2006

Psychology

David E. Leary
University of Richmond, dleary@richmond.edu

PSYCHOLOGY. Psychology, in a general sense, is age-old, extending back across all cultures to the beginnings of recorded time. The healing arts of ancient doctors and the conceptual musings of ancient sages often pointed toward factors that would be considered psychological today. Nevertheless, psychology in its specifically modern sense dates from the second half of the nineteenth century, when a self-consciously scientific, academic, professional discipline took shape in Europe and North America. This multiplex discipline grew and flourished in particular in the United States, where more than forty experimental laboratories, associated programs of research and study, and institutionalized means of communication, certification, and application were established, or at least initiated, in the last two decades of the nineteenth century. But even in the United States, where unique social and historical conditions facilitated it, the development of psychology depended on a common philosophical background and various traditions of research that had evolved in Europe.

COMMON PHILOSOPHICAL BACKGROUND

The common background provided by philosophers reflected both religiously grounded rationalism and scientifically inspired empiricism. Mindful of the achievements of Isaac Newton (1642–1727), John Locke (1632–1704) popularized the belief that the mind is a receptacle within which atomistic sensations, images, and ideas are drawn to one another by certain "laws of association." His *Essay Concerning Human Understanding* (1690) stimulated a long line of thinkers who modified these laws according to their own experience and reflection. Alexander Bain (1818–1903) and Herbert Spencer (1820–1903) were important nineteenth-century representatives of this tradition, which was incorporated into the new scientific psychology. Bain's journal *Mind* (founded in 1876) served as a major publication outlet for work in this tradition.

Meanwhile, the philosophical works of René Descartes (1596–1650) emphasized the distinction between mind and body, thus driving a sharp wedge between rational analyses of thought and language, on the one hand, and mechanistic interpretations of bodily action, on the other. The former analyses were consonant with religious beliefs about the soul. The latter interpretations foreshadowed, in some respects, the later transformation of Locke's association of ideas into an association of physical stimuli with reflexological responses. Over the coming centuries many theorists drew from both associationism and reflexology, while others continued to produce theories about the nature and functions of the mind based primarily on rational considerations.

The great French *Encyclopedia* of the mid-eighteenth century expressed this common background in the dualistic terminology of Christian Wolff (1679–1754), who contended that there are two kinds of psychology, epitomized in his *Empirical Psychology* (1732) and *Rational Psychology* (1734). At the end of the century, Immanuel Kant (1724–1804) accepted this distinction and argued that empirical psychology, though pragmatically useful, would remain forever fallible, while rational psychology, contrary to Wolff and others, would never reach the level of apodictic, or certain, truth. In defining the parameters of a "true science," however, Kant provided a road map for subsequent thinkers who developed the conceptual framework of psychology while making it increasingly mathematical and experimental. Meanwhile, the more rational side of psychology was further developed by followers of Georg Wilhelm Friedrich Hegel (1770–1831), leading eventually to the phenomenological psychology inspired by Edmund Husserl (1859–1938). Though buttressed by empirical and even experimental evidence, social and personality psychology still bears the impress of this side of the common

background. The French journal *L'Année psychologique* (established by Alfred Binet in 1894) supported these developments.

DIVERSE EUROPEAN RESEARCH TRADITIONS

Against this common background, various national traditions provided other elements that are now embedded within modern psychology. Although instances of each tradition existed in other European countries, it is useful to highlight the naturalistic tradition of Britain, the experimental tradition of Germany, the psychiatric tradition of France, and the physiological tradition of Russia.

In Britain, Charles Darwin (1809–1882) brought the tradition of naturalistic observation to bear upon the development of evolutionary theory. In *On the Origin of Species by Means of Natural Selection* (1859), he established the basis for a comparative understanding of human and animal behavior within the context of physical and biological environments. His focus on the advantages and disadvantages of random variations among individuals within any given species encouraged his cousin, Francis Galton (1822–1911), to undertake a systematic study of human variation, which in turn spurred further investigation of individual differences with regard to various attributes and talents. In later works, Darwin himself applied evolutionary principles to the human situation, thus strengthening the foundation for comparative psychology. George Romanes (1848–1894) and C. Lloyd Morgan (1852–1936), among others, advanced this area of human and animal psychology, relying in part on assumptions from Lockean associationism.

The distinctive German contribution was the development of an experimental tradition in psychology. Wilhelm Wundt (1832–1920) has been given primary credit for this, though he and others depended upon previous experimental work in physiology by such individuals as Johannes Müller (1801–1858) and Hermann von Helmholtz (1821–1894), as well as upon the institutional support provided for experimental research by many German universities. Illustrating the international nature of what was occurring, Wundt too drew theoretical assumptions from Lockean associationism. With the publication of his *Principles of Physiological Psychology* (1873–1874) and the establishment of his psychological laboratory at Leipzig (1879), he began to attract students from other countries, including the United States. The quantity of work done in his lab warranted the founding of an influential journal, *Philosophische Studien,* in 1883.

In France, the discovery of hypnosis and the development of neurology were each reflected in the emergence of a distinctive tradition of psychiatry. Stimulated by the work of clinicians and researchers who followed up on the discoveries of Franz Anton Mesmer (1734–1815) and the conjectures of Franz Joseph Gall (1758–1828), Jean-Martin Charcot (1825–1893) and Pierre Janet (1859–1947) studied alternative states of consciousness and speculated about the possible neurological bases for these states, including various kinds of mental disease. Charcot's *Lectures on the Diseases of the Nervous System* (1889) was a major outcome of this work. The therapeutic insights and practices that evolved from this line of research had a profound influence on the development of psychoanalysis by the Austrian psychiatrist Sigmund Freud (1856–1939) and the articulation of alternative psychotherapeutic insights by the American psychologist William James (1842–1910), both of whom attended the first International Congress of Psychology in Paris (1889), over which Charcot presided.

The distinctive Russian developments, leading eventually to the Nobel award-winning work of Ivan Pavlov (1849–1936), involved physiological research that was conceptualized in terms of reflexology, first by Ivan Sechenov (1829–1905) and then by Vladimir Bekhterev (1857–1927). This line of research, especially the terminology of Bekhterev's *Objective Psychology* (1907–1912), inspired the American John B. Watson (1878–1958) to postulate that all behavior is ultimately reducible to concatenated reflexes, whether innate or learned. Watson's formulation of "behaviorism" in the second decade of the twentieth century influenced a wide range of psychological theory and practice, in Europe as well as the United States, though European psychologists never rejected mentalism to the extent that many American psychologists did over the next half century.

OVERLAPS AND DISJUNCTIONS

No short overview of psychology in the nineteenth century can convey the number and complex interactions of relevant figures, works, traditions, and developments. For instance, there were important non-British comparative naturalists like the German Ernst Haeckel (1834–1919), major non-German experimentalists like the Dutch F. C. Donders (1818–1889), groundbreaking non-French psychiatrists like the British Henry Maudsley (1834–1918), and significant non-Russian physiologists like the Spaniard Santiago Ramón y Cajal (1852–1934). While most researchers focused on the psychology of the white, adult male, presuming that their findings would reveal universal laws, some—including Darwin and Wilhelm Preyer (1841–1897)—pioneered the empirical study of child development, and others—often associated with "psychical research"—began studying females, then thought to be more susceptible to emotion, suggestion, and other conditions, thus suggesting lower levels of rationality. Meanwhile, the emergence of national and ethnic identities and the continuance of social unrest throughout the nineteenth century drew attention to the nature and processes of social identity and behavior. Wundt's ten-volume *Folk Psychology* (1900–1920) and the work of Gabriel Tarde (1843–1904) and Gustave LeBon (1841–1931) on imitation and crowd behavior contributed to knowledge in this area.

Some lines of research, like the psychophysics proposed by Gustav Theodor Fechner (1801–1887), were developed in relative isolation and have continued in the same basic form into the twenty-first century. More typical, however, have been changes and discontinuities that have kept psychology from becoming a completely unified discipline. Especially since applied psychology emerged more strongly in the early twentieth century in clinical, school, industrial, wartime, and policy-related settings "psychology" has covered a vast array of differing theories and practices. In addition, jurisdictional disputes with other sciences and tendencies toward disciplinary fragmentation have been apparent since the late nineteenth century, as psychologists have addressed a host of issues, ranging from the minutely physiological to the broadly cultural.

See also **Charcot, Jean-Martin; Darwin, Charles; Freud, Sigmund; Gall, Franz Joseph; Helmholtz, Hermann; LeBon, Gustave; Mesmer, Franz Anton; Pavlov, Ivan; Psychoanalysis; Wundt, Wilhelm.**

BIBLIOGRAPHY

Boakes, Robert. *From Darwin to Behaviourism: Psychology and the Minds of Animals.* New York, 1984.

Danziger, Kurt. *Constructing the Subject: Historical Origins of Psychological Research.* New York, 1990.

Finger, Stanley. *Origins of Neuroscience: A History of Explorations into Brain Function.* New York, 1994.

Koch, Sigmund, and David E. Leary, eds. *A Century of Psychology as Science.* 2nd rev. ed. Washington, D.C., 1992.

Smith, Roger. *The Norton History of the Human Sciences.* New York, 1997.

Woodward, William R., and Mitchell G. Ash, eds. *The Problematic Science: Psychology in Nineteenth-Century Thought.* New York, 1982.

DAVID E. LEARY