



1958

## 4. Psychology

Robert L. Bloom  
*Gettysburg College*

Basil L. Crapster  
*Gettysburg College*

Harold L. Dunkelberger  
*Gettysburg College*

*See next page for additional authors*

Follow this and additional works at: [https://cupola.gettysburg.edu/contemporary\\_sec21](https://cupola.gettysburg.edu/contemporary_sec21)

 Part of the [Psychology Commons](#)

**Share feedback about the accessibility of this item.**

---

Bloom, Robert L. et al. "4. Psychology. Pt. XXI: Meaning in the Social Sciences." Ideas and Institutions of Western Man (Gettysburg College, 1958), 39-50.

This is the publisher's version of the work. This publication appears in Gettysburg College's institutional repository by permission of the copyright owner for personal use, not for redistribution. Cupola permanent link: [https://cupola.gettysburg.edu/contemporary\\_sec21/4](https://cupola.gettysburg.edu/contemporary_sec21/4)

This open access book chapter is brought to you by The Cupola: Scholarship at Gettysburg College. It has been accepted for inclusion by an authorized administrator of The Cupola. For more information, please contact [cupola@gettysburg.edu](mailto:cupola@gettysburg.edu).

---

## 4. Psychology

### Abstract

Psychology is the scientific study of the behavior of organisms, particularly the processes involved in the complex organization of these organisms as individuals. The processes are studied from the analytic biochemical view (overlapping physiology) to the broad view of the effect of group activities on individual behavior (overlapping sociology). [*excerpt*]

### Keywords

Contemporary Civilization, Psychology, Philosophy, Experimental Science, Physiology

### Disciplines

Psychology

### Comments

This is a part of [Section XXI: Meaning in the Social Sciences](#). The [Contemporary Civilization](#) page lists all additional sections of *Ideas and Institutions of Western Man*, as well as the [Table of Contents](#) for both volumes.

### More About Contemporary Civilization:

From 1947 through 1969, all first-year Gettysburg College students took a two-semester course called Contemporary Civilization. The course was developed at President Henry W.A. Hanson's request with the goal of "introducing the student to the backgrounds of contemporary social problems through the major concepts, ideals, hopes and motivations of western culture since the Middle Ages."

Gettysburg College professors from the history, philosophy, and religion departments developed a textbook for the course. The first edition, published in 1955, was called *An Introduction to Contemporary Civilization and Its Problems*. A second edition, retitled *Ideas and Institutions of Western Man*, was published in 1958 and 1960. It is this second edition that we include here. The copy we digitized is from the Gary T. Hawbaker '66 Collection and the marginalia are his.

### Authors

Robert L. Bloom, Basil L. Crapster, Harold L. Dunkelberger, Charles H. Glatfelter, Richard T. Mara, Norman E. Richardson, and W. Richard Schubart

#### 4. Psychology

Psychology is the scientific study of the behavior of organisms, particularly the processes involved in the complex organization of these organisms as individuals. The processes are studied from the analytic biochemical view (overlapping physiology) to the broad view of the effect of group activities on individual behavior (overlapping sociology).

This introduction to psychology is divided into two major parts: first, an historical background; and second, definitions of the primary areas within the science today.

The beginning of psychology as an experimental science is traditionally set at 1879 when Wilhelm Wundt (1832-1920) founded at Leipzig the first laboratory exclusively devoted to psychological matters. It is true that William James (1842-1910) at Harvard had established rooms for psychological experimentation as early as 1875, but Wundt's laboratory was the first separate administrative unit devoted to that purpose. The work done there consisted of skilled observation of consciousness by the method of introspection. In employing this method, the individual described and analyzed his sensations. By "sensations" Wundt meant elements of individual consciousness, such as images, judgments, and feelings.

Two major lines of thought led to the founding of psychology: philosophy and experimental science, especially physiology.

The philosophical lines trace back to René Descartes (1596-1650), who stated that mind (or soul) and body interact with one another to express human life. This idea made it possible for early psychologists to believe in a free human soul while studying an entirely determined human body. Subsequently, Gottfried Wilhelm Leibnitz (1646-1716) stressed that all existence is activity, thus anticipating the emphasis in psychology on consciousness as active matter. John Locke (1632-1704) emphasized ideas as the elements of consciousness and spoke of the importance of the origination and association of ideas through experience. His concepts had a profound influence on thought which led to scientific psychology. Modern theories of learning trace back to Locke. In contrast, Immanuel Kant (1724-1804) gave support to the concept of innate ideas, and this emphasis on inborn tendencies is seen in modern psychology in the study of instinctive behavior. Kant also helped to preserve the view, threatened by the spread of empiricism, that mind is something more than merely activity in the nervous system. Contemporary psychologists are aware that the total behaving individual is more than the sum of his physiological processes. This idea does not imply the supernatural in psychology, but only the truth that a whole entity (for example, the behaving organism)

has unique qualities peculiar to its own organization, and that these qualities are not necessarily inferable from knowledge, however complete, of parts of the entity. Just as a disassembled watch tells no time, so careful, elemental analysis of behavior may fail to reveal the organism's most significant qualities. Principles like this have been recognized from early times. Their preservation through the centuries has proven valuable in physics, mathematics, and other areas of thought.

In sum, the most important positive contributions which philosophy had made to psychology up to the nineteenth century were those of developing man's interest in objective experience, directing his attention to mental processes as observable data, and suggesting that man is both equal to and more than the sum of his parts. But throughout the nineteenth century it became increasingly evident that the philosophies of the day were largely inadequate to deal with the problems of the nature of consciousness. Crucial influences in the reaching of this conclusion were Darwinian biology and other forms of evolutionary thought. Through the changes in attitude thus engendered, and through the growth of experimental physiology, the importance of a scientific approach to the behavior of man became clearer.

Physiology had begun with man's first systematic interest in bodily function. Although some of the earliest work was done by Hippocrates (c. 460 - c. 379 B. C.), it was not until the sixteenth century that dissection of human bodies was used to significant advantage. Then Andreas Vesalius (1514-1564) established a tradition in anatomy which persisted to modern times. However, because of religious resistance, nearly a hundred years had to pass before it developed further, primarily with the work of William Harvey (1578-1657) on the circulation of the blood. For the next century and a half the major contributions were in the area of description and classification, as for example, the work of Linnaeus (1707-1778) in botany.

During the early nineteenth century, the direction of impulses within the nervous system was partly designated. Physiologists also worked on the theory of the specific energies of nerves; that is, that the nerves possess in their functioning the quality of our sensations. These ideas have stimulated much work on nerve processes.

The major contributor in this area, and perhaps the most important of all in terms of effects which found their place in the growing psychology, was Hermann von Helmholtz (1821-1894). He measured the speed of the nerve impulse, and established many facts in the area of sense physiology. He also made observations concerning the organization of sensory data into meaning. These observations represented laboratory demonstrations in the Lockean tradition, culminating in contemporary research on perception.

During the early nineteenth century men mapped brain

function more precisely than ever before; and, through their techniques, justified the use of the experimental method in this subtle area. They sounded the death knell for phrenologists, who thought that one could localize personality traits from the shape of the brain as revealed in skull formation.

One other development that helped to establish psychology as an experimental science was the observing of recorded differences in delay of reaction to a stimulus. These differences were first recognized in astronomical observations, when it was noted that persons differed in judging times by the old-fashioned "eye and ear" method. These discoveries in the early nineteenth century, and the scientific interest fostered by them, created new attitudes toward perception and reaction that later proved useful.

The culmination of the trends in philosophical thinking and scientific activity that have just been sketched is seen in the work of Gustav T. Fechner (1801-1887). About 1860 he published mathematical and experimental procedures based on the assumption that mental phenomena are parallel with brain phenomena. These procedures on the experimental side involved such things as careful comparisons of judgments of minute differences in weights with physical changes in the weights themselves. Mental events (judgments) were thus measured in quantitative terms (for example, the number of times a report of "lighter" or "heavier" was given in a particular situation). This sort of examination of conscious activity proved to be a major basis for the research done in Wundt's laboratory. Fechner's work represented, then, a joining of philosophical and scientific inquiry and pointed toward the founding of psychology.

One further array of contributions to psychology had its development in both the scientific and the philosophical sources: systematic interest in hypnotism. Hypnotic phenomena have been observed since ancient times in many places. Although, for the most part, beliefs in astrology and occult phenomena fell away under the light of objective research, before this light burned very brightly men were using hypnotism, variously named, to effect "cures" and astonish the populace. Prior to the middle of the nineteenth century James Braid (c. 1795-1860) studied hypnotism under the name neurypnosis (nervous sleep) and conducted research without, fortunately, ever breaking with the conservative medical community. By the close of the nineteenth century, hypnotic phenomena served as subject matter for further scientific research, but their relevance to psychology was not noted until the work of Sigmund Freud.

Early psychology embodied the contemporary interest in the scientific approach. In England the growth of psychology was largely evolutionist, and, hence, comparative, drawing its data from the observation of lower species and attempting inferences to the higher species and man. In Germany and America psychology was primarily experimental, concentrating on measurable judgments and requiring precision. Although William James at

Harvard was anticipated by Wundt at Leipzig in founding a psychological laboratory, James was a more imaginative speaker and writer and exerted a strong creative influence on the growth of psychology. In fact, the wisdom of his thoughtful encouragement and reservations concerning experimentation, and his vision of the future of psychology are still valuable.

Note that no mention has been made thus far of the so-called mentally ill nor of behavior pathology. Interest in this area and in other applied areas was also reaching a notable peak toward the end of the nineteenth century, but the study of abnormality cannot be included accurately as part of psychology until well after the founding of Wundt's laboratory.

In fact, the first major interest in applied psychology, aside from recognition in both England and America of the importance of studying purposeful mental activity, was not in abnormal psychology as such, but in the development of tests for the measurement of group and individual traits. Alfred Binet (1857-1911) in France and James McKeen Cattell (1860-1944) in Germany and America were pioneers in this area. The testing movement has mushroomed. When judiciously applied, testing has been most effective in education, business, the military, and other areas where discrimination of abilities, capacities, and achievements is desirable. The movement is probably having at least as marked an effect on modern human affairs as the more dramatic changes brought about by Freud.

The next important area of applied psychology is psychiatry. Among those professional people who work in the area of treating behavior pathology are psychoanalysts, psychiatrists, and clinical psychologists. The analysts practice some form of psychoanalysis and, typically, have an M. D. degree. Psychiatrists always have an M. D. and may practice analysis or some other form of therapy, including the use of drugs or other medical techniques. Clinical psychologists have a Ph.D. degree and are particularly skilled in testing, diagnosis of psychogenic problems, and in originating and evaluating research. Clinicians also employ various forms of psychotherapy, often under the supervision of a psychiatrist.

Psychiatry received its greatest impetus in the person and achievements of Sigmund Freud (1856-1939), a Viennese neurologist. By 1885 Freud was already familiar with the "cures" of certain nervous symptoms through the use of hypnosis. He soon observed that these improvements were not lasting. In addition, he gradually discovered that by establishing rapport with his clients and encouraging them to talk freely without fear of condemnation, more abiding improvements resulted. Before the turn of the century he had abandoned hypnosis and was well on the way toward formulating his complex theory and method of psychoanalysis.

Today traditional psychoanalysis is practiced by a minority of psychiatrists. It is a procedure demanding considerable

investment of time (from one to five years), energy, and money. Further, some of its basic assumptions -- particularly the emphasis on the role of infantile sexuality and the incestuous attachment of child to parent -- may not be as appropriate today as they apparently were in the midst of mid-Victorian attitudes. It is interesting to note that Freud's teachings served to help in changing the attitudes that, in part, produced his techniques. The repressions and emotional problems attendant upon strict moralistic demands in a rigidly authoritarian family structure indicated to Freud, through the years, the need for psychoanalysis. Popularization of psychoanalysis, though frequently poorly done, served to help in the gradual change of the rigid attitudes themselves. His penetrating insights concerning motivation and behavior have been adopted with surprising rapidity into many facets of human endeavor, such as literature, art, and philosophy.

In spite of the brief reservations mentioned earlier, Freud's impact on modern psychiatry is profound. If a single pair of terms can designate the total field of psychology today, these terms are experimental and dynamic. The experimental aspects grew, as indicated, through the general maturing of scientific inquiry; the dynamic aspects grew subtly there but flowered in the work of Freud. He helped to spread awareness of personal adjustment problems to the degree that experimental psychologists soon found a challenge there. He produced cogent evidence for nondeliberate determination (unconscious motivation) of much human behavior, and was the first to present a thorough developmental approach in the study of behavior.

Some of his pupils, such as Alfred Adler (1870-1937) and Carl G. Jung (1875- ) modified Freud's basic assumptions and thus began modern neoanalytical approaches. Current neoanalysts are weaving contributions from sociology and cultural anthropology into their schemes, thus making some concepts more available for research. The unverifiability of Freudian principles has been a weakness to the system, but experimentalists have found ways of testing, and even of elaborating some important psychoanalytic ideas. Facts relating to repression, regression, symbolic behavior (slips of speech, gestures, mannerisms, etc.) and other related mechanisms have been demonstrated and studied under controlled conditions.

One of the strongest arguments for encouraging basic laboratory research in all fields, without regard for possible applications, is found in the immensely important work of Ivan P. Pavlov (1849-1936), a Russian physiologist and contemporary of Freud. Before there had been much courtship between clinical and experimental ideas, Pavlov not only was studying the conditioned reflex, the unit of behavior considered by some to be basic to all learning. He also had noted behavior which resembled neurosis, induced experimentally by the organism's being forced to respond to elements among which it could not adequately discriminate. He found, for instance, that dogs when forced to distinguish an ellipse from a circle, showed

erratic emotional behavior as the dimensions of the ellipse became subjectively like those of the circle. This discovery was one step in the direction of bringing studies of the causes of aberrant behavior into the laboratory.

In general, the history of psychology in the first half of our century has been marked by the usual struggles of a young science to develop an integrated body of knowledge and an appropriate methodology. Men with the professional label of psychologist now are working in areas as divergent as research on rat behavior, the diagnosis and treatment of human behavior pathology, and attempts to resolve unhealthy tensions among the people of the world.

The Annual Review of Psychology is an authoritative publication dedicated to yearly summaries of the major findings and directions in the field. A survey of four recent years shows a total of thirty different subareas of psychological investigation. These are not by any means mutually exclusive. The average list of references for one of the reviews numbers from 100 to 250 separate listings of books and articles. A vast amount of research is thus being accomplished in psychology every year. The seven most important subareas are discussed every year in the Review.

Personality study is the first. Here interest centers around the development of the uniquely patterned traits that combine to make human beings individuals. Achievement, anxiety growth, authoritarianism, creativity, personal consistency, security of the self, and self-evaluation are areas particularly evident in published research.

The next subarea is social psychology, in which some of the effects of society on the behavior of the individual are examined. Here the most promising work has come from attempts to measure observable behavior in situations involving social interaction, and from attempts to relate social-psychological phenomena to psychology at large.

The next subarea is abnormalities of behavior which we can consider together with another subarea: clinical methods (psychotherapy). Here a considerable amount of research is now aimed at separating, defining, and giving proper weight to biological as against experiential factors in the cause and cure of behavioral disturbances.

A fifth subarea entitled individual differences is concerned with close measurement of those various abilities, response tendencies, and personality traits which may be profitably considered in isolation from the total configuration of the personality.

A sixth subarea -- statistical theory and research design -- deals with those mathematical schemes and concepts which serve behavioral investigation. Statistics plays a major role



in contemporary psychology. As a matter of fact, the precise evaluation of the data acquired in any science depends on statistical techniques. These techniques have proved particularly useful in the social sciences because of the frequent lack of control "in the field." Some of the current methods yield very precise information on complex interactions, such as the effect of a given drug on one's attitudes, performance, and physiological state, and the joint effects of these on one another.

Physiological psychology is the seventh and last subarea. It represents the attempt to relate behavioral data to physiological processes. Since psychologists are basically interested in the behavior of organisms, implications from this area extend throughout the entire field.

There remain at least twenty other subareas (such as child psychology, psychology of learning, industrial psychology). When we remind ourselves that each produces 100 or more published papers per year we get some idea of the scope of psychology.

The following selection from the literature of psychology is an article examining evidence concerning the development of the thinking process. The authors conclude that the higher mental processes (such as the apparently spontaneous recognition of new meaning) are derived from the gradual acquisition of innumerable "learning sets" which have been established by earlier learning experiences. These learning sets predispose an organism to perceive a situation in a particular way, sometimes facilitating problem solving. The article is, of course, not definitive. More recent information keeps the question open and challenging: How, and to what degree, does man learn to think?

Dr. Harry Frederick Harlow (1905- ), fellow and past president of the American Psychological Association, and Dr. Margaret Kuenne Harlow (1918- ) both have done authoritative work in the areas of developmental psychology and learning theory.

**Copyrighted Material Removed**

To see this publication, or an earlier translation or edition, please see  
“Additional Resources” on the cover page.