Psychology: The Core Discipline

Raymond D. Fowler   *University of Tennessee*

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

Giving a presidential address for the American Psychological Association (APA) is not a responsibility that I take lightly nor, I suppose, have any of my predecessors. Being 96th in the progression of APA presidents is more intimidating than reassuring, but it does include the benefit of being able to look to one's seniors for guidance and inspiration. As I considered what I wanted to say today, I found it very helpful to read what other presidents have said and to review the progress and the problems of our Association and our discipline through their eyes.

APA presidential addresses have been of two major types. Most presidents have used the occasion to summarize their own substantive contributions or to describe recent developments in a particular subarea of psychology. Other presidents, particularly during times of conflict and change within the Association, have examined the structure of our discipline and how psychologists relate to each other and to the larger society. Because we are certainly in one of those recurring seasons of discontent, those presidential addresses are the ones that I found most instructive and that I kept returning to as I prepared to give my own.

Three of the early presidents, who served during a period when the discipline was trying to define itself and its mission, gave presidential addresses that expressed their vision of how psychology might develop in future years.

Granville Stanley Hall, who had brought together the founding group of APA a few months earlier, was elected president at the first APA convention in Philadelphia in December 1892. Soon afterwards, President Hall (in Woodworth, 1943, p. 18) said that psychology "is showing itself . . . to be the long hoped for, long delayed science of man, to which all other sciences are bringing their ripest and best thoughts, [and] is introducing a period that will be known hereafter as the psychological era of scientific thought." Brave words indeed for the president of an association with only 31 members.

George Ladd, our second president, gave a presidential address that he called a "cheering reminder that this Association should enter upon its career with a sufficiently generous estimate of its privileges and its responsibility" (in Hilgard, 1978, p. 21). Always on the lookout for cheering reminders, I read it with interest. Ladd described the rapidly developing science of psychology and then went on to present a remarkable projection of the future professional role of psychology in education, medicine, mental health, law, and child rearing.

Our eighth president, John Dewey, was the first president to focus on the relationship of psychology to society. In his presidential address entitled "Psychology and Social Practice," he examined ethical issues in the application of psychology. Even so great a mind as Dewey's recognized that there are limitations in what one can hope to accomplish in a presidential address. He began: "In coming before you I had hoped to deal with the problem of the relation of psychology to the social sciences—and through them to social practice, to life itself. . . . That discussion is not ready today" (in Hilgard, 1978, p. 65).

So, even in the first decade of our existence as a discipline and as an association, our presidents had foreseen that psychology would be a science and a profession while contributing to the public good.

Our early presidents were enthusiastic and visionary about the prospects for the new discipline. Subsequent presidents, who have had ample opportunities to see the problems of our discipline and our Association, have also been notably optimistic about our prospects. I will return frequently to what these distinguished psychologists have said about psychology in an effort to recapture some of their hope and enthusiasm for our collective futures.

A theme that has been prominent in the speeches of our presidents is the potential impact that psychology as a discipline could have on society. Our fourth president, James McKeen Cattell (1937), once noted in a "backward" glance written some years after his presidency, "It is possible that the development of psychology as a science and its application to the control of human conduct—individual and collective—may in the course of the coming century be as significant for civilization as has been the industrial revolution" (p. 1). Speaking more recently, George Miller, our 77th president, once noted that if the stated goals of scientific psychology were to be realized, the social and personal implications would far outrun the implications of atomic energy or recombinant DNA.

It is in that spirit that I have used the term *core discipline* as a metaphor to express the significance of psychology as a field of knowledge and the important destiny it has to fulfill. We have a large responsibility, as temporary custodians of the discipline, to promote and integrate the science and practice of psychology for the benefit of society.

Copyright 1990 by the American Psychological Association, Inc. 0003-066X/90/$00.75
Vol. 45, No. 1, 1–6

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

The term *discipline* is used in the academic world to refer to the knowledge and information base of a broad field of study and instruction. The discipline of psychology includes both its science and its applications. A *core discipline* is one that provides a basic core of knowledge that is used by other disciplines. That is, a core discipline contains concepts and content that are basic to the effective functioning of other disciplines.

For example, mathematics may be regarded as a core discipline for the physical sciences. Most physical scientists take courses in mathematics and use mathematics in conceptualizing and solving their problems. Mathematics provides a common language across the sciences.

The science of psychology, because it deals with the fundamental understanding of behavior, serves as a core discipline for other social sciences concerned with human behavior. Psychological terms, concepts, and methodology are common across the social sciences. Most of the professions that deal with problems of living draw heavily on both the knowledge base of scientific psychology and the technology of professional psychology.

Another reason that I characterize psychology as a core discipline is that it deals with problems and issues that are essential and fundamental. I believe that the failure to understand human behavior is at the core of most of the world's most serious problems. As George Miller (1969) said in his presidential address, "The most urgent problems of our world today are the problems we have made for ourselves. . . . They are human problems whose solutions will require us to change our behavior and our social institutions" (p. 1063).

When we look at society's problems, we often focus on peripheral or technological issues. Automobile accidents are seen as a result of poor highway design, and low industrial productivity is viewed as the result of inadequate or poorly designed machinery. As the technological problems are solved, the residual problems—the core problems—are usually found to be problems of human behavior. Automobile accidents occur mostly as a result of human error—irresponsible driving, intoxication, and the like, and a major factor in low industrial productivity is improper use of human resources—inadequate training, management, and incentives. Compared with the technological and mechanical matters, the human problems are much more difficult to overcome. They are the core problems, and it is these that psychology addresses.

If you doubt that the core problems of our world relate to human behavior, think for a minute about the problems that most endanger our species. Overpopulation, which dooms increasingly large portions of our world to poverty, misery, and starvation, is most certainly caused by human behavior. And overpopulation is only one of many such problems. Our decisions with respect to energy policy and land development are resulting in the gradual destruction of our tropical rainforests, our wetlands, and much of our arable land while simultaneously threatening our oceans, our freshwater supplies, our air, and the ozone layer that protects our planet. The decisions made by a few powerful government leaders could determine whether there will be any human beings to inhabit our world.

At a more personal level, we know now that 7 of the 10 major causes of death in the United States are primarily behavioral, not medical or physical, in nature. Our behavior contributes to heart disease, alcoholism, drug addiction, homicide, suicide, automobile accidents, many forms of cancer, and a host of other self-inflicted forms of torture and death. As Lewis Lipsett (1989) said, "behavior kills."

Certainly, few could deny that human behavior, the subject matter of our discipline, is at the core of many of the most fundamental concerns of the inhabitants of the planet.

As a core discipline, psychology contains both scientific knowledge about human behavior and methods of applying that knowledge. A good profession must be based on good science, and both the science and the profession are ultimately legitimated by serving the public.

Psychology as a Science

When the founders of the APA announced the formation of a new organization, they were also announcing the establishment of a new discipline. Psychology emerged from philosophy as a self-designated science. The methods of this new science were borrowed from the physical sciences, as John Stuart Mill had advised almost a century earlier. James McKeen Cattell was the first American to complete a dissertation in psychology under Wilhelm Wundt. In his youthful enthusiasm for his very young discipline, he wrote to his parents that "psychology is likely to be the science of the next thirty years—at all events, the science in which most progress will be made" (Sokal, 1981, quoted in Benjamin, 1986, p. 941).

The founders of our discipline saw psychology as integrating knowledge from many sources. They themselves were recruited from a number of disciplines. They included educators, philosophers, physiologists, and physicians. They believed that psychology would not only bring together like-minded scholars from different disciplines but would also bring the concepts of those many disciplines to bear on the understanding of human behavior and thought.

The path of scientific progress has not been easy. From the beginning, psychology has been torn between the urge to know more and more about less and less, or less and less about more and more. Psychology has been criticized both for being preoccupied with trivial problems that ignore the larger picture and for trying to encompass too much.

In a delightful conversation between four developmental psychologists on the future of their specialty, Urie Bronfenbrenner expressed himself on the dangers of too narrow a view by relating the following tale by the great Russian fabulist Krilov, in which a man spoke of his visit to the zoo and all the creatures that he saw there:

Correspondence concerning this article should be addressed to Raymond D. Fowler, APA, 1200 17th St., N.W., Washington, DC 20036.

"The tiny flies and beetles, the ladybirds, jewel-like butterflies, and insects with heads no bigger than a pin. What marvels!"

"And did you see the elephant?" asked his friend.

"Oh, do they have one there? I guess I must have missed the elephant." (Bronfenbrenner, Kessel, Kessen, & White, 1986, p. 1219)

The other side of the criticism that psychological researchers take on too little is the assertion that psychology as a discipline tries to take on too much. This problem is usually posed as a question: Can psychology be a unified science?

The delights of being part of a discipline that is rich in diversity sometimes seem outweighed by the problems of finding unifying themes and principles. Those who observe that psychology is split along the lines of science and practice greatly oversimplify and underestimate the problem of unity in the discipline of psychology. Of course there is a discontinuity between a science and a profession, because each is different in role and function, but the more fundamental issue is whether psychology, per se, can be ordered to a characteristic set of phenomena.

To Sigmund Koch (1969) the answer was clear: *"Psychology,"* he said, *"cannot be a coherent science* or indeed a coherent field of scholarship" (p. 65, emphasis in original). These are strong words, indeed, from the one scholar delegated by the APA and the National Science Foundation to assess the status of psychology as a science. For Koch, the problem was not in the methodology of our discipline but in the scope of our domain. The fundamental flaw that keeps psychology from being a coherent discipline can be found, Koch believed, in the subject matter. "Anything so awesome as the total domain comprised by the functioning of all organisms," he said, "can hardly be thought to be the subject matter of a coherent discipline" (p. 65).

To me, there is something both quixotic and appealing about a discipline that strives for so much despite the odds. None can doubt that we have taken on a worthy challenge. Nor can we reasonably claim that we have mastered the unwieldy beast. Must we then give up the goal of psychology as a unified science? Or are we, as a very young discipline, simply too impatient? Arthur Staats (1983), in his book *Psychology's Crisis of Disunity,* expressed hope for our future. He observed,

Today's psychologist, is bewildered by all but a small corner of the fragmented science. The optimistic message in the present work, nevertheless, is that what psychology has achieved in its 100 or so years of self-conscious striving does provide the raw materials for making the leap to the status of a unified science.

I share that sense of optimism. We must continue to search for the "grand unifying principles." The solution to the problems of diversity cannot be more fragmentation. As a science and as a discipline, psychology must continue to seek the common threads that connect and unite. As Kessen (in Bronfenbrenner et al., 1986) pointed out, "It's perfectly all right for people to till their own garden, but once in a while they are going to have to talk over the fence" (p. 1224).

Psychology as a Profession

The lack of integration within the science of psychology is echoed in the lack of integration between our science and our profession. Psychology began as a science, and its professional aspects developed much later. As Don Peterson (1976) observed, "Having emerged from philosophy as a natural science, neither of which have a tradition of direct service, developing as a profession required a lengthy process of redefinition, which is still underway" (p. 572).

We spent our first 50 years building a science base for the discipline, with little attention to applications, but it would be incorrect to suppose that our founders intended a science without a profession. It is clear from the addresses of our earliest presidents that they foresaw the development of a profession of psychology that could use the knowledge base of our science to benefit humanity.

This is nowhere more clear than in the address of our second president, George Trumbull Ladd of Yale University. Professor Ladd had the great misfortune of serving as president between G. Stanley Hall and William James, thus dooming himself to relative obscurity. His presidential address was not even abstracted in Ernest Hilgard's (1978) collection of APA presidential addresses, but when I located his original 1893 speech, I was astonished by his vision of how a profession might develop.

After reviewing the progress made by the new science, Ladd (1894) expressed his view that psychology would provide the behavioral foundation for the other social sciences. He then focused on the impact scientific psychology could have through its applications:

The obligation to be of practical benefit [is] heavily laid upon psychology. The more I study and teach this science, the deeper does the impression become that it is able and destined to contribute greatly to the welfare of mankind. . . .

The science of psychology may be expected to make large contributions toward the improvement of the art and practice of teaching, [and] the science of psychology may be expected to contribute much to the science and practice of medicine. . . . Even modern surgery has already been guided by the help which physiological psychology has rendered in the . . . localization of cerebral function. Looked at from a truly rational point of view, what can be more amazing than the fact that thousands of doctors are today treating patients suffering from "mental" disease, who themselves never made the slightest study of mental phenomena, sane or abnormal? With so many quacks, on the one side, medicating the mind with drugs, is it greatly to be wondered at that there are so many cranks on the other side? In the diagnosis and treatment of the insane [and] the incorrigible, scientific psychology is surely destined to exert a growing influence. (pp. 19–20)

Ladd predicted that psychologists would be called upon to give courtroom testimony to distinguish between "the insane and the sane criminal" and that "the advantages of prolonged psychological investigation for the improvement of jurisprudence" would be recognized. He expressed the hope that we could expect "to see our science contributing to [improvements] in the school, in the courtroom, the prison, and the asylum," and even in the

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

home where, he believed, "parental influence . . . may . . . be helped and blessed in no small degree by the recent rapid advances of human psychology" (p. 21).

In 1937, 41 years after he gave his presidential address, James McKeen Cattell was asked to comment on psychology as a profession in the first issue of the *Journal of Consulting Psychology.* He said,

> All of the professions need a science of psychology and a profession of psychology. The present function of a physician, a lawyer, a clergyman, a teacher or a man of business is to a considerable extent that of an amateur psychologist. In the inevitable specialization of modern society, there will become increasing need of those who can be paid for expert psychological advice . . . in the end, there will be not only a science but also a profession of psychology. (p. 3)

At the time Cattell spoke, almost halfway into our first century, there were only 3,000 members of APA, and almost all were employed in academic settings. During the years following World War II, the profession of psychology, which had represented a tiny minority of psychologists, began to develop. Thousands of postwar students were attracted to industrial, organizational, school, and clinical psychology. In 1979, the number of psychologists employed in academic settings still exceeded the number employed in all nonacademic settings. Ten years later, educational institutions are still the largest single employer of psychologists, but they are no longer equal to all others combined. This pattern is characteristic of all of the scientific disciplines. The nation has shifted from an agricultural and industrial economy to a service economy, and the predominant locus of scientific employment has shifted from the university to business, government, consulting, and the delivery of services. It would be remarkable if psychology had remained untouched by these national trends.

It is important to remember, however, that growth in psychology is not a zero-sum game. The increase in the number of applied professional psychologists did not cause a reduction in the number of academic researchers. To the contrary, academic psychology continued to increase at a faster rate than most of the other academic disciplines.

Some argue that the emergence of professional psychology hurt the development of our science. But it may be argued that the opposite is true. The increased resources available to academic psychology in the form of research grants and new positions resulted largely from the increased visibility of psychology as an applied discipline. During both world wars, but especially during World War II, psychologists, particularly our scientists, demonstrated that the knowledge base of psychology could be applied to the nation's benefit in time of national crisis. This had the dual effect of increasing our public acceptance and justifying our claims that additional research could result in still more benefits to the nation. The national enthusiasm for psychology attracted undergraduate and graduate students in unprecedented numbers. No similar growth occurred in the other social sciences, which do not have applied or professional aspects. Psychology departments grew in size and resources because they had both a science and a profession. And the profession gained credibility because of its scientific foundation.

The relation between science and practice in a discipline could be (and often is) viewed as hierarchical, with science on top and knowledge trickling down to the practitioner on the bottom. This view is generally accepted by scientists and practitioners alike, but it could as readily be seen in reverse, with science as the foundation upon which practice is built, and practice as the part of the discipline that fulfills the goal of service to the public.

Part of the conflict between scientific and professional psychology is based on a syllogism: Psychology is a science; therefore all psychologists must be scientists. Abraham Flexner pointed out long ago that the fundamental attitude of the professional practitioner should resemble that of the scientist in terms of systematic observation, hypothesis building, and cautious judgement. But the belief that all practitioners should be scientists, or vice versa, is a misconception. As Flexner (1925) said, "The assertion that the intellectual attitude of the investigator and the practitioner should be identical does not mean that . . . investigation and treatment coincide; it does not mean that practitioners should all be experimenters or that investigators must all be practitioners" (p. 12).

The changing face of American psychology has, I believe, been widely misunderstood. The fact that large numbers of psychologists are being trained primarily for applied positions rather than academic–research positions does not mean that psychology will be less able to develop as a scientific discipline. We are currently producing enough academic–research PhDs to fill all of the available positions, and we will soon be increasing that production to meet the needs of the next century. The proportion of our scientists who graduate from the major research institutions has not decreased, and the absolute number of scientist–practitioners who graduate from those same institutions has remained constant. The large growth of new doctorates outside the major research institutions is made up of professional psychologists, and they are coming, as one might expect, from professionally oriented programs, not from the major research departments.

Professional psychology has emerged almost entirely in the last third of our first century. This growth took place during a period in which most of the new opportunities for employment occurred outside academic settings, especially in the health-care sector. The changing face of American psychology involves the development of an additional face—a professional face—and not the demise of our already well-established academic–research face. Psychology has not *become* a profession; rather, psychology has *added* a profession to the academic science foundation that already existed.

There may still be a few people who actively discourage the application of psychology on the grounds that it compromises the purity of our science, but surely such is a minority view in our discipline. Most psychologists

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

recognize the importance of applying psychology, and throughout our history there has been great optimism that the application of psychology can benefit humanity.

Similarly, there may be a few who believe that the profession of psychology has outgrown its scientific base and that professional psychologists no longer need a close connection with academic–research psychology. But they represent, I believe, an even smaller minority.

As we have seen so vividly, the intrinsic differences between science and practice often result in conflict. As William Bevan (1982), our 90th president said, "We differ in motivation and goals, in priorities, in intellectual styles, in human values, and in temperament, and we won't find peace by glossing over these differences" (p. 1310).

I think you will agree with me that whatever we have been doing lately, we certainly have not been "glossing over our differences." But I believe that increasing numbers of us are ready to shift from a preoccupation with our differences to an examination of how our diversity can contribute to psychology as a whole. Bevan (1982) commented that "the problems which ultimately will tax us most severely [are] the problems of balance and interrelatedness between our basic and applied concerns" (p. 1303). It seems to me that it is that interrelatedness that has been most seriously neglected to the detriment of our discipline and our Association. It is that balance that we most need to achieve.

How does a profession build on science? Harrison (1984) pointed out that it is almost always a reciprocal relationship. Rather than saying that science drives practice or that practice drives science, it would be more accurate to say that they are synergistic.

Thus, the solution to our problem as a discipline is at once very simple and very difficult. How can we achieve the synergy that is necessary if psychology is to contribute what it has the potential to contribute? How can we develop that reciprocal relationship between the science and the profession and, more important, between scientists and professionals?

In an address to Psi Chi at the 1988 APA convention, I said, "During the first six months of my presidency, our association has been far more fractionated and divided than it has ever been in my experience. . . . If I have a single, primary personal goal during this year, it is to do all I can to maintain a unitary APA, and as matters have developed that has become an increasingly difficult goal" (Fowler, 1988, p. 3).

As I assume my new role as chief executive officer of APA, that observation is no less true and my primary goal is unchanged. I know that most psychologists would prefer a unitary APA that can represent all of psychology, although many doubt that it can be achieved. I firmly believe that it can and will be achieved. In his 1893 APA presidential address, George Ladd (1894) noted that the future success of American psychology depended "very largely upon the action, individually and in corporate fashion, of the members of this Association" (p. 11). I believe that is no less true today.

I am continually told that the American Psychological Association is in a state of crisis. I do not deny that, but I like to remind myself that a crisis is defined as a turning point, an unstable or crucial period the outcome of which will make a decisive difference for better or worse. The choice of whether the outcome of our crisis will be for better or worse is a choice that will be made by human beings, not by circumstances or by fate. It is our choice to make.

We have, throughout our history, faced many troubling periods that threatened our unity, and through cooperation and good will we have surmounted them. Although some people see APA as rigid and resistant to change, it has, in fact, been surprisingly flexible in accommodating itself to new conditions, especially when these new conditions threatened the unity of psychology. For most of our history, the demands for change have come from applied psychologists; more recently academic–research psychologists have found the organizational structure unsatisfactory.

In 1917, and again in 1937, applied psychologists became so dissatisfied with APA that they founded new national associations to represent them. In response, APA modified its structure, admitted members of the new associations as members of APA, and changed its bylaws in ways that were supportive of professional psychology. The changes were not made as rapidly as some would have liked, but they were made and they succeeded in keeping APA united. Once again we have reached a time when some members feel frustrated and disenfranchised by our structure, and once again we need to find ways to meet the needs of those members.

Why is it important to preserve APA as a unitary association representing the science and profession of psychology? Surely the advantages of a common voice in advocacy and in public image are apparent to all. During the past decade the effectiveness of our science advocacy has become the envy of many other scientific organizations. We have become a significant and responsible factor in national policy decisions, and more recently our professional advocacy has developed as a significant force at the national and state levels.

But I believe there are more important reasons to keep APA together. I hope I will not sound grandiose when I say that I consider the American Psychological Association a vital national asset and that I believe we have a responsibility to preserve it for the public good.

The history of APA is the history of American psychology. APA helped to establish the science of psychology by providing scientific conventions, by publishing the major psychological journals, and by preserving and disseminating our knowledge base. Psychology has become one of the most successful scientific disciplines, and APA has long been the leader among the world's national psychological associations.

While promoting and preserving scientific psychology, APA has also helped to nourish and guide the development of the profession of psychology. In a few short years, professional psychology has moved from being a very minor player to being one of the major health care

disciplines. Psychology has already surpassed the other mental health professions, with over 50 million hours of mental health care services provided by psychologists each year. By providing strong professional and ethical standards and vigorously enforcing them, APA has helped to make psychology a highly regarded profession as well.

Both our science and our profession have achieved a considerable measure of respect. Why do we not respect each other? Academicians and practitioners have different activities and different priorities—but why can we not value each other's differences? John Gardner could have been speaking of the discipline of psychology when he attributed the problems of modern society to "a loss of mutual trust."

The early presidents of APA were all scientists and academicians because there was, of course, no profession of psychology then. They had the foresight and vision to realize that psychological science had the potential to contribute greatly to the solution of human problems. They also had a conviction that one day a profession would grow from the foundation of our science. I believe it would have surprised them to see how successful psychology has been in establishing a science and a profession—and how unsuccessful we have sometimes been in learning to get along with each other.

There are psychologists who say that we must be either a professional association or an academic association. I believe that there is no reason that we should limit ourselves to being only one or the other. National surveys indicate that just over 40% of all psychologists in this country are employed in academic settings, a similar number are health care service providers, and 20% are employed in a wide variety of government, business, applied, and research settings. If APA is to continue to represent psychologists in all of these settings, we must somehow regain our sense of mutual trust.

There are some who foresee a grim future for psychology: exodus of our best scientists to other disciplines and the gradual withering away of our science; separation of our professional training programs from our scientific knowledge base and our profession from our science; and Balkanization of our strong national association into a number of smaller groups speaking for their special concerns but not for the entire discipline of psychology.

We can achieve such self-destruction if we choose, but I have too much respect for my colleagues to believe that will happen. Our predecessors found ways to reconcile their differences and to coexist. I cannot believe that we are less intelligent or less generous. The process must begin with individual acts of mutual respect and restraint in the uses of power. I know of many who are already working to achieve this. I believe we have already begun to turn the corner in this crisis and that we will find solutions to our mutual dilemma.

My vision for psychology is not defeat and disintegration. I believe we can enter our second century as a unitary association and a unified discipline. In its first century, psychology established itself as a major discipline with a strong science and a vigorous profession. Our prospects for the second century are limited only by our vision and our personal decisions.

The economic future of America and of the world depends on training, management, leadership, knowledge exchange, and the effective application of artificial intelligence. All these are the natural province of psychology. The major issues in health care, the fastest growing industry, are no longer disease and infection, but life-styles and prevention, which are psychological, not medical, issues. Physiological, social, clinical, and health psychologists will make important contributions to the nation's health through scientific research and professional application. Psychology will be a major player in what the National Institute of Mental Health has called the Decade of the Brain. Psychologists will use the developing technologies of brain mapping and genetic mapping to further explain human thought and behavior.

We can build, among ourselves and with colleagues in related disciplines, cooperative and synergistic relationships. Instead of fragmenting, we can bring ourselves together to make our knowledge base work for the benefit of humanity. In a new period of almost unlimited technological growth, the discipline of psychology can bring both the intellectual and the humanistic vision to finally justify the brave words of G. Stanley Hall and make our second century a golden age for all of psychology.

REFERENCES

Benjamin, L. T. (1986). Why don't they understand us? A history of psychology's public image. *American Psychologist, 41,* 941–946.

Bevan, W. (1982). A sermon of sorts in three plus parts. *American Psychologist, 37,* 1303–1322.

Bronfenbrenner, U., Kessel, F., Kessen, W., & White, S. (1986). Toward a critical social history of developmental psychology: A propaedeutic discussion. *American Psychologist, 41,* 1218–1230.

Cattell, J. McK. (1937). Retrospect: Psychology as a profession. *Journal of Consulting Psychology, 1,* 1–3.

Flexner, A. (1925). *Medical education: A comparative study.* New York: Macmillan.

Fowler, R. D. (1988). Address. *Psy Chi Newsletter, 14*(4), 1, 3–5.

Harrison, A. J. (1984). Science, engineering, and technology [Editorial]. *Science, 223,* 543.

Hilgard, E. (1978). *American psychology in historical perspective.* Washington, DC: American Psychological Association.

Koch, S. (1959). *Psychology: A study of a science.* New York: McGraw-Hill.

Koch, S. (1969). Psychology cannot be a coherent science. *Psychology Today, 3,* 14, 64–68.

Ladd, G. T. (1894). President's address before the New York meeting of the American Psychological Association. *Psychological Review, 1,* 1–21.

Lipsitt, L. P. (1989, June). *Behavior is a life and death matter: Risk factors in development.* Invited lecture presented at the meeting of the American Psychological Society, Alexandria, VA.

Miller, G. A. (1969). Psychology as a means of promoting human welfare. *American Psychologist, 24,* 1063–1075.

Peterson, D. R. (1976). Is psychology a profession? *American Psychologist, 31,* 572–581.

Sokal, M. M. (1981). *An education in psychology: James McKeen Cattell's journal and letters from Germany and England, 1880–1888.* Cambridge, MA: MIT Press.

Staats, A. (1983). *Psychology's crisis of disunity: Philosophy and method for a unified science.* New York: Praeger.

Woodworth, R. S. (1943). The adolescence of American psychology. *Psychological Review, 50,* 10–32.

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.