's entire behavior could be described in terms of strength, balance, and agility of the nervous processes. His theory appeared to many to be scientifically sound and simple and seemed unfaultable. Pavlov believed in the experimental method to understand behavior, and he made a significant contribution to psychology (we examine it in detail in Chapter 7). However, later studies showed that his theory did not apply well to explain human behavior. A "strong and balanced" individual in one set of circumstances may be "weak and imbalanced" in another. Besides, physiologists using Pavlov's theory have not been able to show specific physiological mechanisms in the brain that would represent 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, as 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 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).

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

<i>Theory, Views</i>	<i>Critical Points</i>
 <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 about the existence of the effects of magnetism.</p>
<p>The term neurasthenia was widely used by clinicians to explain the etiology of several dysfunctions, including various forms of anxiety and depression.</p>	<p>The concept of <i>weakness of nervous system</i> 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>

Popular Beliefs

Another type of psychological knowledge manifests in **popular 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 ability of dreams to predict the future, are very broad. Others, such as a friend’s recommendation about how to ask a professor for a deadline extension, are very specific. Popular beliefs are, to some degree, working hypotheses that people use to make sense of themselves and other people.

Contents of Popular Beliefs. Quite often, popular beliefs describe various aspects of human life properly 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 our relationships. In many other cases, popular beliefs are inconsistent, inaccurate, or contradict scientific knowledge. For example, many people today believe in the existence of 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 would tell you that if you startle a child, it may cause the child’s permanent stutter. Science again suggests that this is for the most part an incorrect assumption. 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 beliefs that masturbation causes mental retardation. These beliefs continue to have a significant impact on behavior and self-knowledge of millions of people around the globe. Contemporary science, however, finds little evidence that masturbation causes psychological abnormality (Laqueur, 2004).

Historically, before the birth of mass media, 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 different names in different times and cultures. They were astrologists and shamans, psychics and spiritualists, mediums and witch doctors. Today, like many years ago, they claim they can heal depression or anxiety with magic words or magnetism. They advise 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 often labeled *popular psychology*, or simply **pop psychology**. In the history of psychology, a clear demarcation line between scientific knowledge and popular beliefs began to appear by the end of the 19th century, which was the era of mass literacy in most developed countries (Coon, 1992). Today, most information about

psychology reaches people through the media—newspapers, television, radio, popular books, and the Internet. This information tends to be simplified and even sensationalized. An emphasis on simplicity and sensationalism is the essence of pop psychology.

Bookstore shelves display hundreds of pop psychology books. Magazine columns advise on a wide variety of psychological issues, ranging from how to please a husband to how to cure anxiety symptoms. Beginning in the 1990s, television or radio talk shows featuring psychology experts attract multimillions of fans. Countless websites and blogs provide information on a variety of psychological issues. Many contributors to such websites or television shows have degrees in psychology or medicine, and it seems that a lot of information on the Web comes from reliable sources and contains accurate information. Nevertheless, most of the shows featuring psychologists seek sensationalism to increase their ratings. Reliable, scientific knowledge is frequently brushed aside by today's pseudo-psychologists for the sake of ratings increased by a boiling controversy.

Today, as many years ago, popular beliefs continue to influence people's lives, their daily practices, and decisions. Folk theories about child rearing, marriage, mental illness, sexuality, dreams, causes of success, or cures 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

The third type of knowledge is found in human **values**. In contrast to folk beliefs, this type of knowledge stems from established, stable perceptions about the world, the nature of good and evil, right and wrong behavior, purpose of human life, 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: value-based ideas often 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 to avoid misfortune is a value too. A belief that homosexuality as a sin that has no place in human life may also be a value.

The power of ideology to affect scientific knowledge and people's behavior is significant. History shows that people could ignore or reject science in favor of ideology. Some may turn ideology against science. In Nazi Germany of the 1930s, ideology hijacked science to justify racism and discrimination against ethnic minorities and the mentally ill. In the Soviet Union, psychologists writing papers or dissertations had an obligation to quote Karl Marx or other Communist leaders. In Communist China, in the 1960s, a rare translation of a Western psychology textbook was accompanied by the specially written concluding chapter titled, "The Backwardness of Present Capitalistic Psychology." Chinese psychologists were instructed to view Western psychology critically, within the context of Communism (Whittaker, 1970, p. 758). Evolution still

cannot be taught in some U.S. public schools because it conflicts with some people's fundamental values (Tryon, 2002).

Religion is probably the most powerful source of values. People use religion to explain their experience and justify their own 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, 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 motivated many individuals to believe that some severe forms of mental illness are God's punishment for inappropriate behavior (Shiraev & Levy, 2009). While many people today turn to licensed therapists for help, others reject professionals and turn to religion for behavioral prescriptions.

Values often play a positive role in people's lives. However, in the past, some of these values justified harassment and abuse of individuals whose behavior was different from the prescribed patterns. In the following chapters, you will find examples of authorities in the past who discriminated against individuals who showed symptoms of mental illness.



CASE IN POINT

Social Values and Psychological Knowledge. Consider two cases about how values affected scientific knowledge. The first case is *drapetomania*, or so-called Pathological Craving for Freedom. In the 19th century, this diagnosis was often given to black slaves in the United States who had made repeated attempts to escape from their owners. Medical professionals viewed this behavior of the slave not only as deviant but also pathological. Why? The predominant view was that a person who doesn't understand his "place" in society must have serious psychological problems.

The second case refers to the former Soviet Union. In the 1970s and 1980s, the Communist Party assigned a number of Soviet psychiatrists to treat political dissidents (the opponents of the Communist régime). Many civil rights activists, who did not support Communist ideology, were forcefully hospitalized to mental institutions with the following official diagnosis: 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). This was a method by which the government used psychology to create a new category of mental illness.

We should understand that back in their time, the majority of medical professionals in the mentioned countries accepted *drapetomania* and *delusion of reformation* as valid scientific categories.

Legal Knowledge

Finally, **legal knowledge** represents the fourth type of judgment related to psychology. This knowledge appears in the form of legal prescriptions established by authorities (ranging from tribal leaders to state governments). Legal knowledge provides legitimate reasons for important decisions about life and death, marriage, people's rationality, sanity, ability to raise children, and so forth. For example, in the United States as well as in many other countries, it is legal to marry for a person who is 18 years old. People in most circumstances don't plan their marriages at 16 and consider the very idea of an early marriage inappropriate. In some other countries parents insist that their children, especially daughters, get married early, at 14 and even earlier. Physical punishment of children is accepted in many countries as an effective method of upbringing. In most Western countries, however, physical abuse of a child is likely to be 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, legal definitions of insanity, which we examine in Chapter 6, are different from science-based definitions of mental illness.

Legal rules are not likely to explain what life and death are. Court documents do not provide scientific information about why individuals in the United States are prohibited from consuming alcohol before they reach 21 years of age. Yet legal rules establish boundaries of acceptable human behavior and affect customs and practices in millions of families. They may directly affect our judgments, emotions, and thought. 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 define homosexuality as an "illegal" lifestyle, which is a punishable crime.

In the next section, we compare the four types of knowledge in psychology and apply them to contemporary contexts.

✓ CHECK YOUR KNOWLEDGE

- What are the three recurrent themes in psychology's history?
- Why is mesmerism viewed as unscientific today?
- Give an example of a scientific fact and popular belief related to human behavior.
- 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 might hear something mysterious such as, “Dreams are your spiritual life.” 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 are rooted in scientific knowledge. You can imagine how many different answers we can find when we look back in history and collect views of dreams from a historical perspective.

As another example, in a contemporary American city many individuals who seek treatment for their alcohol-related addiction are likely to turn to 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 who try to stop abusing alcohol take their seats around hot rocks and then pour water on them. Steam from the rocks is believed to purify the people who sit nearby. They believe they can rid themselves of addiction 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 important factors causing people’s abnormal psychological symptoms (Turner, 1997). Science 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 of and relieving many of an individual’s mental, emotional, or psychosomatic problems. Fundamental to the system is the concept of the *engram*, 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). Many 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 upon physical evidence. Yet people who follow scientology, many of them highly educated, accept dianetics as science. As you can see, individuals may consider their religious values as scientific knowledge and believe in its accuracy and validity.

In the history of psychology, the four types of knowledge are deeply interconnected. Commonsense assumptions, such as how to deal with deep sadness or how to interpret dreams, have always been part of people’s knowledge about mental phenomena. These assumptions have been influenced by a continually changing flow of new facts and opinions. At certain times in history, as we will see later in the book, values-based doctrines, often embedded in organized religion, have had a tremendous impact on popular, scientific, and legal knowledge. Value-based, deeply seated cultural knowledge tends to resist rapid changes, but it transforms too. Legal psychological knowledge changes together with continuous transitions taking place in society.

All four types of knowledge were inseparable parts of the social environment within the developing human civilization.

Society and Psychology's History

Historians agree that the social, political, and academic atmosphere unique to particular historic times and locations was crucial for psychology as a discipline (Danziger, 1990; Leahey, 2002). In the past, specific societal conditions created either favorable or unfavorable circumstances for psychological knowledge and psychology as science. 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 psychology that received support from state-sponsored universities. At least three factors should help us understand the complex interaction among society and psychological knowledge: resources, social climate, and 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 Chinese emperors invested in science and sponsored court scholars. The wealth accumulated in America at the beginning of the 20th century stimulated the rapid development of its universities.

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, for example, Herbert Spencer in England and Benedict Spinoza in the Netherlands. Hermann Ebbinghaus of Germany conducted his famous 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. Science always needs a favorable social climate.

Social Climate

Psychology's history is difficult to separate from specific social conditions within which it developed. **Zeitgeist** is a term standing for the prevalent social climate, or, translated literally, the "spirit" of a particular time or generation. Both favorable and unfavorable social climates accompanied the development of psychological knowledge (Ludy, 1986).

Social opposition could put brakes on any research. Take, for example, human sexuality as a subject of psychological investigation. In the Soviet Union of the 1970s, psychology as a scientific discipline was booming. The government sponsored psychological research, opened new university departments, and created many faculty positions. National conferences and research seminars became frequent. However, government authorities rejected almost any research in the fields of human sexuality, which was considered an ideologically inappropriate field. The public, at least a substantial portion of it, also considered any public discussion of sexuality obscene. Many ordinary people supported strong restrictions on sex education in Soviet schools (Shlapentokh, 2004). The government reinforced the existing social climate of cultural conservatism in the Soviet Union.

Have things been much different in the United States? 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, 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. The difference between the situations in the United States in the 1940s and the Soviet Union in the 1970s was that in America, despite some strong public opposition, the government was unlikely to interfere in psychological research, while in the Soviet Union it was the government that determined what scientists should and should not have studied.



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 book website contains a link to a site related to the film.

Scientific theories, in turn, can affect social climate. How? Scientific knowledge commonly affects values and popular beliefs. 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 scholars did little to discourage these attitudes. Non-European ethnic and racial groups were commonly presented in simplistic and 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, a growing number of studies began to challenge these simplistic popular perceptions of other cultures. One of the groundbreaking studies was *The Mind of Primitive Man*, written by Franz Boas (1911), one of the founders of modern anthropology. The central premise of his approach, immediately supported by scores of 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 affected a gradual shift of social attitudes about history, culture, and social equality. This shift, however, did not take place overnight.

Academic Tradition

Psychology’s history is a history of academic traditions. They bring together scholars who share similar views on a particular approach, subject, or method. There are real associations involving interacting individuals, and there are traditions that are used mostly as convenient symbols to indicate a similarity in the 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 priorities took place in the second half of the 20th century. The traditional talk therapy tradition was gradually replaced by a new tradition embracing faster and more efficient methods of behavioral and cognitive treatment. (We discuss this in Chapters 8 and 11.)

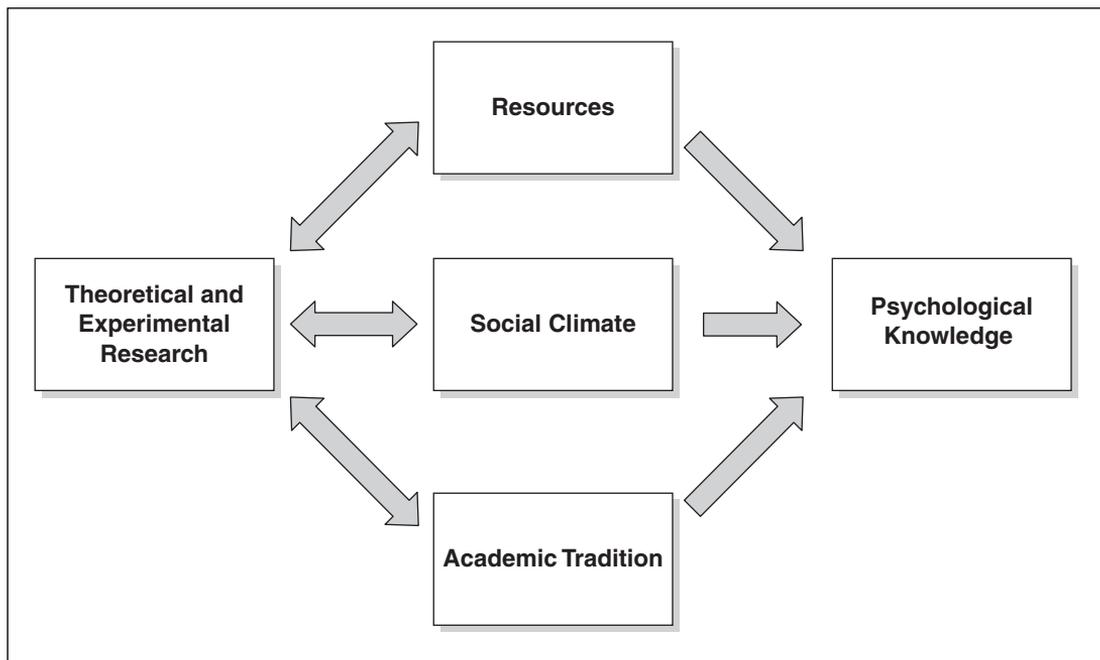
Academic traditions serve several functions. The first is communication. Scientists have a chance to discuss their ideas and research. There are passing traditions, such as discussion clubs, in which scholars sharing common views stayed in touch with one another for some time. In the 18th century, the 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, shortly after Wilhelm Wundt had established his laboratory in Germany (1879), in the United States 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). Expectedly, scientific ideas receiving scholarly attention and informal support had a greater chance to develop and win more supporters in the future. Similarly, some well-accepted ideas are likely to fade away under the pressure of their critical evaluations. This is exactly what happened to the theoretical ideas of Wundt, as we will learn in Chapter 4.

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—were closely associated with government and authority. Sometimes blended with government institutions, formal academic associations frequently played the role of academic sponsors and censors. Some research was enthusiastically promoted while other studies were hastily suppressed. For instance, psychology in Europe and North America in the 19th century could not turn to experimental studies of mental activities until after university authorities and supporting academic associations began to enjoy academic freedom.

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.)

Figure 1.1 Societal Impact on Psychological Knowledge



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 by 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

Define social climate or *Zeitgeist*.

Recall three main functions of academic tradition.

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. Moreover, it is frequently 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, there are other studies, like the 1971 Stanford prison experiment by Philip Zimbardo and his colleagues, that 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 knowledge. However, what is called significant is subject to a wide range of interpretations (Kendler, 2002; Lakatos,

1970). Let's address the question of significance by discussing several assumptions related to historiography.

Peer Review and Significance of Knowledge

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 it has been broadly recognized by qualified peers. Peer acceptance is an important factor in determining the value of psychological 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 2008, William James is referred to 67 times (ranked number one), the name of John Watson is mentioned 47 times, the name of 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 psychology 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 about the top 10 most influential psychologists from the past (Korn et al., 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 attempt to secure funding for their research and deny support to others (Fara, 2009). There are also institutional traditions that may or may not be supportive of certain scientific fields. Consider the Nobel Prize, an undeniable indicator of prominence. How many scientists-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 three times with the same disappointing result. Ivan Pavlov was nominated five times: four times his name was suggested for his research on the nervous system and reflexes; one time he was nominated for his research in physiology of digestion. Pavlov won the Nobel Prize for physiology or medicine in 1904. 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 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 claimed that he had never taken a single economics course in college) by introducing fundamental research on people's mistakes of judgment in investments and trade.

As you can see, scores of psychologists and other scientists who have contributed to psychology are not on the list. They have been overlooked by the Nobel Prize selection committee. But does this fact make researchers who haven't won the prize less important than those who have? In historiography, peer recognition is an important factor, yet there are other factors affecting the selection and preservation of knowledge in psychology (Pickren, 2003).

Support or rejection by peers does not guarantee that a researcher's name and his or her works will remain in history. Mesmerism, as you recall, was increasingly rejected in academic circles across Europe in the 19th century, yet this theory was popular and remains well known today. Wundt received recognition for his impact on psychology; however, most attention today is given to his organizational talent. His theoretical views lost their perceived significance very rapidly. 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 positive or, frequently, controversial.

Impact and Controversy

In the 1930s, a group of psychologists conducted a long-term experimental study in Iowa. The researchers studied children in orphanages and adoptive homes and documented remarkable upward movement in the IQs of young children who were exposed to stimulating environments in well-educated, economically secure families. Filled with methodological errors, this study did not produce reliable data. However, this research became noticeable for its scope, daring goals, and a variety of methods used. It appeared for some time as a research landmark, or as a reminder to psychologists to pay extremely careful attention to methodology (Herman, 2001). This study also illustrated that psychological knowledge can stand out if it affects the work and the views of other scholars. An event in history may be overlooked by a few peers, yet this same event can shape the experience of many others.

Look, for example, at the life and work of Stanley Milgram. He designed, as you might remember from introductory psychology classes, a series of experiments to study obedience to authority. He conducted his experiments at a small laboratory at Yale University in 1961–1962. 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. Most peers-critics believed that the subjects in this experiment had been abused and traumatized emotionally. Milgram was heavily criticized for this. Although he later conducted other original experiments, his name is forever associated in psychology books with that original Yale University study, which psychologists call today the *Milgram experiment*. This landmark study showed that obedience to authority is common in ordinary people and that many of us could act unethically if someone else takes responsibility for our behavior. But most important, the study highlighted the vital importance of ethical guidelines in psychology experiments (Blass, 1992; Milgram, 1963).

Research conducted by Harry Harlow also belongs to the category of original landmark projects that sparked attention and encouraged new research. Harlow and his

colleagues showed that infant monkeys prefer a soft terrycloth mother surrogate to a wire one, even when only the wire one dispenses milk. The research showed the importance of attachment and its impact on an individual's development (Novak & Harlow, 1975). Attachment became a central topic of psychological studies for many years to come.

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 have 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 of such actions. William James, a prominent American psychologist of 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, theoretical political science literature today contains references to William James's critical work on the nature of war and attracts attention of students and scholars from other disciplines (Betts, 2005).

In the age of the media, 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 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 attention to researchers and their work.

Most psychologists do not seek controversy or scandal to grab attention. In the history of psychology, however, selective attention has sometimes been given to research associated with social prestige and power.

Social Prestige and Power

Historians admit that in the history of science, individuals of higher social status had a better opportunity to have their scientific ideas initially accepted than anyone else (Fara, 2009). In theory, talent should always 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 wealthiest families. Several exceptions, of course, existed. But the association with the powerful was common for most prominent thinkers before the 18th century.

Today's psychologists (with rare exceptions) do not directly serve presidents and prime ministers. For nearly 200 years most scientists contributing to psychology have worked for colleges and universities. 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 a psychological theory created at Harvard, Cornell, Columbia, or some other "top" school should receive more attention and a better reception from scholars. However, very few will deny that the 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 accept 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 always buy the best talent in psychology. For example, one of the most quoted early studies of memory was conducted in the 19th century by Hermann Ebbinghaus, who at that time was not a university professor. Wilhelm Wundt's laboratory was in Leipzig, not in Berlin, which was the most prestigious German university with a reputable psychology department. Probably the most quoted early specialist on intelligence, Alfred Binet, couldn't secure employment at the premier French university of his choice. The only psychology professional who won the Nobel Prize had worked at the University of Oregon, which is not an Ivy League school. One of the founders of social psychology, Kurt Lewin, settled down at the University of Iowa. World-renowned Abraham Maslow taught at Brooklyn College. One of the most quoted contributors to psychology, Sigmund Freud, as well as Herbert Spencer, did not hold a full-time professorship.

Wilhelm Stekel, one of Freud's earliest followers, was expelled from the psychoanalytic movement in 1912 because of his alleged personal mistakes (we discuss them in Chapter 8). Although he remained active as a psychoanalyst, most psychologists are unaware of his post-1912 work, which was considerable. Wilhelm Stekel was a productive writer. 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 papers. Altogether, he wrote 36 books, 179 articles, and 153 abstracts and reviews (Bos, 2003). Should we assume that Freud's poor relations with his former supporter have influenced our perception of Stekel? Most likely this is not the case. Freud had several followers beside Stekel. Two of them were Carl Jung and Alfred Adler, who continued their work after breaking with Freud. Today they 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 and depends on many other factors.

The history of psychology is a product created by academic superstars as well as by scores of individuals who remain virtually unknown today (Leahey, 2002). In our study of psychology's past, we shouldn't overlook the importance of contributions made by lesser-known individuals who took their part in shaping the body of contemporary psychological knowledge.

Paying 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 in cases when equality was protected by law, 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 university's male-dominated hierarchies. You will observe continuously in many chapters of this book that gender has been a very important factor affecting the development of psychology as a discipline and psychological knowledge as well (Riger, 2002). Consider just one example.

In 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 widely assumed, should be a watchful and meticulous person. He should be lacking any emotion or passion, like excitement, disappointment, or jealousy. Women at that time were commonly regarded as too subjective, unstable, and sentimental (Keller, 1985). If we follow this logic, the psychology researcher must have been wearing a pair of pants and a mandatory 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. In other words, a better role for a woman was research assistant, not principal investigator (Noon, 2004.) As a result of these beliefs and practices, until recent times accomplishments and aspirations of women were too frequently underestimated, overlooked, or simply ignored.

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

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 Western cultural tradition deserve 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 to other national schools. As a result, most textbooks available today describe various schools of thought and specific theories 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 the most remarkable and significant contributors to contemporary psychology. However, there are no less noteworthy and outstanding contributions coming 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 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 many 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'



ON THE WEB

You can easily access links to the APA article on women in psychology on the book website.



CASE IN POINT

Women Psychologists in North America. Psychology for centuries has been a male-dominated field. In 1950, only 15 percent and in 1960 only 18 percent 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 2113, if the trend continues, women would receive 70 percent 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 are awarded to men.

Source: American Psychological Association (2009)

choices in selecting, presenting, and promoting materials related to the history of psychology. In the following chapters, we address these and other cultural biases.

✓ CHECK YOUR KNOWLEDGE

What does historiography study?

Who was the first psychologist to win the Nobel Prize? In which field?

What is ethnocentrism in psychology?

Understanding the History of Psychology

The history of psychology as the history of science is not necessarily a straight line of growth and improvement (Kuhn, 1962). There were distinct psychological schools. Each school had a time and place of birth, followed by a period of development, and concluded by a phase of decline. Then a new school was born and developed through similar stages. Studying the history of psychology, we often tend to assemble the known facts into convenient groups with suitable labels attached. For example, it is convenient to understand the development of psychology as a movement from one historical generation of psychologists to another. It is easy to divide psychologists who lived in a certain period into two categories: those who belonged to a scientific school (behaviorists, for instance) and those who didn't.

No Straight Pass

However, by using this straight-line approach, we run the risk of presenting psychology in a very simplistic way. Look at the following deliberately simple presentation of psychology's history over the past 150 years. In the following example, a line in history appears as a sequence of identifiable labels (we will study all these categories and labels mentioned in the case later, in practically every chapter of the book):

Philosophers and physicians, who studied 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.

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.

Nevertheless, many other psychologists did not want to associate their names with categories, schools, or associations. We will learn that the convenient division of psychology of the early 20th century into structural and functional types was not commonly recognized 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 comprised of innumerable shades of gray (Levy, 2009). In many cases, a "No labels attached" understanding of a psychologist's work helps us to understand that work better.

Categorizing is, to some degree, an American 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.

What is an alternative to these apparent simplifications? Studying the history of discrete psychological schools, their birth, development, and decline, we will look at many turns, gray areas, theories, and concepts that did not always fit into the convenient boundaries of psychological schools. And you will find that there are plenty of such theories and names!

Fragmentation and Standardization

Since the dawn of psychological research, scientists consistently expressed dissimilar opinions on almost every topic. One hundred years ago they could not even agree 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 years passing by, the situation within the field of psychology was becoming more confusing. 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 psychoanalysis would skip publications of Gestalt psychologists. The fragmentation of knowledge in psychology was evident since 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 an apparent fragmentation and specialization of psychologists preoccupied with their own models and methods, psychologists received a great 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 universally available. In this process, psychological knowledge

was becoming more standard, consistent, and interrelated. We can call his process the standardization of knowledge. Three factors stimulated the process of psychology's standardization.

First, the development of market-oriented principles of governing established in many societies through the 20th century gave psychologists great opportunities to seek practical applications of their research in education, business, assessment, training, and health care fields. Practical needs led many psychologists to acknowledge the existence of some general psychological theories and facts and develop a sort of a universal professional language of psychology.

Second, because of the growing sophistication of psychological research, many psychologists no longer could afford to conduct big and comprehensive studies. It was the time of specialization, which, in effect, led to the recognition that the same phenomenon (parent-child interaction, as an example) 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, 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 field and future profession.

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

✓ CHECK YOUR KNOWLEDGE

Explain standardization of knowledge in psychology.

Why couldn't scientists create a single, universal psychological theory?

Conclusion

Pessimists who emphasize fragmentation are likely to look at the history of psychology as a sequence of failed theories. This is how the pessimists see it. First, a theory initially attracts enthusiastic supporters. Then critics find weaknesses in this theory. 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 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 enlighten our knowledge. Let's call this approach *integrative* as some psychologists suggest (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 approaches. 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 relatively separated from one another approaches? There are serious arguments against an advanced consolidation of psychological knowledge. Any attempt at consolidation 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 other eliminated. Competition of ideas no longer will 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 this scenario?

Psychological knowledge is strong because of its diversity.

Summary

- The book undertakes a scientific investigation of psychological knowledge from a historic perspective. Psychological knowledge is inseparable from the social, economic, and cultural contexts in which it develops.
- Although psychology as an academic discipline had received its initial recognition by the end of the 19th century, its development began 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: the mind-body problem, the interaction of biological and social factors in human behavior and experience, and the balance between theoretical knowledge and its practical applications.
- 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, and legal.
- The social, political, and academic atmospheres that were 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 among society and psychological knowledge: resources, social climate, and academic tradition.

- 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 based on opinions of peers, social impact of research, controversies involved, and social prestige. Gender bias and ethnocentrism also affected psychology's history.
- The history of psychology as the history of science is not necessarily a straight line of growth and improvement. Psychologists consistently expressed dissimilar opinions on almost every topic. Fragmentation, standardization, and integration of psychological knowledge continued throughout its history.

Key Terms

Ethnocentrism	Legal knowledge	Popular (or folk) beliefs
Historiography	Neurasthenia	Scientific knowledge
Ideological (value-based) knowledge	Placebo effect	Values
Knowledge	Pop psychology	Zeitgeist