

## Proposals for a Second Psychology

Emily D. Cahan and Sheldon H. White  
Harvard University

*During the 19th century, numerous writers including Auguste Comte, John Stuart Mill, and Wilhelm Wundt called for a second psychology, a psychology to complement laboratory-based psychology. This second psychology would address aspects of human mind and behavior that emerged from cultural life. Different forms of empiricism appropriate to a second psychology were gradually realized in studies of character formation, conduct, personality and culture, and more recently, cognition and culture. This article examines this second psychology that has been slower to mature but has achieved some contemporary realization in personology, cultural psychology, and several of the applied psychologies.*

In 1915, Hugo Münsterberg of Harvard University published a textbook, *Psychology: General and Applied*, in which he described the diversity of the American psychology growing around him. He listed his innovations in the preface. He would deal with applied, social, and purposive psychologies. He would consider what kind of science psychology could be: "Do we not deceive ourselves if we fancy that we can approach the study of mental states with the same naivete with which we can turn to the study of minerals and plants?" (p. viii). Münsterberg's most fundamental innovation was constitutional. He said there were two psychologies, one linking psychological events to causes and the other to purposes. His textbook dealt with *causal* psychology in the first section and *purposive* psychology in the second.

The causal psychologist, Münsterberg (1915) said, tries to explain mental life, whereas the purposive psychologist seeks to understand it (p. 11). Causal psychology, as opposed to purposive psychology, is (a) objective rather than subjective, (b) a psychology of mental states rather than a psychology of the self, (c) a psychology of the content of consciousness rather than a psychology of meaning, and (d) explanatory rather than interpretative. The two psychologies are complementary:

[In the causal psychology] we shall resolve the personality into the elementary bits of psychical atoms and shall bring every will act into a closed system of causes and effects. But in the purposive part we shall show with the same consistency the true inner unity of the self and the ultimate freedom of the responsible personality. *Those two accounts do not exclude each other; they*

supplement each other, they support each other, they demand each other. (p. 17)

Münsterberg's textbook included social psychology at a time when most American psychologists left it to sociology and only a few—Baldwin (1897), Mead (1909), and Dewey (1917)—were protesting that psychology ought to include it. The textbook discussed "psychotechnical sciences"—educational, legal, economic (industrial-organizational), medical, and clinical psychologies. Münsterberg was perhaps the first American academic psychologist to declare that two psychologies were forming—an experimental, objective psychology based on the methods of the natural science, and a second, subjective psychology based on the human sciences. This second psychology would treat humans as thinking, purposeful subjects and use methods appropriate for understanding people in relation to their life circumstances.

Unfortunately, Münsterberg published his textbook at a time when he was losing influence on psychology and in American society at large (Keller, 1979; Roback, 1964). One person who did notice Münsterberg's bipartite proposal was the young Gordon Allport at Harvard:

Münsterberg, looking like Wotan, was my first teacher in psychology. My brother Floyd, a graduate student, was his assistant. From Münsterberg's guttural lectures and from his textbook *Psychology: General and Applied*, I learned little except that "causal" psychology was not the same as "purposive" psychology. The blank page dividing the two corresponding sections of the textbook intrigued me. Could they be reconciled and fused? . . . I drew nourishment from Münsterberg's dualistic dilemma as well as from his pioneer work in applied psychology." (G. W. Allport, 1967, p. 6)

Later in his life, Allport would experience the reality of two psychologies, when the Harvard department that had been his academic home divided, some colleagues staying in a reduced Psychology Department and others moving with Allport to found a new Social Relations Department.

Münsterberg's 1915 textbook stands about midway in a 200-year-long tradition. Before Münsterberg, philo-

We are deeply grateful to William McKinley Runyan for a thoughtful critical reading of an earlier draft of this paper.

Correspondence concerning this article should be addressed to Emily D. Cahan, Division of Continuing Education, Harvard University, 51 Brattle Street, Cambridge, MA 02138.

sophical writings had proposed two sorts of psychology. After him, the differentiating research programs and schools of psychology would begin to cluster into “hard” and “soft” psychologies whose distinctive characteristics would be reminiscent of the causal–purposive distinction. The hard psychologies would be established in laboratory-based experimental programs; the soft psychologies would be grounded in laboratory and nonlaboratory environments and slowly develop methods and methodologies distinct from those of the natural sciences.

## The Philosophical Tradition

For several hundred years, a stream of philosophical writings had sketched out two very different kinds of psychology. The philosophers of the Enlightenment aimed to set aside tradition, authority, and divine revelation and to be guided by reason in the analysis of nature and human affairs. In the 17th and 18th centuries, philosophers of the Enlightenment hoped that psychology might serve as the basis for the rational reconstruction of human society. Gay (1969) described their hopes in these terms:

Not content with making psychology into a science, the Enlightenment made it, among the sciences of man, into the strategic science. It was strategic in offering good, “scientific” grounds for the philosophes’ attack on religion; it was strategic in the broader sense of radiating out to other sciences of man, to educational, aesthetic, and political thought—“general psychology,” Dugald Stewart wrote, is “the center whence the thinker goes outward to the circumference of human knowledge”—and strategic, finally, because it was the groundwork, the empirical base, of the Enlightenment’s philosophical anthropology, its theory of man. (pp. 167–168)

Implicitly or explicitly, some set of psychological ideas must be drawn on to design any system of governance based on reason. Cofer (1986) has traced a long and intriguing history of speculative psychologies put forth in conjunction with political proposals. One writer after another characterized human nature by describing people’s faculties, sentiments, motives, powers, or instincts. On such characterologies and motivologies were built analyses of how political representation, governmental structures, criminal justice systems, schools, or social welfare arrangements might best be designed.

Moved by the successes of the natural sciences, Enlightenment writers projected the possibility of sciences of government. But the natural sciences, by the very nature of their enterprise, had to ask questions that brought forth the rudiments of a psychology of knowledge. How far, for example, can we trust what our senses tell us about the world? An epistemological psychology grew up to help disentangle the knower from the known and thus strengthen our vision of nature. This epistemological psychology would provide knowledge of our understanding of the objective world. Cassirer (1932/1952) argued that a psychology of knowledge was essential for the Enlightenment’s scientific program.

It is characteristic of eighteenth century thought that the problem of nature and the problem of knowledge are very closely con-

nected with, indeed inseparably linked to, one another. Thought cannot turn toward the world of external objects without at the same time reverting to itself; in the same act it attempts to ascertain the truth of nature and its own truth. (p. 93)

An epistemological psychology alone could not serve as Gay’s strategic science. An objective psychology could not provide a foundation for social, educational, and political planning. One needs a vision of humans in relation to the institutions of society. Nineteenth-century designers of the social sciences such as Auguste Comte and John Stuart Mill drew up systematizations that included strategic and epistemological psychologies related to one another.

### Auguste Comte’s *Morale*

Auguste Comte (1798–1857) outlined a positivistic politics from which he hoped that scientifically based social reform might proceed. The meaning of *positivism* for Comte corresponds roughly to our contemporary notion of *empirical* as opposed to *speculative* and should not be confused with the 20th-century movement to promote “logical positivism” as a philosophy of science (see Samelson, 1974; Wright, 1986). Between 1830 and 1842, Comte published a six-volume *Cours de Philosophie Positive*. All forms of human knowledge, he said, move through three stages, being first theological, then metaphysical, then positive. In the course of human history, each of the sciences—first mathematics, then astronomy, physics, chemistry, and biology—had in turn become positive, based on empirically verifiable laws. Now *social physics* had become sufficiently positive to become an instrument of scientific government.

At first, Comte gave no independent place to psychology in his scheme of the sciences. He said there are two irreducible classes of social-psychological phenomena: (a) biological, organic, or vital events, to be addressed by biology; and (b) sociological, collective, or societal happenings, to be dealt with by social physics (G. W. Allport, 1954, p. 8). Later, however, in his four-volume *System of Positive Polity* (1851–1854/1973), Comte argued for a tripartite social science: a sociology and a two-sided psychology. Specifically, Comte argued that sociologists should study the historical development of human collective thought, physiologists should study the functioning of the brain, and that a new class of moral scientists should study the individual in relation to the results of sociology and brain physiology (Thompson, 1975, p. 191). Comte himself characterized this new science of *morale* in these terms:

The science of [morale] differs from the two preceding sciences [biology and sociology] in that it brings them into close combination. Biology may be looked at as introducing the study of Human Existence through that of the vegetative and animal functions; whilst Sociology only teaches us to know man’s intellectual and moral qualities; for these can only be properly examined in their collective action. With this basis the true final science, that is [morale], is able to reduce to a system the special knowledge of man’s individual nature, by duly combining the two points of view, the Biologic, and the Sociologic, in which

that nature must be necessarily regarded. (Comte, 1851–1854/1973, vol. 2, p. 357)

In 1857, Comte announced that he would write a two-volume work on *La Morale* as his seventh and culminating science. He drew up a plan and shared it with several disciples, but the plan was never carried out because of his death. DeGrange (1923) reproduced Comte's plan for the first volume, to be titled *La Morale Theorique*, discussed the intellectual history by which Comte arrived at the plan, and estimated the position Comte would have set forth in the work.

### *John Stuart Mill's Science of Ethology*

As a young man, John Stuart Mill (1806–1873) corresponded with Comte and argued against the omission of psychology from Comte's first plan of the sciences (Heyd, 1989; Wilson, 1991). Writing a public review of Comte's position, Mill (1865/1969) said that this was a serious omission. Comte's failure to take psychology seriously as a mental science was not a "mere hiatus" in his system, but "the parent of serious errors in his attempt to create a Social Science" (Mill, 1865/1969, p. 298). When Comte decided later to include morale, Mill called it a "decided improvement." Mill applauded the addition "to the six fundamental sciences of his original scale, a seventh under the name of [morale], forming the highest step of the ladder, immediately after Sociology" (Mill, 1873, p. 169). Of course, by that time Mill had himself set forth a proposal for a second science of psychology not dissimilar to Comte's seventh science. Although the form of Mill's proposal differed from that of Comte, both attempted to recognize psychology as both objective and subjective or, in Münsterberg's terms, causal and purposive.

The sixth book of John Stuart Mill's *A System of Logic* was entitled *On the Logic of the Moral Sciences* (Mill, 1843/1974). In this book, Mill argued for a "science of character formation," *ethology* (not to be confused with the later study of animal behavior; see Jaynes, 1969), to be the science of human nature that an associationist psychology alone could not provide. Observations of everyday experiences give truths that are "not absolute, but dependent on some more general conditions." The observations can only be "relied on in so far as there is ground of assurance that those conditions are realized" (Mill, 1843/1974, p. 861). The empirical observations with which Mill was particularly concerned were observations of habits, dispositions, or conduct taken as the basis for judgments about character. Such judgments are approximate but they are, nonetheless, the "common wisdom of common life" (p. 864).

But, Mill (1843/1974) said, "when maxims of this sort, collected from Englishmen, come to be applied to Frenchmen, or when those collected from the present day are applied to past or future generations, they are apt to be at fault" (p. 864). Observations of human conduct reveal "not the principles of human nature, but results of those principles under the circumstances in which mankind have happened to be placed" (pp. 861–862).

We want to go beyond empirical regularities to causal laws transcending time, place, and circumstance. Our circumstantial knowledge needs to be supplemented by another sort of knowledge that, when combined with the former, may yield universal laws.

We need laws indicating how human nature is formed. Such laws may not be obtained by experiment. An experimental inquiry into character formation would have to be conducted by bringing up and educating a number of human beings from infancy to maturity. Only an "oriental despot" would have the power to conduct such an inquiry, and even an all-powerful and heartless ruler could not carry out the study with scientific propriety—controlling and recording every impression received by the young pupils. Neither will simple observation of human activities do. The laws of the formation of character must be arrived at deductively, Mill concluded, through the study of groups of people—French, English, men, women—amidst their differing circumstances.

The French people had, or were supposed to have, a certain national character: but they drive out their royal family and aristocracy, alter their institutions, pass through a series of extraordinary events for the greater part of a century, and at the end of that time their character is found to have undergone important changes. A long list of mental and moral differences are observed, or supposed, to exist between men and women: but at some future, and, it may be hoped, not distant period, equal freedom and an equally independent social position come to be possessed by both, and their differences of character are either removed or totally altered. (Mill, 1843/1974, pp. 867–868)

The results of Mill's proposed science of ethology would thus determine the kind of character produced by the operation of psychology's universal laws within any set of circumstances, physical or moral. As mechanics is foundational for engineering, ethology would be foundational for education,

in the widest sense of the term, including the formation of national or collective character as well as individual. . . . When the circumstances of an individual or of a nation are in any considerable degree under our control, we may, by our knowledge of tendencies, be enabled to shape those circumstances in a manner more favourable to the ends we desire. (pp. 869–870)

The principles of this new science would arise, Mill said, out of observations of the variations in human nature found among the diverse peoples and circumstances around the world. The great theoretical problem of ethology would be to connect its principles deductively to the general laws of psychology.

One of Mill's models for ethology might have been Alexis de Tocqueville's *Democracy in America*. Three years before he published the *Logic*, Mill (1840/1873) reviewed Tocqueville at length for the *Edinburgh Review*. Tocqueville's writings abound with judgments in which Americans' character is connected to their circumstances, and Mill quoted a good number of them, such as: "in the United States, the more opulent citizens take great care

not stand aloof from the people; on the contrary . . . the rich, in democracies, always stand in need of the poor" (p. 127). Tocqueville's work impressed Mill as "it demonstrated what he had long believed, that human nature was as much subject to general laws as physical nature; that they could with patience be identified, and the inferences from them safely used as a means of prediction" (Packe, 1954, p. 202). Mill saw Tocqueville's methods as a model for ethology. Tocqueville provided Mill with an example of the kind of characterological analysis that could be done in relation to a designed social environment—democracy.

The value of his work is less in the conclusions than in the mode of arriving at them. He has applied, to the greatest question in the art and science of government, those principles, and methods of philosophizing, to which mankind are indebted for all the advances made by modern times in the other branches of the study of nature. It is not risking too much to affirm of these volumes, that they contain the first analytical inquiry into the influence of Democracy. (Mill, 1840/1873, p. 83)

In these and other statements Mill made clear the need for a second psychology—a psychology that would relate to the findings of the first, experimental psychology and account for the psychological consequences of different circumstances.

The subsequent impact of Mill on psychology was little in a direct sense, and the shortcomings of his proposal were many (cf. Leary, 1982). Mill's *Logic* was a best-seller and went through eight editions, but through all of Mill's revisions he left the chapter on ethology unchanged and undeveloped. In the short run Mill's proposal did not go very far. Bain (1861) and Shand (1896, 1914) wrote on character and are said to have been influenced by Mill's proposals to study character in relation to circumstance. In 1899, Thomas P. Bailey, Jr., "Associate Professor of Education as Related to Character" at Berkeley, published several articles on ethology (Bailey, 1899a, 1899b, 1899c). An Ethological Society was founded by Dr. Bertrand Hollander in London in 1904. Some themes running through addresses read before the society include self-help, misbehavior and psychopathology, and national character. An *Ethological Journal* began in 1905 and published 14 volumes before its demise in 1929. However, a psychology of character awaited the development of a fuller psychology—a psychology that could, among other things, account for the irrational as well as the rational in human conduct. Allport himself made the incisive remark that Mill's proposal was limited by the neglect of the irrational as a force in human nature.

Psychology in Mill's time was intellectualistic, Apollonian, and not until the influence of Schopenhauer, Darwin, Freud, and McDougall had altered its point of view radically, training its vision upon the irrational motives of men, were the premises sufficiently complete to permit a realization of Mill's proposal. (G. W. Allport, 1937, p. 89)

Finding an institutional home in psychology for considering the irrational and unconscious in human life required settings that differed from those established in ac-

ademic psychology. The creation of those settings and the working out of relationships between psychological knowledge gathered in the new and the older settings was an important part of the working out of the second psychology.

### *Völkerpsychologie: Wundt and the Two Psychologies*

By the second half of the 19th century, there were German attempts as well to build a psychology of culture and circumstance from earlier philosophies of culture and history. In 1860, Moritz Lazarus and Heymann Steinthal, two philologists, founded their journal, *Zeitschrift für Völkerpsychologie und Sprachwissenschaft*, dedicated to the study of the mentalities of diverse human societies and the relationships of those mentalities to language. *Völkerpsychologie* would be an interdisciplinary effort embracing psychology, anthropology, history, and philology. Its task was twofold: (a) to arrive at general laws governing the study of humankind as a whole and the development of the human spirit (*Geist*); and (b) to study the specific characters of the various *Völker* that constitute humankind and the factors that produce particular manifestations of the general laws among people in different historical circumstances (Krewer & Jahoda, 1990). In general, language and mythology constituted the "main roads to tracking the intellectual development of the 'Volksgeist.'" (Krewer & Jahoda, 1990, p. 5).

These authors wrote little on method. Wilhelm Wundt (1832–1920) wrote in 1881 a "scathing critique" of Lazarus and Steinthal that "signalled the demise of the original version of *Völkerpsychologie*." (Krewer & Jahoda, 1990, p. 11). It would be several years, however, before Wundt would offer his own version of *Völkerpsychologie*. Krewer and Jahoda concluded their analysis by writing that "Lazarus and Steinthal had a grand vision about uniformities in the development of the human spirit and its particular manifestations within the Volk or national community that largely shape its psychology. It was a powerful idea but one that was, and remains, difficult to research effectively" (p. 10).

In the 1860s, Wundt began writing about *Völkerpsychologie*—the lawful development, through cultural participation, of the higher human mental processes. Wundt saw his second psychology as an essential complement to his experimental psychology and this vision would ultimately lead him, in the early 1900s, to the writing of a 10-volume survey of ethnographic data about the language, myth, and customs of diverse human cultures. Wundt argued that Lazarus and Steinthal's approach was far too wide-ranging, and he proposed to replace the notion of *Volksgeist* with that of *Volksseele* (mind of the folk). In parallel to the constituents of individual consciousness (imagination, feeling, and will), Wundt considered language, myth, and custom in their interrelationships as the fundamental constituents of the *Volksseele* (Krewer & Jahoda, 1990, p. 11; Wundt, 1916). Jahoda (1989) has written a rich review of the intellectual traditions leading up to these proposals, pointing out that the proposals are ancestral to the rising tide of contem-

porary interest in cultural psychology. "Summing up," Jahoda said, "the proponents of *Völkerpsychologie* had some important new ideas about cultural influences on psychological processes. However, they remained locked in abstract discussion, lacking the means to carry out relevant empirical studies" (p. 13).

In the short term, proposals for a *Völkerpsychologie* waxed and waned in popularity, falling away for pretty much the same reason that Comte's proposed morale and Mill's proposed ethology fell away. Nonetheless, in considering the role of language, myth, and custom in human conduct, Wundt went some distance toward specifying the dimensions of circumstance and thus the dimensions of the second psychology. One of Wundt's students, G. Stanley Hall (1904), included in his two-volume *Adolescence* much data on literature, laws, customs, and institutions—for example, chapters on "Adolescence in Literature, Biography, and History"; "Savage Pubic Initiations, Classical Ideals and Customs, and Church Confirmation"; "Adolescent Psychology of Conversion"; and "Social Instincts and Institutions."

### **American Proposals**

One defense of philosophy in the latter half of the 19th century was the argument that philosophy offered a humane account of the human being to balance the atomistic account arising from scientific psychology. A proponent of this position was John Bascom—G. Stanley Hall's (1923) favorite professor at Williams College, who went on to be president of the University of Wisconsin. In his *Principles of Psychology*, Bascom (1869) argued that philosophy should take a "top-down" approach to humans, asserting their dignity and acting as a balance to the view of humankind that derives from natural science.

Approaching man from below, we interpret him from the types of power we find in nature, we limit his liberty or rob him of it, we expound his moral nature by the law of utility, so obtrusive in the acquisition of physical good; while we seem to find the germ of his intellectual constitution in brute instincts, perception, associations. We are thus as those who contemplate in a statue more the pedestal on which it rests, the marble of which it is made, the measurements to which it conforms, than the living, spiritual power it expresses. . . . We claim that the knowledge that centres directly in mind, in its moral and intellectual powers, and in the social, civil, and religious actions that arise immediately from them, is a full half of all knowledge; and that the methods of reasoning employed in these departments, while very different from the naked inductions of science, constitute the nobler moiety of intellectual life. (Bascom, 1869, pp. 3–5)

James Mark Baldwin believed that only some few psychological questions could adequately be addressed by means of laboratory experimentation. As his interests turned more toward questions of development, Baldwin (1930) wrote that "I began to feel that there was some truth in what James was already proclaiming as to the barrenness of the tables and curves coming from many laboratories" (p. 4). The problems of development, apart from elementary problems of sensation and perception, demanded new methods.

The quantitative method, brought over into psychology from the exact sciences . . . must be discarded; for its ideal consisted in reducing the more complex to the more simple, the whole to its parts, the later-evolved to the earlier-existent, thus denying or eliminating just the factor which constituted or revealed what was truly genetic. (pp. 7–8)

John Dewey also rejected the importation of methods from the natural sciences for all of psychology.

On the one hand our problem is to know the modifications wrought in the native constitution of man by the fact that the elements of his endowment operate in this or that social medium; on the other hand, we want to know how control of the environment may be better secured by means of the operation of this or that native capacity. Under these general heads are summed up the infinity of special and difficult problems relating to education on the one hand and to constructive modification of our social institutions on the other. (Dewey, 1917, p. 56)

Dewey pressed philosophers to turn away from the classic problems of philosophy (Dewey, 1920) and urged psychologists to realize a strategic psychology based on design. Dewey further realized the centrality of value in a science of human affairs. He saw the proper role of philosophy—and its descendants in the social and behavioral sciences—as a mediator in a perpetual process of reconstructing changing human experience and social practices in light of changing values (Cahan, in press). The social sciences, unlike the physical sciences, must incorporate change into their science.

It would require a technical survey . . . to prove that the existing limitations of "social science" are due mainly to unreasoning devotion to physical science as a model, and to a misconception of physical science at that. Without making any such survey, attention may be directly called to one outstanding difference between physical and social facts. The ideal of the knowledge dealing with the former is the elimination of all factors dependent upon distinctively human response. "Fact," physically speaking, is the ultimate residue after human purposes, desires, emotions, and ideas and ideals have been systematically excluded. A social "fact," on the other hand, is a concretion in external form of precisely these human factors. (Dewey, 1931/1985, p. 64)

Meanwhile, in formally establishing a disciplinary psychology, most American psychologists honored and followed Wundt's experimental psychology but paid little attention to his second psychology (Blumenthal, 1975, 1980, 1985; Danziger, 1990). Lacking methods appropriate for the kinds of study envisioned, 19th-century proposals to understand people in relation to circumstances took a back seat as a first American psychology centering on laboratory work emerged. For a relatively short time, the dominant psychology was a set of spin-offs from 19th-century laboratories of biology, physics, and astronomy. Wundt had harvested psychological research procedures developed by 19th-century scientific laboratories, had put the methods together in six rooms at Leipzig, and had woven around them the intellectual framework of a programmatic experimental psychology (Boring, 1950).

## Realization of the Second Psychology

Near the turn of this century, a disciplinary psychology appeared in American universities as part of a broad social reorganization that included the rise of the research university (Veysey, 1965), the establishment of many disciplines and professions (Bledstein, 1976), the growth of large corporate structures (Chandler, 1977), and the emergence of a new class of people who could make this larger and more complex social system work (Wiebe, 1967). Although experimental psychology was at first the politically dominant form of psychology, American society repeatedly brought psychologists into consultation on pressing questions of social design. New social institutions created demands for new psychological knowledge, ideas, and methods (White, 1978). Psychologists provided practical assistance to schools, child guidance and other mental health clinics, courts, factories, and other social welfare organizations. Fragments of psychological knowledge from both within and without academic psychology were rather quickly picked up and applied to individuals and groups in different circumstances. In reaching toward applications Americans reached toward a fuller realization of the second psychology. But this work was scattered, heterogeneous, and speculative. The first organized cooperative research enterprise—and, for a time, control of psychology—was in the hands of the proprietors of the brass-instruments laboratories. The story of American psychology in the 1900s is, in substantial part, the story of long, slow efforts to find methods appropriate for a second psychology and to find a place for it beside an early-maturing experimental psychology.

### *Emergence of a Pluralistic American Psychology*

The brass-instruments laboratory established scientific psychology in the university. It was concrete. One could show it to college presidents, colleagues, and students who might or might not agree that such a laboratory would be the be-all and end-all of a science of the human mind. There was sufficient agreement to support the development of laboratories of psychology in the philosophy departments of a number of American universities. Dissenters, notably William James, James Mark Baldwin, George Herbert Mead, and John Dewey, talked about the possibility and necessity of nonexperimental psychology, but they were in a politically weak position. Experimental psychologists wrote research papers; the dissenters wrote about possibilities. Experimental psychologists subscribed to well-known and revered principles of natural science. The dissenters wrote vaguely about the need to broaden conceptions of what science should be and do. Experimental psychologists stood on safer ground politically and religiously. They aspired to be technicians addressing themselves to facts, not values. The dissenters wanted to bring into psychology topics in social, political, and moral philosophy. The experimentalists held the political and epistemological high ground at first, but as the work of those interested in development, personality, psychopathology, and social life matured, a pluralistic psychology became more and more apparent.

American psychology was never monolithic, never confined to one scientific approach (Wilson, 1990). Early textbooks (Dewey, 1887/1967; James, 1890) pictured a psychology resting on several research methods, and studies of the early journals demonstrate the heterogeneity the textbooks described (Danziger, 1985, 1987, 1988; Reynolds & White, 1990). As psychology grew larger, the pluralism of members' interests hardened into a politics of the subdisciplines. Titchener withdrew from the swarming American psychologies into what Boring (1961, p. 260) characterized as "a life of academic retirement" in 1912. Münsterberg, as noted above, recognized the pluralism around him and tried to map it and rationalize it in his 1915 textbook.

Psychology's differentiation was clear by the late 1920s and four American books catalogued its schools (Heidbreder, 1933; Murchison, 1926, 1930; Woodworth, 1931). How serious was this apparent breaking apart of psychology? American psychologists were relaxed about their differences: "In many ways, American psychologists of the 1920s formed a small, fairly tight knit community whose members were usually quite friendly with each other, whatever systematic disagreements they might have had" (Sokal, 1984, p. 275). Hilgard (1988) described the differentiation into schools and systems as a transitory phenomenon of psychology's early years. Europeans, possibly more sensitive to matters of ideology, wrote about crisis or chaos in psychology (Bühler, 1929; Driesch, 1925; McDougall, 1930; Vygotsky, 1925–1927, cited in Kozulin, 1990).

Woodworth's (1931) *Contemporary Schools of Psychology* was the only one of the early surveys of the "schools" that went into later editions. In the editions of 1948 and 1964 two clusters of schools emerged. The "Behaviorism" of the first edition differentiated into 5 programs, whereas the "Purposeful-hormic" and "Psychoanalysis" schools differentiated into 10. The pluralism would harden into two clusters of activity—on the one side an experimental psychology oriented to the use of learning and conditioning laboratories and learning theories as platforms for what some hoped might be a unification of American psychology, and on the other a broadening body of inquiries into personality, developmental, and social psychologies. Perhaps the earlier pluralism was more meaningful than American commentators have suggested but less paralyzing than the notion of crisis suggests. Psychology has always been multiparadigmatic and there are probably fundamental reasons why it ought to be so (cf. White, 1976, 1977, 1986). One of the critical problems for psychology, in every period of its existence, has been the management of this basic and useful pluralism.

### *Vygotsky's Proposals for a Second Psychology*

In a recent biography, Kozulin (1990) pointed out that L. S. Vygotsky's (1896–1934) psychology was predicated on his recognition of psychology's "crisis"; the research program Vygotsky and his associates established in Moscow was fundamentally an effort to resolve it. Vygotsky's

critique of Piaget's early work, for example, said that it reflected psychology's crisis:

For all its greatness, Piaget's work bears the stigmata of crisis characteristic of all modern psychology. In this respect, Piaget's theory shares the fate of such theories as those of Sigmund Freud, Charles Blondel, and Lucien Levy-Bruhl. All of them are the offsprings of the crisis in psychology. . . . The historical development of psychology has led to a situation in which, to repeat the words of Franz Brentano, there are many psychologies, but there is no one, unified psychology. (Vygotsky, 1934/1986, p. 13)

Vygotsky ultimately concluded that the multiplicity of psychologies fell into two scientific families: one a natural-scientific explanatory psychology and the other a descriptive, philosophical-phenomenological psychology. Vygotsky was influenced by Münsterberg's prior dichotomization of psychology and he recognized also that something like Münsterberg's dichotomy had been expressed in earlier contrasts between nomothetic versus idiographic, natural versus historical, or causal versus intentional knowledge in writings of Windelband, Rickert, and Dilthey (Kozulin, 1990, p. 98).

Vygotsky and his associates had 10 years to begin to elaborate a psychology of the higher mental processes. Such a psychology, they felt, could be built by (a) addressing human activity and analyzing it at various levels of control; (b) studying goals, goal-directedness, and goal formation; (c) considering the mediations of human activity that arise through the use of tools and sign systems; (d) examining development rather than "fossilized behavior"; (e) observing the person in society and movements from the interpsychological to the intrapsychological; and (f) seeking to understand internalization (Vygotsky, 1978; Wertsch, 1981). This attempt to design an empiricism for the study of the higher human mental processes was a brilliant, creative effort. Unhappily, Vygotsky's death in 1934, closely followed by severe Soviet political attacks on psychology in the late 1930s, brought most of the program into dormancy. "Born again" in the last quarter of the 20th century, Vygotsky's program would begin to have a large influence on American developmental psychology and would initiate a contemporary movement toward cultural psychology (Cole, 1990; Jahoda, 1989).

### Programs for a Unified Scientific Psychology

During the era between 1930 and 1960, Koch's "Age of Theory," some hoped that psychology might be given a solid scientific footing and ultimately unified through the elaboration of behavior theory (Koch, 1976, 1985). The writings of John B. Watson and B. F. Skinner are sometimes taken to be statements of the behaviorism that dominated American experimental psychology for much of the first half of the 20th century. Watson early, and Skinner later, preached a radical and flamboyant behaviorism with utopian overtones. But most psychologists of the 1930s shied away from the strong ideologies of Watson and Skinner, subscribing to a tamer *methodological be-*

*haviorism* (Spence, 1948)—a programmatic effort to use laboratory studies of conditioning and learning as a foundation for a solid, sovereign, and unified science of psychology. This was a period when many subscribed to the doctrines of a prescriptive philosophy of science, when books describing narrow lines of research were given large and ambitious titles—*Purposive Behavior in Animals and Men* (Tolman, 1932), *Principles of Behavior* (Hull, 1943), *The Behavior of Organisms* (Skinner, 1938). What inspired the movement was a faith once stated by Tolman (1938/1958):

Let me close, now, with a final confession of faith. I believe that everything important in psychology (except perhaps such matters as the building up of a superego, that is everything save such matters as involve society and words) can be investigated in essence through the continued experimental and theoretical analysis of the determiners of rat behavior at a choice point in a maze. Herein I believe I agree with Professor Hull and also with Professor Thorndike. (p. 172)

Not all experimental psychologists shared Tolman's faith but many did, some even going beyond him in that they refused to allow for his carefully formulated exceptions. In the politics of psychology departments, older researchers on sensation and perception formed a coalition with younger psychologists of conditioning and learning. Together they held the norms of the departments close to the values, standards, and procedures of the natural sciences. The contents of S. S. Stevens's (1951) *Handbook of Experimental Psychology* give an excellent picture of the domain of experimental psychology as defined by the coalition. Behaviorism was only one element of the new methodology of the 1930s. A second element was a commitment to treatment-group comparisons, a third was statistical.

### Other Methodological and Statistical Commitments

Danziger (1990) has analyzed the contents of leading American journals of experimental psychology (the *American Journal of Psychology*, the *Psychological Monographs*, and the *Journal of Experimental Psychology*) in 1895, 1910, 1924, and 1935. Over this period, the experimental journals showed a steady increase in articles using a treatment-group approach: dealing with group data interpreted using a sampling philosophy.

In the first half of the twentieth century the investigative practice of American psychology came to rely increasingly on the construction of "collective subjects" for the generation of its knowledge products. . . . Three types of these artificial collectivities were distinguished: those that were the result of averaging the performance of individuals subjected to similar experimental conditions, those that were constituted from scores obtained by means of some psychometric testing instrument, and those that were produced by subjecting groups of individuals to different treatment conditions. (p. 113)

Statistical inference was essential to comparing treatment groups. Rucci & Tweney (1980) examined 6,457 articles appearing in major psychological journals between 1935 and 1952 and found that analysis of vari-

ance first appeared in the journals in the late 1930s and rose rapidly to become the most frequent framework for the analysis of data by 1952. The demand for a credible standard of induction was considerable. Gigerenzer (Gigerenzer, 1987; Gigerenzer et al., 1989) has argued that the inferential statistics psychologists turned to was an awkward compromise between Fisherian and Neyman-Pearson approaches. In his recent review of the second of Gigerenzer's publications, Loftus (1991) discussed the limitations of the hypothesis-testing approach to research that was laid down by this standard.

Behavior theory, experimental psychology, and inferential statistics were brought together to form a new image of scientific psychology. Justifications and a vision of what might be achieved were offered in writings of philosophers and psychologists who tried to design a framework for psychology based on analyses of the "more mature" physical sciences; a good sampling of such writings can be found in Marx (1951). The scientific footing of the new psychology would stand in animal and human laboratories of conditioning and learning, and in laboratories of sensation and perception. Experimental psychologies dealing with children, personality, psychopathology, and social behavior extended what it was hoped would be a uniform methodology applicable to all kinds of psychological inquiries.

### **Rise of the Later Maturing Psychologies**

The new methodological canons of the coalition could not command the convictions and loyalties of all psychologists. An opposition movement grew in the 1920s and 1930s as activities at the "margins" produced a slow, steady growth of research programs in developmental, personality, social, and various forms of consulting and clinical psychology. People interested in the larger patterns and purposes of human activity invented methods for examining them and put forth findings and ideas. The child development institutes in the United States, Jean Piaget in Geneva, Heinz Werner in Hamburg, and L. S. Vygotsky in Moscow were nuclear forces in establishing developmental psychology. Gordon Allport, Henry Murray, and Gardner Murphy sought to crystallize inquiries into personality psychology. Floyd Allport (1924) brought in some social psychology from sociology; later social psychologists—particularly the extraordinarily creative research groups of Kurt Lewin (DeRivera, 1976; Patnoe, 1988; Stivers & Wheelan, 1986)—enlarged its scope and vitality. Mid-century handbooks and manuals give some indication of the enormous growth of psychology's programmatic work in developmental psychology (Carmichael, 1946; Murchison, 1931), personality psychology (Hunt, 1944), and social psychology (Lindzey, 1956; Lindzey & Aronson, 1963).

Theories flowed from this work (C. S. Hall & Lindzey, 1957). They did not have the hard-edged quality called for by the traditional philosophy of science, and some called them premature. But American experimental psychologists were themselves being told they were an "immature physics." Psychology, mature or not, was

being used in American society. Educational, clinical, counseling, industrial, and military psychologies proliferated (Napoli, 1981). The practical work could be discounted as "applied," meaning derivative and secondary. But more and more psychologists argued that problem-centered work in everyday settings might be fully as "basic"—in the sense of fundamental knowledge about human psychological capacities—as work in the staged human encounters in the university.

What all this meant was that there was an enlarging body of research work that did not fit comfortably with experimental methodology and in one way or another constantly challenged it. Forms of psychological analysis that had been philosophical and speculative near the turn of the century now began to be aligned with research programs; an excellent example of this is to be found in the transition from the genetic psychology of James Mark Baldwin to that of Jean Piaget (Cahan, 1984). A productive synergy between theory and research (White, 1977) now began to exist in not one but a number of subdisciplines of psychology.

Constitutional questions became steadily more difficult for the diversifying body of American psychologists. What science, if any, united them all? Experimental psychologists were initially dominant in the psychology departments. Most psychologists acquiesced to the standards of "good science" solidified in the 1930s and 1940s. In subsequent years, during the great growth of American psychology after World War II, these standards of good science were built into the norms of departments, journals, and grant-giving institutions. In time, however, there came to be a search for conceptions and institutional forms appropriate for the later maturing spectrum of psychologists' activities.

### ***Institutional Experiments***

Some institutions in American society recognized the increasing societal use of psychology and other social sciences and sought to stimulate their growth. Between 1922 and 1929, the Laura Spelman Rockefeller Memorial appropriated about \$41 million to American social science, social work, and their institutions (Cahan, 1991; Ross, 1991). The memorial fund supported interdisciplinary, problem-centered work in the social sciences. The memorial's director, Beardsley Ruml, insisted that the memorial's interest in the social sciences "would be in no sense an academic interest" in the advancement of theory. Rather, "it would be a practical interest in the welfare of individual men, women, and children . . . with a recognition that the knowledge which the social sciences can give is an essential and at the present time inadequately developed means for the achievement of its purposes" (Spelman Fund, n.d.).

With philanthropic support, interdisciplinary programs were established at specific universities—perhaps most conspicuously at Yale and Harvard. The Institute of Human Relations at Yale, the Department of Social Relations at Harvard, and similar experiments at other universities all explored the possibility that there might

be, within faculties of arts and sciences, new departmental and cross-disciplinary possibilities that would align work in psychology with allied professions.

### ***The Institute of Human Relations at Yale***

The Institute of Human Relations (IHR) was founded at Yale University in 1929 as an interdisciplinary experiment in cooperative research. Morawski (1986) suggested that "organized and cooperative research was an initial answer to the inherent irrationality of the individual mind as well as to psychology's problem of a house divided against itself" (p. 225). The architects of this experiment came not from the disciplinary centers but from their professional neighbors.

Deans Milton C. Winternitz of the Medical School and Robert Maynard Hutchins of the Law School sought to integrate their professions with the social sciences. Under their leadership, the IHR was to combine different facets of the study of humans at Yale and provide the institutional setting for the behavioral and social sciences along with the professional schools of medicine, law, divinity, and nursing. Their aim was no less than to investigate "problems of human welfare and to develop a unified science of individual and social behavior as a foundation for the more effective training of physicians, lawyers, ministers, nurses, teachers, and research workers" (Mark A. May, cited in Geiger, 1986, p. 156). Most of the funds, however were committed to established disciplinary programs of research in psychology, psychiatry, child development, and primatology. There was, in retrospect, little convergence, "or even coherence, in the welter of activities" (Geiger, 1986, p. 156). Efforts were made later to bring more coherence to the institute. Linguist Edward Sapir joined the faculty in 1931 and presented a case for personality and culture studies. Serious efforts were made to reconcile psychoanalysis with learning theory (Dollard, 1963). These interdisciplinary efforts enjoyed only limited and short-term success in the disciplinary structure of the university.

### ***The Department of Social Relations at Harvard***

In 1934, Edwin G. Boring finally achieved what he had worked so long and hard at—the creation at Harvard University of a Department of Psychology independent from philosophy. Clinical psychology had been present at Harvard since 1926 when Henry Murray was recruited to assist Morton Prince at the newly formed psychological clinic. The clinic was a gift from Prince with the stipulation that it be affiliated with Harvard College and not the Medical School. Hence, the clinic was affiliated with the Department of Psychology. In 1940, Murray described the schism between the experimentalists and the clinicians in the Department of Psychology:

Almost everyone was nailed down to some piece of apparatus, measuring a small segment of the nervous system as if it were isolated from the entrails. . . . The phenomena that intrigued me were not mentioned, since these were not susceptible to exact experimental validation, . . . a consuming interest in . . . problems of motivation and emotion. To try to work these out

on human subjects was to become a "literary" or applied psychologist, a practitioner of mental hygiene, outside and looking in upon the real psychologists. (Murray, 1940, p. 154)

In May 1945, a group was appointed under the leadership of Alan Gregg from the Rockefeller Foundation to review and advise on the future of psychology at Harvard University. The group defined psychology broadly as "the science of human and animal behavior, both individual and social. . . psychology is the systematic study, by any and all applicable and fruitful methods, of organisms in relation to their behavior, environmental relations, and experience" (Harvard University, 1947, p. 2). With sympathy for the young faculty who broke away from philosophy in the early 1930s, the group cautioned against the domination of the Department of Psychology by the experimentalists:

those experimentalists who participated in the march away from speculative mental philosophy and religion, show an understandably violent aversion to speculation. They resolutely prefer to devote their attention and strength to raising the standards of methodology. This they have done and done well, but now the very occasion in which new hypotheses and explorations would prove most valuable may be missed in the fervor of the recent converts to method. (Harvard University, 1947, p. 3)

The group recognized how both world wars underscored the utility of applied psychology. In a term reminiscent of Münsterberg's psychotechnical sciences, the group urged Harvard to pay more heed to *psychotechnology* and chastised the Harvard department for turning away from the practical problems of everyday life.

Indeed, one can scarcely escape the impression that the Department of Psychology in the Faculty of Arts and Sciences presents a contrast to the work in psychology in any of the other faculties in that it often eschews problems deriving from actual practice and is more concerned with theory, with basic science, with statements of physiological law, with experiment more than experience, with erudition protected by deliberate separation from the confusing and pressing problems of real situations. (Harvard University, 1947, pp. 21–22)

The commission further indicated that "all the evidence indicates that [psychology] is young, growing, extending especially in the direction of social psychology and tending toward applied or clinical forms" (Harvard University, 1947, p. 41). In a caution against fissioning the department, the group concluded that

We do not regard the separation of clinical and social psychology from the rest of psychology, or a concentration in certain directions, as a gain in unity for the field as a whole. We believe that arrangements which encourage the exclusive domination of psychology by the laboratory would sacrifice the unity of the subject, belie its freedom, and limits its opportunity. (p. 41)

It was too late. Allport had already written in March 1944 to Boring that his "garden patch" could not grow in the "straitjacket" of a department dominated by the experimentalists Stevens and Lashley (quoted in Moore, 1978, p. 10). Contrary to the committee's recommen-

dations, psychology at Harvard split into two departments: a Psychology Department for the experimentalists and a Social Relations Department for clinical, personality, social psychology, and social anthropology. The split symbolized and institutionalized the apparent conflict between Münsterberg's two psychologies. Once again a prescient Gordon Allport remarked on these innovations and related them to earlier efforts.

In recent years, new concepts have appeared on the horizon: Social Relations, Human Development, Behavioral Sciences, Human Relations. Each of these labels, it seems, tries to express an integration of the biological, the social, and the psychological approaches. Thus in a sense each seems to attempt a translation of Comte's untranslatable term *la morale*. (G. W. Allport, 1954, p. 9)

### **Rise of the Institutes and Centers**

Other attempts to establish the second psychology occurred outside the disciplinary structure of academic psychology. In the years immediately following World War II, several psychological research organizations were established apart from universities. Parts of the second psychology established itself in these interdisciplinary, problem-centered institutes. In 1984, McKeachie and Brim estimated that there were currently between 400 and 500 such institutes. Typically, such institutes are allied with, but independent of, any single university or discipline. Collectively, through a special set of arrangements, these institutes have managed to "bridge the gap between basic research and the practical problems for which society needed answers" (McKeachie & Brim, 1984, p. 1254).

The second psychology tried to materialize within the disciplinary structure of universities but the allied disciplines were already too highly structured. Perhaps we take for granted the establishment of psychological research in university settings. There is a real possibility that certain kinds of psychological inquiries are best, or only, conducted in nonuniversity settings—because the time commitments required of the investigation are inconvenient in a university setting, because certain kinds of subject participation and cooperation can only be elicited in an applied situation, because politically speaking the investigator must have a foot in the institutional setting he or she seeks to investigate, and because certain kinds of research are best pursued in transitory, problem-centered research organizations.

During the past 30 years, there has been a great growth in professionally oriented applied psychologies—psychologies of design that, on the one side, help the agencies and institutions of a complex bureaucratic society to consider and organize their services and, on the other, help individuals who must live and grow in this complexity to reflect on and better design the circumstances of their lives. It is possible that this growth of psychology as a contemporary science of design serving in multiple institutional settings is in substantial part a realization of 19th-century projections of a second psychology.

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