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THE PUBLIC'S PERCEPTION OF PSYCHOLOGY: ATTITUDES OF FOUR
SELECTED GROUPS

City University of New York

PH.D. 1984

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**The public's perception of psychology:
Attitudes of four selected groups**

by

Ronna Kabatznick

**A dissertation submitted to the Graduate
Faculty in Psychology in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy, The City University of
New York**

1984

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This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

Jan 26, 1984
date

Stanley Milgram
Chairperson of Examining Committee

January 27, 1984
date

Herbert A. Saltzstein
Executive Officer

Dr. Stanley Milgram
Dr. Stephen Cohen
Dr. Florence Denmark
Supervisory Committee

The City University of New York

Abstract

The public's perception of psychology: Attitudes of four selected groups

Advisor: Professor Stanley Milgram

A survey questionnaire designed to assess knowledge and attitudes towards psychology was completed by 227 respondents including psychologists, business people, scientists and shoppers. Overall, respondents indicated favorable attitudes towards psychology, although competing perceptions about what psychology is and to what aims psychology should strive was found among the groups. Psychologists and scientists were more attuned to the scientific aspects of the profession whereas business people and the shoppers focused on the professions' therapeutic side. Criticisms were marshalled primarily against psychology's unscientific and dehumanizing nature. The value systems inherent to the professional groups seem related to their perceptions of psychology. Business people apply standards to psychologists which relate to financial interests while scientists were more likely to judge psychology by standards relating to control and predictability. The problems of reconciling the scientific and humanistic aims of the profession were discussed. Suggestions as to how psychologists may improve their image were made and directions for future research were considered.

Acknowledgements

I am grateful to the following persons who helped me carry out this study.

First and foremost, I would like to express my profound gratitude and appreciation to Professor Stanley Milgram, my dissertation adviser. Throughout this dissertation and my years as his graduate student, Dr. Milgram has generously given me unparalleled intellectual guidance, valuable time and good cheer. He encouraged me every step of the way. His sympathetic interest in this study was there from the first moment he learned of the idea and continued through its completion. All of his suggestions and insights have been so useful, it is impossible to imagine this study without them.

Professor Stephen Cohen contributed to the conceptualization of this dissertation at the time when it was no more than a title. Amidst his hectic schedule, he always had time to speak with me and offer his perfect advice.

It was Professor Florence Denmark who recommended examining scientists' perceptions of psychology and then helped obtain membership lists from the New York Academy of Sciences for recruitment purposes. Dr. Denmark also encouraged me to carry out this study assuring me of its

importance and general interest to the psychology profession.

Professors Herbert Salzstein and Alden Wessman, my outside readers, gave me specific and useful suggestions during the final stages of this dissertation.

Tzippora Hess shared her impressive knowledge of the computer by teaching me how to use it and by helping me write the program for the data analysis. She literally sat by my side through countless ANOVA's and error messages and helped me figure out what they all meant. Without her help, this part of the dissertation would have been much more tedious and much less fun. Professor David Rindskopf suggested statistical analyses appropriate for this study. Nava Lerer, Pearl Beck, Sheryl Canter, and Andy Rosenblum were also helpful with the data analysis.

Claire Dickerson edited most of this manuscript. Her comments and insights were extremely valuable and instructive.

Christina Taylor has been a steady source of inspiration since we began our graduate work together. Her own work as a psychologist has been a model of intellectual achievement which I have always admired.

Rosalind Eichenstein, David Nemiroff and Joyce Block also provided many stimulating comments after reading drafts of this project.

Cynthia Weinman and Marjorie Weiner assisted in the construction of the survey questionnaire before it was professionally typed by Elizabeth Ramos of Oxtoby-Smith.

Professor Charles Kadushin kindly allowed to me to use his printer for the final copy of this dissertation.

Madeline Balmaceda-Goldberg designed the sign used in the shopping mall to attract respondents.

Amy Kabatznick helped find business people to respond to this survey.

My father arranged the site where I collected data on shopper's perception of psychology.

Dr. Robert London's brilliant guidance and constant encouragement were the reasons I came to graduate school in the first place.

Finally, I owe a debt of appreciation to the 227 people who took the time to share their perceptions of psychology by completing the survey questionnaire on which this dissertation is based.

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Chapter One

Introduction

Almost every psychologist can recount at least one anecdote involving strangers who suddenly became nervous or hostile upon learning they were talking to a psychologist. Acting on an image of what a psychologist is, that person may have remarked "Oh, are you reading my mind?" or "Can you analyze me or my dreams?" or "Do you shock rats or pigeons?" One social psychologist reported that on one occasion, when he told what his profession was to a person with whom he was speaking, the stranger bolted from his seat and loped away without saying a word (Shaw, Note 1).

In order to avoid such reactions some psychologists give vague replies when asked about their profession. One Professor and former clinician stated that he rarely tells strangers what he does. "I work in an office," is his standard response (Bard, Note 2). Concealing his profession has become a way of life for another clinician for over twenty years. In this case, he simply tired of having strangers in nonprofessional contexts demand personal advice (Cabin, Note 3).

Given that these types of experiences are common and sometimes so dramatic, it is surprising that psychologists have not focused more on what these reactions imply about the public's perception of psychology. And it is ironic that those who seek to understand the thoughts, feelings, and behaviors of others, have so little knowledge about how they are perceived by those whom they seek to understand. Personal anecdotes and hearsay on this matter are common, but no studies have systematically examined how psychologists perceive themselves and their profession, and only a handful of studies have examined in a limited way how the profession is perceived by the public.

Those studies that have been reported in the literature, however, (e.g. Cohen & Wiebe, 1955; Dollinger & Thelen, 1978; Grossack, 1954; Guest, 1948; Murray, 1962; Thumin & Zebelman, 1967) have focused on clinical psychology or on the distinction between the profession of psychology and psychiatry. Their results generally indicate that the public has difficulty distinguishing between the roles of psychologists and psychiatrists, and that the public tends to perceive psychology as a profession primarily focused on the study and treatment of abnormal behavior.

While clinical psychologists do in fact represent the largest percentage (43%) of all psychologists currently employed in the United States (Occupational Outlook Handbook, 1980), there are many other types of psychologists whose roles seem to go unrecognized by the public.

Nonetheless, how people behave when they enter a psychological laboratory or a clinician's office may well depend on the expectations they have from a general public image. The public's prevailing image of psychology may also influence experiences as diverse as the interpersonal lives of psychologists, course selections of undergraduate students, and decisions to seek out psychotherapy or to participate in a research study, or on a much broader level, the decision to support research funding.

Given the profession's lack of systematic knowledge about how psychology is perceived by psychologists and non-psychologists alike, it seems reasonable to fill this gap in our knowledge. The present study will examine the perceptions of psychologists, business people, hard scientists and a group of people from a middle-class shopping mall. These professional groups were chosen because they represent large segments within the general population and because they were available for a study carried out with limited resources. The general public

sample was included because of the importance of assessing the profession's image from the average person-on-the-street perspective.

In the present study I will examine how psychologists view their own profession and how these perceptions compare with those of scientists, business people and the shoppers. In doing so, I shall also examine whether criticisms raised by psychologists are limited to the profession or are parallel to the views of other groups.

A questionnaire was developed in order to examine perceptions of various aspects of the psychology profession including perceptions of psychotherapy, research psychology and of "psychology" in general. The purpose of this questionnaire was to assess the general breadth and depth of respondents' knowledge and information about the profession and to see how they compare with the scientific, business and general public respondents.

Are we justified in referring to the public's reaction to psychology as a whole? As professionals, we know that some psychologists study psychophysics in the laboratory, while others treat clients with emotional problems. The fact that the American Psychological Association has no less than 43 divisions, ranging from neuropsychology to divisions on military, industrial and psychoanalytic psychology

attests to the enormous diversity within the field. However, it is an open question whether non-psychologists share this differentiated view. Indeed, general images toward other multi-faceted professions such as law, medicine and teaching do seem to exist and there is reason to believe that psychology may also be reacted to in a unitary or molar fashion.

Finally, this study serves an additional, specific purpose. The American Psychological Association has recently been making an effort to increase the public's understanding of psychology. Severe budget cuts which threatened the profession's future alerted psychologists to the fact that the profession can no longer afford to ignore the views of those who support it and who are affected by it. As a result, several projects have been initiated by the American Psychological Association which are specifically designed to improve the profession's public image. One recent project was the purchase of Psychology Today (APA Monitor, 1983). Other projects include a revision of the annual meeting to incorporate programs for the public and an information referral service established for the media by the APA Public Information Office (Bevan, 1982).

So while this study serves the purpose of increasing knowledge in an area where little information has been accumulated, it also fits into a larger framework which involves current professional concerns about psychology's public image. Effective communication with the public is widely acknowledged as a crucial aspect of the profession's future standing in society.

According to Fishman and Neigher (1982)

An average of less than 50 people completely read a social science journal article, whereas millions watch T.V., listen to the radio, attend movies, and read newspapers, magazines and other popular books. We need to use these other media to communicate the contributions of American psychology to the general public, to those who make policy, and to those who use social science information. If we continue to write only for each other in language incomprehensible to the general public, we will surely publish and perish (p. 544).

Clearly, the profession of psychology is confronting new circumstances. It has been remarked (Walsh, 1982) that the golden age of science, when the public uncritically revered all scientific endeavors, thought it contributed immensely to society and when money for psychology was readily available, is over. Therefore, acquiring knowledge about the public's perception of psychology can have a significant practical impact on the way in which psychology

is communicated, taught and practiced.

Chapter Two

Review of the literature

Assumptions about psychology's public image

Problems with the public image of science-related professions have been an historical fact in the United States. In 1910, the Flexner Report on Medical Education in the United States and Canada spoke of the public's ignorance of science and called for efforts to improve science's impoverished image. Nearly three quarters of a century later, former APA president William Bevan (1982) issued a similar call for improvement of psychology's image, stating that "thus far the scientific and professional community has done a thoroughly miserable job in its feeble efforts to implement such an objective" (p. 1316).

Over the past two decades, numerous psychologists (Anschuetz, 1979; Atkinson, 1977; Bevan, 1971, 1976, 1982; Elms, 1975; Fishman & Neigher, 1982; Koch, 1971; Miller, 1967; Shaffer, 1977; Smith, 1973; Wertheimer et al., 1978; Wachtel, 1980) government officials (Bazelton, 1982; Hatch, 1982; Inouye, 1981 Walgren, 1982) and journalists (Lofton, 1972; Hager, 1982; McCall & Stocking, 1982) have called on psychologists to reach out to the public with useful, informative and comprehensible information about their profession, and to play a more active role in

improving the public's understanding of science in general.

Their concern is based on a view that "the public's conception of psychology is simplistic, limited, and grossly imbalanced" (Bevan, 1982, p. 1314) and that the "American public is ... dissatisfied with - even hostile to - ... psychology and the social sciences" (Atkinson, 1977, p. 206). Indeed, the issue perceived by professionals is not whether the public has these negative feelings toward psychology but, instead, what causes the ignorance and hostility. These assumptions of public ignorance and dissatisfaction are so pervasive, that not one opposing argument has been offered to contradict this view.

Two major forces

The recent concern about the public's perception of psychology began in in the 1960's and 1970's and emerged out of two related intellectual and social forces.

The first was the internal crisis within psychology (Elms, 1975) -- which still continues today. This period has been marked by grave and widespread doubts concerning the profession's values, goals, tenets, methods and accomplishments. Pronouncements such as "[w]e psychologists have contributed very little or real importance" (Miller, 1969, p. 1063), "[w]hat [research] seemed promising turns out to be sterile, palpably trivial, or false, and a waste of time" (Littman, 1961, p. 232), and " ... the field ...

[is] ... saturated with 'cute' experiments and [with] petty quarrels between theorists who seem more bent on establishing reputations than truth ..." (Ring, 1967, p. 54), lace the professional literature lending a sardonic and demoralizing tone to it.

At the heart of this crisis lies a set of complex issues centering on the relationship between psychology's humanistic concerns and its scientific aspirations. A number of problems emerged out of the profession's original goal of applying scientific principles to human thoughts, feeling and experiences. These issues fall into the two areas that divide the psychology profession: the first relates to research and the second, to clinical considerations.

The research issues center around whether current research methods are ethical (Baumrind, 1964; Kelman, 1967), and whether they produce findings that are valid, scientific, relevant and/or effective (e.g. Cronbach, 1975; Diboye & Flanagan, 1979; Epstein, 1980; Elms, 1975; Gadlin & Ingle, 1975; Gergen, 1973; Gibbs, 1979; Harre & Secord, 1972; Israel & Tajfel, 1972; Koch, 1976; McGuire, 1973; Miller, 1969; Moscovici, 1972; Ring, 1967; Schlenker, 1974; Silverman, 1971; Smith, 1972, 1973).

The clinical issues have focused on whether the claims made by psychotherapists have any empirical support (Eysenck, 1963, 1966; Goldfried, 1980; Gross, 1979; Wilson, 1980; Strupp, 1979, 1980) and whether any clinical process actually does more harm than good (Eysenck, 1973; Garfield, 1982; Parloff, 1979; Strupp & Hadley, 1979; Tennov, 1975).

The second force concerns the government's increasing criticism of the psychology profession. In the immediate post-war period, psychologists had been appropriated large sums of money for research and program development to help eradicate severe social problems including criminality, poverty, racial tensions and mental illness. The time had come, some officials felt (cf. Handler, 1981), to evaluate the outcome of their efforts.

This assessment of the profession's contributions to improving the quality of American life came at the time when the government began looking for ways of trimming the national budget. Public officials began their own independent assessment of psychology and in doing so, asked questions similar to those raised by psychologists dealing with the scientific legitimacy, relevance, and efficacy of psychological research and practice.

Not suprisingly, several public officials adopted many of the criticisms advanced by psychologists during their internal crisis. Their message was clear: Psychology had not established itself as a scientifically legitimate and useful discipline in the eyes of American taxpayers. One suspects that this assessment of psychology by prominent political figures was assumed to reflect the public's dissatisfaction with psychology even though no systematic study had ever been undertaken.

These two forces -- psychology's internal crisis and the political criticisms of psychology -- although significantly different in origin as well as motivation, alerted psychologists to the notion that their actions in both the research and the clinical domains were not free from scrutiny. A positive public image came to be seen as critical to both the success and the survival of the profession.

Specific negative assumptions about psychology's public image

In spite of the fact that very little research has been conducted on the public's perception of psychology, psychologists and other social scientists, politicians and journalists have put forth a number of assumptions about psychology's public image. Although the motivation for each group may have been different, their views on why the public

is dissatisfied with psychology and psychologists are suprisingly similar.

In considering these assumptions, two important points are useful. The first is that the major assumptions raised in connection with psychology's poor public image had originally been raised as concerns and criticisms by psychologists themselves during their internal crisis.

The second issue concerns the nature of the criticisms of the psychology profession. Although the empirical research investigating the public's perception of psychology is narrowly focused on the image of clinical psychology, assumptions about the profession's public image relate to research psychology. This is noteworthy since studies indicate that the public has little awareness of research psychology and, therefore, cannot be assumed to have any opinion or impression of it.

There are three common assumptions about the public's image of psychology. The first is that psychology is perceived as an ineffective discipline, the second is that psychology is perceived as unsystematic and unscientific. The third assumption is that psychological knowledge may be threatening to people's image of themselves.

Psychology is ineffective

On the broadest level, Robert Nisbett (1981) has suggested that negative attitudes towards the social sciences (of which psychology constitutes an important part) can be attributed to the fact that it has not demonstrated any capacity to eradicate major social problems. In fact, the problems worked on by behavioral scientists not only remained unsolved they often grew worse. More specifically, Prewitt (1981) suggested that the public has also been disappointed with the lack of depth or genuine expertise in the solutions proposed by psychologists. They hardly seemed unique since many simply appeared to validate what everybody already knew. Studies that linked criminality with poverty, disease with poor nutrition, and frustration with aggression and violence, were common sense. Some critics not only deprecated the substantive contribution of psychological research but also questioned the motives of those who carry it out. Fishman & Neigher (1982) quoted a State Representative as saying:

Not one rummy has been taken off of
Baltimore streets by this research.
Not one drunken husband has been
dissuaded from beating his wife or one
drunken mother from beating her children.
These research projects are like exotic,
expensively mounted butterfly collections,
hidden away in vaults and only exhumed
from time to time to display to other
collectors of the rare and unusual, mutual
reaffirmation of their elite status (p. 533).

Senator William Proxmire was one of the most influential of such critics. Over the past ten years, he has charged that social science research is worthless, a waste of time and money and that his view reflects those of the American public's. Mock awards -- The Golden Fleeces -- were presented to federally funded research projects he judged to be particularly flagrant wastes of the taxpayer's money. The "Awards" received national attention and figured prominently in newspapers, magazines, and television reports. Among the projects singled out were those concerned with the sex life of the screwworm fly (which ultimately lead to the control of a deadly disease) and the work by social psychologists Ellen Berscheid and Elaine Walster on the nature of physical attractiveness and love. He focused on topics irrespective on their context in order to demonstrate that psychologists were investigating trivial issues which were unrelated to the nation's wellbeing. Proxmire also suggested to the public that the researchers were intentionally defrauding the taxpayers with research they knew to be of no value (Shaffer, 1977).

Psychology is not scientific

Proxmire also went on to criticize the scientific basis of the behavioral sciences "It's too bad they're called sciences, because they are not quite. I don't know what they are. They're somewhere between science and art." (APA Monitor, 1975, p. 6).

Henry Reicken (1981) suggested that public dissatisfaction with psychology stems from the idea that psychology is viewed as just another set of opinions about familiar social problems. As a result, most people already consider themselves "experts" in human behavior or at least on a par with those with formal training in the field. To the extent the public feels they can duplicate the analysis of psychologists, they will similarly doubt that a science of human behavior is possible.

Other critics have charged that even when psychology aspires to scientific goals, it fails to achieve them. (Bazelton, 1982). Psychologists offer only contradictory theories and explanations which confuse and alienate the public (Bazelton, 1982; Wade, 1982) and which encourage the idea that psychologists just spout out any thought or opinion. Presumably, if there were any validity to psychologists use of the scientific method, results of studies on the same topic (e.g. television violence and antisocial behavior; sex differences and behavior

potential) would yield similar results instead of completely dissimilar or even contrary ones (Wade, 1982).

At the base of the criticisms by Proxmire and others (e.g. Walgren, 1982) are certain assumptions about the the fundamental differences between "hard" and "soft" sciences. Essentially, they argue that the nature of physical phenomena allow for certain regularities and controls that are impossible to achieve with social science phenomena. Psychologists, too, have expressed their doubts about the scientific nature of psychology suggesting that it is more akin to history (Gergen, 1973) or to the humanities and arts (Koch, 1969; 1981) than to science. These claims persist in spite of the general consensus among philosophers of science that "there is really nothing fundamentally different about the social sciences as compared to the natural sciences which would preclude the attachment of the 'honorific' label 'science' to both branches of knowledge equally" (Schlenker, 1974, p. 1).

The lack of agreement regarding the field's scientific status is incompatible with the fact that the profession's scientific basis is most often cited in arguing the merit of public expenditure for psychological study and practice (Kiesler, 1979).

Psychological insights are threatening

The reason for the assumed negative attitudes towards psychology, according to Prewitt (1981), is that social research can be threatening to people's image of themselves. Behavioral research often addresses questions of social value and importance and therefore does not have the neutrality of physical sciences (de Sola Poole, 1980). In fact, insights generated from these psychological projects may be troublesome and disturbing. After all, who wants to be perceived as someone likely to be unresponsive to a victim's plea for help (Latane & Darley, 1970)? As someone capable of extreme cruelty over powerless and defenseless others (Zimbardo, 1973)? As someone who follows orders even when they mandate harming an innocent person (Milgram, 1974)?

Psychologists such as Jourard (1967) also advocate studying the positive aspects of human behavior. Although others (e.g. West & Gunn, 1978) agree with Milgram (1977) who warns that an exclusively positive focus would lead to a "very lopsided psychology, one that caricatured rather than accurately reflected human experience" (p. 21).

Senator Orren Hatch (1982) has suggested that the public's negative attitude towards psychology comes from the fact that psychologists encourage morally controversial behaviors including loose sex, abortion, and birth control.

Well aware that the nature of psychology is broad enough to encompass every and any aspect of personal and social behavior, he has suggested that psychologists be cautious about the kinds of topics they investigate. According to Hatch:

Psychology deals with issues that verge on many of the areas of life that are most sensitive, private, and value charged. Such breadth can potentially put psychologists in a position or arousing suspicion in, or alienating segments of society ... If psychology wants to be accepted as a scientifically valid monitor of society, and even more, if psychology wants to be accepted as a reliable agent for positive social change, psychologists cannot be seen as a group on the fringe of social normality who are promoting social deviance (p. 1035).

Another assumption related to Hatch's is one which suggests that psychologists operate with a "pernicious" hidden agenda (Bazelon, 1982). This implies that psychologists have a set of ulterior motives as they set out to do research: the most common and the most threatening motive being behavior control. According to George Miller (1969)

... the simple fact that so many psychologists keep talking about control is having an effect on public psychology. The average citizen is predisposed to believe it. Control has been the practical payoff from the other sciences. Control must be what psychologists are after, too. Moreover, since science is notoriously successful, behavior control must be inevitable. Thus, the layman forms an impression that control is the name of the road we are traveling, and that experts are simply quibbling about how far down that road we have managed to go (p. 1068).

In a discussion of the public's view of psychology from a layperson's perspective, Lofton (1972) cited several negative reactions to psychologists and specifically pinpointed the public's fear of behavior control. He argued that psychologists, in an effort to make theories relevant, have demonstrated their machiavellian nature through efforts to control the aggressiveness of national leaders, to manipulate consumers through seductive advertising, and to assist leaders in building utopian societies.

Behaviorism is the concept most closely associated with control. According to behaviorist doctrine, only the study of directly observable behaviors and the stimuli and reinforcing conditions that control them can serve as the basis for formulating scientific principles of human behavior. Origins of the behaviorist approach can be traced to the Russian physiologist Ivan Pavlov, but credit for its elaboration largely belongs to three American psychologists: John Watson, E.L. Thorndike, and B.F. Skinner. All of these researchers relied heavily on experimentation with animals including dogs, rats and pigeons, and materials such as flashing lights, bells, raw meat, and electric shocks to operationalize and validate the theoretical concepts. Of the three Americans, Skinner's work has received the most public attention.

In 1948, his novel Walden Two was published. In this widely read book, Skinner depicted a utopian society based on the systematic application of learning principles and behavior modification procedures. People, not animals, were the recipients and the outcome was a society without conflict. Instincts, feelings and the complexities of the human spirit were conspicuously absent in this account.

Skinner (1982) has acknowledged the hostility behaviorism engenders; he points out that the public associates it with "brain surgery, brain stimulation ... Pavlovian conditioning ... [and] vomit inducing drugs" (p. 49). According to him and others (Eysenck, 1970, 1971; Farcas, 1980; Willes and Giles, 1980), Americans are threatened by this view of human nature which contends that people can easily be controlled and manipulated. In fact, the behaviorists are so conscious of this presumed negative public image, it has been suggested that the term behavior modification be abandoned as too drastic, emotion arousing (Krasner, 1976) and "partisan" (Bandura, 1969).

Stanley Milgram's obedience experiments

Perhaps the single most visible piece of research carried out by a psychologist has been Stanley Milgram's experiment on obedience to authority (1963, 1974). This experiment, conducted at Yale University during the early 1960's, received nationwide publicity because the findings

were unexpected and dramatic, and because controversial methods were used to obtain them. Since then, the experiment has become a symbol of psychological experimentation in that its method and subject matter highlight ethical and technical issues considered problematic to the profession's self and public images.

In the Milgram study, several technical illusions were used in order to convince subjects they were shocking an innocent person when in fact they were not administering any shock. The purpose of the study was to find out whether subjects would obey or disobey an authority figure's orders to inflict pain on another human being. As is now well known, 65% of the subjects obeyed the directives of the experimenter and delivered the "shocks". Through several variations on the basic paradigm, the findings also identified the specific conditions under which people's propensity to obey or disobey orders are operative.

On a more fundamental level, Milgram's results presented disturbing insights and revelations about human behavior which may well have threatened people's self-concept and or their views about human nature. He demonstrated the discomfoting fact that the situation is the major determinant of malevolent acts, and thereby revealed that there exists a basic human capacity to engage in destructive behavior. Parallels were drawn between the conditions leading up to the specific annihilation of six

million people and the conditions in the laboratory which increased the likelihood of obedient behavior. This association led many to conclude that Milgram was saying that people are fundamentally evil and potential Adolf Eichmanns. Although this was far from Milgram's findings or conclusion, the distressing and offensive idea has been said to have contributed to the public's negative image of psychology (Warwick, 1975).

The Deception controversy

Further, Milgram's widely cited experiments may have alerted the public to the fact that psychologists sometimes use deceptive techniques in their research to examine certain facets of human behavior. Critics (Baumrind, 1964; Crano & Brewer, 1973; Kelman, 1967; Orne & Holland, 1968; Warwick, 1975) of this procedure in general assumed that the public thoroughly rejects such techniques and considers deception of any kind and in any form, unjustifiable.

According to Warwick (1975), accounts of experiments using deception negatively affect the public's perception of psychology in a most direct manner: "Through many channels social scientists tell the public that lying is justified when it is for the right ends. In this way they undermine mutual trust and make it easier for others to follow suit. They also reinforce a cavalier attitude toward truth in their own profession" (p. 40).

Similarly, Kelman (1967) has suggested that the public may hold a negative view about psychology because of the presence of deception in experiments with human subjects. Deception, he argues, demeans the relationship between the experimenter and subject, and at the same time ties research to shady and manipulative practices. Kelman believes that deception may be harmful to the psychological health of the subjects and experimenters alike, and that the effects of such practices reach beyond the limited dimensions of the psychological laboratory.

What do the subjects themselves say? In spite of the numerous claims that they really find deception experiments to be unethical, harmful, and an invasion of privacy, there is a paucity of research or actual reports of trauma and injury (Milgram, 1977) which would confirm these pronouncements. In fact, close examination of the studies reveals an different picture of how subjects react to ethically controvertial experiments.

In general, the studies indicate two things. First, psychologists are significantly more conservative in defining what constitutes ethical experimentation than are subjects (Holmes & Bennett, 1975) and second, the long-term or negative effects on subjects or potential subjects are virtually nonexistent (Farr & Seaver, 1975; Mannucci, 1977; Milgram, 1974; Ring, Wallston & Corey, 1970; Sullivan & Deicker, 1973; Wilson & Donnerstein, 1976. Milgram, for

example, asked his subjects to indicate the degree to which they were glad or sorry to participate in the obedience experiment. Overall, 83.7% of the participants indicated they were either very glad or glad to have been in the study. Similarly, Mannucci (1977) questioned 192 subjects about their reactions to ethical aspects of psychology experiments and found that they regard deception as a relatively minor issue. What concerned them was not deception but the quality of the experience they would undergo as subjects. Farr and Seaver (1975) also found that subjects were likely to regard various "intrusive" data gathering procedures as relatively minor infractions. Taken together, these studies suggest that subjects may consider deceptive and/or intrusive techniques legitimate, and even necessary aspects of psychological experimentation. In short, the public does not seem to share certain professionals' concerns.

The image of psychotherapy

Of any subspeciality within psychology, psychotherapy has received the most public attention. In spite of numerous attacks on psychotherapy, (e.g. Gross, 1962; 1975; Packard, 1957; Tennov, 1979; Whyte, 1956) the psychotherapy industry has continued to grow and expand. To date, there are more than 130 different types of therapy available although most have no formal theoretical structure or research to support them (Applebaum, 1982; Grunes, 1970;

Goldfried, 1981). Given the diversity among techniques and practitioners, psychologists are concerned that the public has and will continue to confuse those with psychotherapists with extensive training (e.g. the doctoral degree) with those who have no training at all. As a result, most states require psychologists to have licenses in order to call themselves this title (Kane, 1982; Phillips, 1982). The hope is that the public will learn to discriminate accurately among the numerous types of therapies available and that they will know that people calling themselves "psychologists" must hold specific credentials and abide by a professional code of ethics (Danish & Smyer, 1981; Kane, 1982; Wiens & Menne, 1981).

Such efforts have been necessary in order to counteract numerous claims and media portrayals (e.g. Gross, 1979; Tennov, 1975) which communicate a negative image of this profession. Basically, these claims (which have been made by psychologists and non-psychologists alike) distill into propositions that psychotherapists are ineffective (cf. Strupp & Hadley, 1979; Wilson, 1980), insincere and unstable (cf. Gross, 1962; 1979) and that they misuse their power by exploiting vulnerable patients, especially female ones (cf. Chesler, 1972; Tennov, 1975).

Identification of Psychology versus Psychiatry

The earliest survey conducted on the public's attitude towards psychology was reported in the American Psychologist in 1948 (Guest, 1948). "Relatively unskilled college students" from a market research class conducted 311 interviews with adults from their hometowns (various areas in New York, Pennsylvania, New Jersey, and Illinois). The questionnaire was divided into three parts. The first section consisted of multiple choice items and attempted to determine which of several professional persons (architect, chemist, engineer, psychiatrist, and psychologist) would be consulted for certain services. The second section consisted of several open-ended questions about the duties of psychologists and about the sources of information one would use to locate a psychologist. The final section consisted of a series of statements about psychologists and their qualifications. Finally, respondents were asked to differentiate between a psychologist and a psychiatrist.

The results of the survey revealed that the public neither knew very much about psychology nor regarded it as a particularly desirable profession. For example, a larger percentage of respondents indicated that they would consult either an engineer or an economist rather than a psychologist when asked "If you wanted help in choosing workers for some job, would you go to a(n)..."

Respondents also specifically indicated that they did not think highly of psychology as a profession. Nearly one third of the respondents said they would prefer that their children not pursue psychology as a profession. Similarly, a large proportion (40.2%) of the respondents said they would feel ill at ease in the presence of a psychologist even in a social situation. Nearly 40% of the respondents agreed with the statement "Psychologists as a group are more odd or unusual than chemists or engineers."

The study also indicated that respondents were aware of the clinical roles of psychologists but were unfamiliar with psychologists work in other fields such as business or industry. Finally, respondents made little or no distinctions between psychologists and psychiatrists and their respective responsibilities.

The roles of psychologists were also confused with those of psychiatrists in an informal study conducted of the 1955 convention of the American Psychological Association (Cohen & Weibe, 1955). Interviewers simply removed their APA badges and proceeded to ask service personal (waiters, bellhops, etc.) who the badge-wearing people were. Of the fifty-six people who responded, eighteen knew they were psychologists while fourteen others indicated they were psychiatrists. When respondents were asked what these badge-wearers did, nearly three-quarters of them indicated that they thought they worked as psychotherapists. One

chambermaid identified psychologists as those who work with "crazy people".

When fifty "Southern Negroes" (Grossack, 1954) of unspecified ages were asked questions about the general activities of psychologists, they, too, equated psychologists with psychiatrists. One respondent said: A psychologist is a man that studies the mind, you classify him as a physician because he can heal you mentally."

Over 50% of the respondents also reported that they perceived the psychologist as one who helps reduce racial tensions.

Nunally and Kitross (1958) assessed the public attitudes towards various mental health professionals using a semantic differential rating instrument. These researchers found that the public generally regarded all mental health professionals quite favorably. On the other hand, no attitudinal distinctions were made between the titles psychiatrist, psychologist, psychoanalyst, and research psychologist which suggests that the subjects may not have understood the distinctions between these professionals roles. In a similar study (McGuire & Borowy, 1979) highly favorable attitudes were also found. Taken together, these studies indicate that while respondents may value mental health professionals in general, they show no understanding of the precise and unique roles performed by

each type of mental health professional.

Piro (1976) examined the perceptions of certain helping professionals (e.g. nurses, clergymen, nonpsychiatric social workers, etc.) toward other mental health professionals, particularly psychiatrists and psychologists. Indeed, psychiatrists and psychologists were perceived differently in that psychiatrists were viewed as having greater ability to provide knowledge and expertise concerning problems of a "deep seated nature". Psychologists on the other hand, tended to be associated with more "intellectual cognitive problems through the use of learning techniques."

Other studies, however, show that some respondents are capable of making fairly accurate distinctions between the roles of psychologists and psychiatrists. In one study (Tallent & Reiss, 1959) undergraduate students were asked to indicate those statements on a thirty-three item form which pertained to psychologists, psychiatrists, neither of these professionals, or both of these professionals. Examples of some of these statements were "is a scientist and does research; does physical examinations; tells people what to do in order to make them more popular".

Contrary to the findings of the previous studies, these respondents seemed better informed about the roles of psychologists, although there was still some evidence of

confusion. While the majority of students (70%) were aware that psychiatrists hold an M.D. degree and that the degree for the psychologists is the Ph.D., 38% of the respondents reported that the psychiatrist possessed a Ph.D. and 22% reported that the psychiatrist has both degrees. In contrast, only 7% of the respondents believed that the psychologist has both graduate degrees. Nevertheless, the results indicate that these college students have a much broader view of the psychologists' role than other groups. For example, psychologists were seen in various roles including that of teacher, test developer, market researcher, and as an investigator of international tensions.

The results of another study (Murray, 1962) which used the identical method developed by Tallent and Reiss but with a slightly different subject population (college students and their friends) also demonstrated that "the public" was capable of distinguishing between the roles and qualifications of psychologists and psychiatrists. Few of the respondents thought that psychologists worked exclusively in mental health settings or dealt with only emotionally disturbed patients.

In a latter study (Thumin & Zebelman, 1967) on the public image of psychology versus psychiatry, telephone interviews were conducted with 400 respondents whose names were randomly selected from the St. Louis telephone

directory. One half of the respondents were asked whether they would be more apt to contact a psychologist or psychiatrist for specific reasons e.g., to determine I.Q. scores, to help with feelings of depression, to get a prescription for tranquilizers, etc. Subjects were also asked which of six professions -- surgery, engineering, law, dentistry, psychiatry, and psychology they would like to see their son enter.

The results indicated that respondents were able to distinguish between the professions of psychology and psychiatry in a fairly sophisticated manner. While psychiatrists were credited with helping people with emotional problems and with studying the mind, emotions, and personality, psychologists were more frequently associated with research and testing. Psychiatrists, on the whole, were more associated with medically-related tasks than were psychologists. Respondents also rated psychology as less desirable than surgery, engineering, psychiatry, law and dentistry, when asked about their professional preferences for their sons.

Despite methodological differences and a twenty year disparity in time, both the Guest (1948) study and the research conducted by Thumin and Zembelman (1967) found that psychologists ranked relatively low in professional status. The reasons for this, however, were not explored. It may be that the public perceives psychologists as having less

earning power than medical doctors or engineers. Alternatively, the public may hold certain negative stereotypes about psychologists and therefore denigrate the profession.

In a more recent study (Small & Gault, 1975) 360 Australians interviewed in a suburban shopping mall did not rate psychologists at the bottom of the professional hierarchy when traditional female occupations (school teacher, social worker) were added to the choice of professions. Still, psychology was not selected as the most desirable profession for women or for men. This suggests that the status of the occupation influences people's judgments on this issue.

Respondents also indicated that they would have preferred other professionals to psychologists for certain problems and tasks that are usually considered within the psychologist's domain. The researchers found that most respondents would have preferred a physician, clergyman or a social worker to a psychologist for help with feelings of depression. Respondents also indicated that they would have been just as likely to seek the advice of an accountant as a psychologist to help improve factory conditions. The meaning of these preferences, however, is not entirely clear. Perhaps the respondents were ignorant of the psychologist's role within these settings, or perhaps they considered it more socially desirable not to indicate

familiarity with the roles of psychologists.

In the second part of the survey, questionnaires about their attitudes towards psychology and psychologists were mailed to general practitioners, clergymen, secondary school teachers and a random group of people chosen from the telephone book. The rationale for selecting the specific professional groups was that they are often the "gatekeepers" between the public and mental health professionals. Participants were also asked to estimate the annual income of a psychologist, to name the professional body of psychologists in Australia, and to list the academic requirements for admittance to this profession.

Of the eighty respondents, three knew the name of the professional body for psychologists and ten were aware of the academic qualifications required for membership. One half of the subjects correctly estimated the annual income, and among those who were incorrect, the tendency was to overestimate rather than to underestimate it. Although there were few differences in the amount of information they held regarding the roles of psychologists, these professionals were significantly better informed than the general public.

The most recent study on the public's perception of psychology examined the perceptions of children (Dollinger & Thelen, 1978). Two surveys were conducted with a large

sample of white, middleclass, midwestern children in grades one through twelve. In the first study, children were asked what psychologists do, what kind of person they think is likely to become a psychologist, and what the differences were between a psychologist and a psychiatrist.

The researchers reported that children equate the profession of psychology with psychotherapy, although their tendency to cite research activities increased with age. Most questions in the survey, however, were geared towards the image of psychotherapy: e.g. "Does a psychologist need a couch to work with? or clinical psychologists help people with problems, what kinds of problems do they help people with?" Although knowledge about psychology increased with the age of the of the children, older children did not necessarily evaluate psychologists more positively than younger children. Older adolescents see more passive characteristics as more important for psychologists whereas younger children and younger adolescents cited more active traits like offering solutions to problems or intervening in arguments as important qualities for psychologists.

The second survey measured children's attraction towards psychology by asking independent ratings for each of twenty-five occupations including psychology. The results indicated that children who had been to a psychologist, who had participated in research or who had taken a psychology course did not express significantly more favorable

attitudes and attraction toward psychology than did those students who had no formal exposure to the profession.

Perhaps children who had some exposure to the profession were threatened by this association, causing them to react negatively to the profession as a whole. Children who have been exposed to psychologists may perceive this as having implications for their own mental-health since they generally appear to associate psychology as a profession with the treatment of emotional illnesses or of bizarre and unusual behaviors.

These studies suggest that the public routinely confuses psychology with the profession of psychiatry, and that the public perceptions are dominated by clinical imagery. While these perceptions are not entirely inaccurate since many psychologists (43%) are involved in clinical activities, which do in fact overlap with psychiatrists, there are many other functions performed by psychologists which lay outside of the therapeutic domain. In fact, most professional (e.g. Ph.D) psychologists who either teach or do research (53%) (Occupational Outlook Handbook) seem to go unrecognized by the public at large, which suggest that work done by these psychologists may be underutilized, unappreciated or both.

Although these findings may be biased since most of the studies were not designed to elicit broadly-based responses about the psychology profession, they nevertheless support the claims of many psychologists (cf. Bevan, 1982) that the public has a narrow understanding of the kinds of work psychologists do.

Let us now return to the negative assumptions about the psychology profession.

Questions to be examined in this study

Since many assumptions have been made about the public's image of psychology it seems reasonable to examine the accuracy of such assertions. First, what are the overall perceptions and images of psychology among our respondents? Second, how do the perceptions of psychology differ among the several groups studied? More specifically, to what extent are respondents' perceptions of psychology "simplistic, limited and grossly imbalanced" (Bevan, 1982)? To what extent are respondents dissatisfied with or hostile to psychology (Atkinson, 1977)? Do respondents perceive psychology as a meaningful and effective discipline (Elms, 1975, Miller, 1969, Nisbitt, 1981)? Are psychologists perceived as those who confirm what everybody already knows and if so, to what extent (Prewitt, 1981)? To what extent are psychologists perceived as having disengenuous motivations (Fishman & Neigher, 1982)? To what extent do

respondents perceive psychology as a scientific discipline (Proxmire, 1975; Reicken, 1981)? To what extent do respondents perceive psychology as a threatening source of information (Bazelton, 1982; Hatch, 1982)? What are respondents main views of research psychology? Are they primarily associated with electric shock and behavior control (Miller, 1969)? In terms of research methods in psychology, is the use of deception justifiable (Warwick, 1975)? To what extent are respondents capable of distinguishing the differences between psychology and psychiatry (e.g. Cohen & Weibe, 1955; Dollinger & Thelen, 1978; Grossack, 1954; Guest, 1948; Murray, 1962; Thumin & Zebelman, 1967)?

Chapter Three

Method

A questionnaire was designed to examine four groups perceptions of research psychology, psychotherapy and their general knowledge of the psychology profession.

The participants in this study were 227 persons who voluntarily completed a questionnaire about their perceptions of psychology and psychologists. The respondents were recruited for this study in one of two ways. The majority of respondents (n=170) responded to a questionnaire which was sent to them through the mail; 57 others were recruited in a shopping mall in Middletown Connecticut.

The mail survey. Approximately 660 questionnaires were mailed during the first week in December of 1982 to equal numbers of women and men in each of three distinct professions: psychology, "hard" science, and business. The potential respondents received an envelope which contained three items: (1) a cover letter which stated the purpose of the project and which reassured participants' confidentiality, (2) the survey questionnaire, and (3) a business reply envelope (See appendix A).

Names of psychology, business and science professionals were randomly selected from the 1982 directory of the American Psychological Association, and from current membership lists provided by The Lion's Club of New York (a co-ed business organization) and The New York Academy of Sciences. Care was taken to include from the Academy of Sciences' list only the names of those identified as "hard" scientists (e.g. chemists, physicists), so that no psychologists or "soft" scientists would be included in the science sample.

The shopping mall sample. Respondents from the general public were solicited in a shopping mall located in Middletown Connecticut. Middletown is a middle-class, medium-sized town (population 42,000) and is the home of Wesleyan University. A sign which read: "FREE LOTTERY TICKET IN EXCHANGE FOR YOUR OPINIONS ABOUT PSYCHOLOGY--WIN UP TO A MILLION DOLLARS" served as the incentive. Interested respondents who approached the researcher were told that in order to qualify for the lottery ticket they would have to complete a questionnaire about their perceptions of psychology which would take them about fifteen to twenty minutes and that their answers to the questionnaire would be confidential--names and addresses were necessary only if the respondents wished to receive a copy of the results.

The survey questionnaire.

Measures of respondents' perceptions of psychology and psychologists were obtained from a survey developed for this study. Items were developed from assumptions about psychology's public image discussed in the review of the literature. All questions were pretested for clarity during the summer of 1982, and were reworded, revised or deleted whenever this was appropriate. The survey consisted of seventy-seven items and was divided into six sections: (1) knowledge about the profession of psychology; (2) perceptions and evaluation of the psychology profession; (3) perceptions of psychotherapists; (4) perceptions of research psychology; (5) sources of knowledge and information about psychology; (6) demographic information (see appendix B).

Section One: Knowledge about the profession of psychology

Respondents were asked to indicate on a six-point scale the extent to which they agreed with ten objective statements about the psychology profession. The purpose of this was three-fold: (1) to determine whether respondents could accurately distinguish between the professions of psychology and psychiatry; (2) to determine whether respondents were aware that psychologists perform services other than psychotherapy; and (3) to determine whether

respondents were aware of the ethical responsibilities of psychologists.

Section Two: Perceptions and evaluation of the psychology profession

In order to determine whether respondents have a particular image or association to the word "psychology", they were instructed to complete three sentence stubs which were used to gauge their overall perceptions of the psychology profession. They were asked to indicate the "best" and the "worst" that could be said about psychology. No reference was made either to research or clinical psychology.

Respondents were also asked to indicate on a five point scale how favorable or unfavorable their overall feelings were towards the psychology profession.

Section Three: Perceptions of psychotherapists.

Respondents were asked to indicate on a six-point scale the extent to which they agreed with ten attitudinal statements about psychotherapists. The purpose of these statements was to determine whether respondents hold a generally positive or negative view of psychotherapists; to determine what motives respondents attribute to psychotherapists; and to determine how sincere and effective psychotherapists are in their efforts to help

those who seek it.

Section four: Perceptions of research psychology

The section was divided into two parts. The first part instructed respondents to complete two sentence-stubs, beginning with the following phrase: (1) When I hear the phrase "psychology experiment," I think of ... and (2) "The first psychology experiment that comes to my mind is

The purpose of the stubs was to determine whether respondents have any image of research psychology and to find out what experiments or scientific events are foremost in their minds.

Respondents were also asked to indicate the extent to which they agreed with ten attitudinal statements about research psychology. Two items about research methods in psychology were also included in order to understand more fully how respondents perceive two (professionally) controversial techniques employed in psychological research.

Section Five: Sources of knowledge and information about psychology

In order to gain an understanding of where respondents obtain most of their information about psychology, they were asked to rank the activities that have been the most influential to them in terms of acquiring knowledge about psychology. These activities included taking psychology

courses, reading books and seeing movies.

Respondents were also asked if they had ever participated in a psychology experiment or been in psychotherapy. If the respondents had experience with either activity, they were asked to evaluate the experiences by indicating how worthwhile the experience of participating in a psychology experiment or in psychotherapy had been for them.

If respondents had not participated in a research study or had not been in psychotherapy, they were asked to indicate how willing they would be to participate in an experiment or how likely they would be to seek out psychotherapy. Respondents were also asked to indicate how many psychology classes they had ever taken, whether psychology had been either their major or minor in college, and whether they had taken any graduate psychology courses.

Section Six: Demographic Information

Respondents were asked for background information, including age, gender, marital status, highest educational degree, occupation and income. Finally, they were asked to indicate whether or not they wanted to receive a copy of the results of this study.

The ideal versus the practical sample

The limitations of this method merits examination. The fact that these respondents are entirely self-selected raises the question of whether we can accurately extrapolate the results of the study to larger populations. It also leaves open the question of whether the perceptions of respondents are different than those of non-respondents. Will these results be representative or will they be skewed? If they are skewed, in what direction -- towards more positive or more negative attitudes? Given the nature of this design, there is no way to answer these important questions. The only way to overcome this sampling problem would be to use a random sample design which would eliminate the self-selection in the response process. Unfortunately, such a method is beyond the resources of this study.

Chapter Four

Results

Characteristics of the respondents

A total of 227 respondents (109 males and 118 females) participated in this study on the public's perception of psychology. The overall response rate for the mail survey was 25% (n = 170) -- a rate slightly lower than expected in mail surveys of this kind (Dillman, 1978). Of the two hundred twenty questionnaires mailed to equal numbers of females and males within each professional group, 30% (n = 66) were returned by psychologists, 22% (n = 50) were returned by scientists, and 24% (n = 54) were returned by business people (see table 1). A chi square test revealed no significant differences in the return rate among the three groups of respondents.

Table 1

Sampling outcome: Return rate of 660 questionnaires sent to equal numbers of men and women

Group	% Returned		
	Female	Male	Total
Psychologists (n)	50% (33)	50% (33)	30% (66)
Scientists (n)	50% (25)	50% (25)	22% (50)
Business (n)	35.2 (19)	64.8 (35)	24% (54)
Total (n)	45.3 (77)	54.7 (93)	25% (170)

The shoppers include 57 (32 males and 25 females) respondents all of whom completed the survey questionnaire in the presence of this researcher in a Connecticut shopping mall. All questionnaires were returned or collected between December 1982 and January 1983.

Sample characteristics

Males and females in this survey range between 20 and 70 years of age. Most respondents are between the ages of 30 and 39 (29.1%), report being married (59.7%), and having an income between \$20,000 to \$39,000 (32%) or an income over \$60,000 (n=36%).

The occupations of the professional groups are self-evident. Among the shopping mall sample were college professors, salespeople, lawyers, doctors, college students, secretaries, computer programmers, and housewives. Several respondents indicated they were unemployed.

The majority of the psychologists (89.4%) and hard scientists (73.4%) have Ph.D degrees while the majority of business people have Master's Degree. 35.8% of the shoppers had a high school diploma and 40.4% a college degree. Over half of the non-psychologists have taken at least one psychology course and nearly half (49.7%) of the non-psychologists claimed psychology as their major or minor during college.

Over one third of the respondents (39.1%) have had at least some exposure to psychotherapy. Of these respondents, 43% were psychologists 10.5% are scientists 20.9% were business people and 25.6% were shoppers. Over half of the respondents (52%) have participated in a psychology experiment. Most psychologists (49.2%) have participated in experiments while less than one quarter of the scientists (19.5%), business people (16.1%) and the shoppers (15.3%) indicated that they had been in some type of psychological experiment.

Overall, taking psychology courses was the activity that respondents (36.1%) reported as being most influential in terms of their knowledge about psychology. Psychology courses were also the most important source of information for psychologists (41.5%), scientists (39.0%), and shoppers (38.0%). Business people, however, indicated that they learned the most about psychology from friends or family members who are psychologists (35.6%). Reading psychology books was the next most influential source of information about psychology for psychologists (24.6%), scientists (21.4%), and business people (23.9%). For shoppers, the experience of being in psychotherapy (25.0%) was the activity indicated as second most influential in terms of their knowledge and information about psychology.

What's best about psychology?

A total of 196 subjects responded to the open-ended statement: "In my opinion, the best that can be said about psychology is ...". Although some subjects (n = 47) gave more than one answer, only their first response to the statement was examined. This was necessary because the analysis required independence of categories. Therefore, only one response per subject could be used in the calculations. (This procedure of examining subject's first response only was followed for all open-ended measures.)

The researcher formulated two categories into which the responses could be classified. Two independent judges reached 96% agreement in classifying the responses into these categories. The categories were: (a) Practical-helpful and (b) Scientific. Practical-helpful responses are those which concern the benefits of psychological insights to individuals. Such responses include statements such as "it [psychology] makes it possible for people to live better lives through its understanding of human behavior," and "it is helpful to people with emotional and behavioral problems". Scientific responses include statements which deal with psychology's systematic and scientific basis. This category includes responses such as "it is a serious scientific discipline," and "it is a noble attempt to discover the causes of human

behavior through scientific methods." Table 2 shows the percentage of responses classified into each category for the four groups of respondents. Although the majority of respondents (59.2%) associate the best that could said about psychology with the profession's ability to help those who suffer, this response was not uniform for all of the groups. A log linear analysis indicated highly significant overall differences among the groups ($\chi^2 = 21.76$, $df = 3$, $p < .001$). Significantly more psychologists and scientists associate "the best" about psychology with the scientific and research accomplishments of the profession than do business people and shoppers. ($\chi^2 = 2.0$, $df = 2$, $p < .05$). These two groups are more likely to associate "the best" about "psychology" with its therapeutic potential.

Table 2

What's best about psychology by group

	% Helpful	Scientific	Total
Psychologists (n)	41.9 (26)	58.1 (36)	31.6* (62)
Scientists (n)	46.2 (18)	53.8 (21)	19.9* (39)
Business (n)	75.0 (36)	25.0 (12)	24.5 (48)
Shoppers (n)	76.6 (36)	23.4 (11)	24.0 (47)
Total (n)	59.2 (116)	40.8 (80)	100.0 (196)

*Psychologists and scientists were significantly more likely to associate the best about psychology with scientific achievements than were business people and shoppers ($p < .05$).

What's worst about psychology?

A total of 180 participants responded to the open-ended statement: "In my opinion, the worst that can be said about psychology is..." Two categories emerged which contrast with the categories describing "the best that could be said about psychology ..." They are (a) Unhelpful-harmful and (b) Unscientific. Unhelpful -harmful includes any responses that relate to the negative effects of psychology, and of psychotherapy in particular. Examples include "psychologists intervene in a destructive way as they play God," "it makes people more mixed-up," "it takes lots of money to achieve no effects on a client's personal growth", and "it is harmful and exploitative to uniformed people".

Unscientific responses include any statements which deal with the inexact, unscientific, and unsystematic nature of psychology. Answers include: "it's [psychology] a pseudoscience parading as a science," "its practitioners are muddled, dogmatic, and unscientific," "it's research is trivial and its conclusions are arbitrary and superficial," and "its practitioners draw more far reaching conclusions than are warranted by the data collected." Two independent judges reached 95% agreement in classifying responses into these two categories.

Table 3 shows the percentage of responses classified in each category for the four groups of respondents. Over three quarters of the respondents (76.1%) associate the negative aspects of psychology with the profession's unscientific foundations, although a log linear analysis showed significant differences among the four groups of respondents ($\chi^2 = 10.99$, $df = 3$, $p < .01$). Significantly more psychologists and scientists indicate that "the worst" about psychology concerns its unscientific and unsystematic basis ($\chi^2 = 1.33$, $df = 2$, $p < .05$). Business people and shoppers are more likely to respond to this statement in terms of the harmful and negative effects of psychotherapy. It would seem, therefore, that these two groups are more generally attuned to the therapeutic image of psychology, both in its positive and negative aspects.

Table 3

What's worst about psychology by group

Group	% Harmful	Unscient.	Total
Psychologists (n)	18.5 (10)	81.5 (44)	30.0* (54)
Scientists (n)	11.6 (5)	88.4 (38)	23.9* (43)
Business (n)	31.7 (13)	68.3 (28)	22.8 (41)
Shoppers (n)	35.7 (15)	64.3 (27)	23.3 (42)
Total (n)	23.9 (43)	76.1 (137)	100.0 (180)

*Psychologists and scientists were significantly more likely to answer this statement in terms of psychology's unscientific basis than were business people and shoppers ($p < .05$).

Knowledge about the psychology profession

The responses to ten factual statements about psychology were averaged for all respondents as well as for each group. All statements were coded in the same direction (e.g. a response of 1 (one) always indicated the correct answer; a response of 5, the incorrect answer). Given this organization, the lower the mean score, the more knowledge about psychology, the higher the mean score the less knowledge about psychology. Mean scores are presented in Table 4. Overall, respondents indicate considerably more knowledge about the psychology profession than assumed by Bevan (1982) (as evidenced by the relatively low mean scores for all of the groups on these statements). Understandably,

psychologists demonstrate the most accurate knowledge of their profession and were followed by shoppers, business people and scientists. Results of a oneway analysis of variance (Knowledge by group) indicated overall differences among the groups ($F = 29.59$, $df = 3/223$, $p < .001$). Psychologists have significantly more knowledge about the profession than do the three other groups according to a Scheffe post hoc test of significance ($p < .01$). Because it was so obvious that psychologists would have the most knowledge about their profession, they were omitted from a subsequent one way analysis of variance. This analysis revealed that business people and scientists had significantly less knowledge about the psychology profession than do the shoppers ($p < .05$).

Table 4
Means and standard deviation scores on
knowledge statements about psychology by group

Group	Mean	Standard Deviation
Psychologists	1.53	0.33
Shoppers	2.18	0.57
Business	2.17*	0.44
Scientists	2.15*	0.50
Total Average	2.19	0.54

*Indicates significant differences between business people and scientists and shoppers when psychologists were omitted from the analysis $p < .05$.

Separate analyses of variance and Scheffe post hoc tests were also run on each statement. Only non-psychologists were included in these calculations. No

significant differences occurred among the groups on seven statements (see table 5) of the ten statements concerning knowledge about psychology. On the whole, most respondents are capable of distinguishing the differences between psychologists and psychiatrists, although some degree of confusion does exist. For example, nearly three quarters of the participants agree with the statement: "In order to become a psychologist, a student must investigate his or her own emotional problems". Given that participants are able to distinguish fairly well between the professions on other statements, perhaps the wording of this statement was misleading. Some clinical psychology students, in fact, are required to be in psychotherapy in order to qualify for their degrees. Alternatively, the high percentage of agreement among respondents may also reflect the general tendency -- especially among non-psychologists -- to associate the profession with clinical practice. On the otherhand, respondents do not have totally accurate perceptions of the distinctions between psychiatry and psychology: approximately one third of the non-psychologists did not know that psychologists cannot prescribe drugs to patients, and that many psychologists do not practice psychotherapy, In terms of specific professional regulations, most respondents (71.7%) are aware that psychologists can suffer professional penalties if they act unethically against patients.

Table 5

Percentage who agree to knowledge statements by group

% agree strongly/agree somewhat

Group (n)	Psych.* (66)	Scien. (49)	Busi. (54)	Shoppers (57)	Total (226)
In order to become a psychologist, a student must investigate her/his own emotional problems.	42.4 (39)	70.0 (35)	79.6 (43)	85.9 (32)	73.1 (166)
Psychologists study both normal and abnormal behavior.	98.5 (65)	93.9 (46)	90.8 (49)	93.0 (54)	94.3 (213)
Psychologists cannot prescribe drugs to their patients.	92.4 (61)	71.4 (35)	66.1 (35)	75.4 (44)	72.8 (174)
In practice, there is no difference between a psychologist and a psychiatrist.	18.2 (12)	8.0 (4)	7.5 (4)	8.8 (5)	11.0 (25)
Many psychologists do not practice psychotherapy.	92.4 (61)	67.3 (33)	59.2 (32)	57.9 (33)	70.3 (159)
Psychologists are permitted to have sex with their patients without professional penalty.	1.5 (1)	2.0 (1)	11.2 (6)	8.8 (5)	5.8 (13)
In order to become a psychologist, one must work in a hospital.	3.0 (2)	8.0 (4)	14.8 (8)	28.0 (16)	13.2 (30)

*Although psychologists were not included in the post-hoc tests they are included here for informational purposes.

The results of the Scheffe post-hoc tests also indicated significant differences among non-psychologists on three factual statements concerning: (a) professional licensing ($F = 5.54$, $df = 2/159$, $p < .004$), (b) I.Q. tests ($F = 4.96$, $df = 2/158$, $p < .008$), and (c) psychology's formal code of ethics ($F = 11.51$, $df = 2/157$, $p < .001$). In spite of the fact that group differences were found on these statements, over 80% of the respondents indicate some awareness that psychologists need licenses to call themselves psychologists (see table 6) and that they are bound by a formal code of professional ethics (see table 7). Significantly fewer scientists, however, responded correctly (e.g. by indicating "agree strongly" or "agree somewhat") to these statement concerning the professional status of psychology ($p < .01$). It seems that our sample of scientists are more unaware in general, that psychologists are professionals with specialized training and particular responsibilities which distinguish them from other people who may also work in the helping professions.

Table 6
 "In some states, it is legally required
 that a person be licensed in order to
 call him/herself a psychologist" by group.

Group	% Agre. Str	Agre. Smwh	Nei.	Disag. Smwh	Disag. Str	No opi.	Total
Scien. (n)	55.1 (27)	8.2 (4)	8.2 (4)	6.1 (3)	4.1 (2)	18.4 (9)	21.7* (49)
Busin. (n)	72.2 (39)	16.7 (9)	3.7 (2)	3.7 (2)	1.9 (1)	1.9 (1)	23.9 (54)
Shop. (n)	75.4 (43)	5.3 (3)	5.3 (3)	3.5 (2)	3.5 (2)	7.0 (4)	25.2 (57)
Total (n)	72.6 (164)	8.8 (20)	4.0 (9)	3.5 (8)	3.5 (8)	7.5 (17)	100.0 (226)

*Indicates a significant difference between scientists and business people ($p < .01$).

Table 7
 "Psychologists like lawyers and doctors
 are bound by a formal code of professional
 ethics" by group.

Group	%Agre. Str	Agre. Smwh	Nei.	Disag. Smwh	Disag. Str	No opi.	Total
Scien. (n)	38.8 (19)	18.4 (9)	2.0 (1)	12.2 (6)	12.2 (6)	16.3 (8)	21.7* (49)
Busin. (n)	51.9 (28)	25.9 (14)	7.4 (4)	3.7 (2)	5.6 (3)	5.6 (3)	23.9 (54)
Shop. (n)	75.4 (43)	15.8 (9)	1.8 (1)	1.8 (1)	3.5 (2)	1.8 (1)	25.2 (57)
Total (n)	67.3 (152)	15.0 (34)	2.7 (6)	4.4 (10)	5.3 (12)	5.3 (12)	100.0 (226)

*Indicates significant differences between scientists and the two other groups of nonpsychologists ($p < .01$).

Most participants (66.8%) are aware that all psychologists are not necessarily qualified to administer intelligence tests. The shoppers, however, seem less aware of this than scientists ($p < .05$). Nearly half of the shoppers (46.9%) agreed (incorrectly) with the statement: "All psychologists are qualified to give intelligence tests". This suggests that the shoppers may have a somewhat limited view of psychologists skills and talents and that their knowledge about the psychology profession may be an skewed in a postive direction. Table 8 shows the percentages and numbers of scientists, business people, and shoppers who responded to this statement.

Table 8
 "All psychologists are qualified
 to give I.Q. test" by group

	% Agre. Str.	Agre. Smwh.	Nei.	Disag. Smwh.	Disag. Str.	No opi.	Total
Scien. (n)	I 2.0 I (1)	I 4.1 I (2)	I 16.3 I (8)	I 18.4 I (9)	I 46.9 I (23)	I 12.2 I (6)	I 21.7 I (49)
Busin. (n)	I 3.7 I (2)	I 13.0 I (7)	I 9.3 I (5)	I 33.3 I (18)	I 29.6 I (16)	I 11.1 I (6)	I 23.9 I (54)
Shop. (n)	I 12.3 I (7)	I 24.6 I (14)	I 10.5 I (6)	I 17.5 I (10)	I 22.8 I (13)	I 12.3 I (7)	I 25.2* I (57)
Total (n)	4.9 (11)	11.5 (26)	8.4 (19)	18.6 (42)	48.2 (109)	8.4 (19)	100.0 (226)

*Indicates significant differences between shoppers and scientists ($p < .05$).

Perceptions of research psychology

Three different measures were obtained in order to get an overall picture of respondents perceptions of psychological research. The first concerned respondents images of and associations to psychology experiments, the second with respondent's descriptions and evaluations of research experience and the third with their perceptions of psychological research.

Respondents images and associations to experiments

Respondents were asked to indicate (1) what comes to mind when they hear the phrase "psychology experiment" and (2) the first psychology experiment that comes to their mind. Since there was considerable overlap to these items, they were collapsed and treated as one. Respondents gave a total of 269 answers which were then classified into two categories. The first category deals with names of psychologists: Respondents were most likely to name either Ivan Pavlov (57.8%), Stanley Milgram (30.3%) or B.F. Skinner (11.9%). Sigmund Freud was only mentioned once, as was Leon Festinger, Philip Zimbardo, John Watson, Jean Piaget, Solomon Asch, and Gustav Fechner. Among psychologists, Milgram was mentioned most often. whereas Pavlov was named most often among non-psychologists (See table 9). Perhaps Milgram's name was mentioned more often

among psychologists because of the controversy his obedience experiments have generated within the profession. It does not appear, however, that that the controversy has extended much beyond the discipline since only 16.2% of the non-psychologists mentioned his name. It is interesting to note that the best known psychologists -- Pavlov and Skinner -- are among the eminent behaviorists. The reason why Freud is underrepresented may be because people do not associate him with psychology experiments.

Table 9
Names associated with psycholgy experiments by group

	% Pavlov	Milgram	Skinner	Total
Psychologists (n)	9.6 (13)	14.1 (19)	2.2 (3)	25.9 (35)
Scientists (n)	16.3 (22)	3.7 (5)	3.7 (5)	23.7 (32)
Business (n)	16.3 (22)	4.4 (6)	3.0 (4)	23.7 (32)
Shoppers (n)	15.6 (21)	8.1 (11)	3.0 (4)	26.7 (36)
Total (n)	57.8 (78)	30.3 (41)	11.9 (16)	100.0 (135)

The second category deals with descriptions and aspects of experimentation (see table 9a). Most of the respondents associate experiments with rats and mazes (51.4%), or words that describe the nature of experiments (33.8%) such as "control groups", "variables", and "laboratories", while a

few others wrote "manipulations" (5.6%), "deception" (4.9%) and "electric shocks" (4.2%). In view of psychologists' preoccupation with the effect of electric shocks and deception on non-psychologist's image of psychology, it is interesting to note that these techniques are mentioned among only a small proportion of psychologists and non-psychologists alike.

Table 9a

Technical associations to experiments by group

	% Rats & Mazes	Des. of Exps	Electric Shocks	Manipulation	Decep- tion	Total
Psych. (n)	11.3 (16)	15.5 (22)	0.0 (0)	1.4 (2)	1.4 (2)	29.6 (42)
Scien. (n)	17.6 (25)	3.5 (5)	1.4 (2)	1.4 (2)	0.7 (1)	24.7 (35)
Busin. (n)	9.9 (14)	8.5 (12)	2.1 (3)	1.4 (2)	0.0 (0)	21.8 (31)
Shop. (n)	12.7 (18)	6.3 (9)	0.7 (1)	1.4 (2)	2.8 (4)	23.9 (34)
Total (n)	51.4 (73)	33.8 (48)	4.2 (6)	5.6 (8)	4.9 (7)	100.0 (142)

Evaluations of research experience

Over half of the respondents (52.2%) indicate that they had participated in a psychology experiment. Understandably, most of the psychologists (87.9%) report having been in at least one research study. Nearly half of

the scientists (46.0%) in contrast to approximately one third of the business people (35.2%) and shoppers (32.1%) indicate having participated in a research study.

Respondents (N = 102) then explained what the experiment was about and what they did. Perception and learning experiments (N = 42), social psychology experiments (N = 29) questionnaire studies (N = 14), personality and I.Q. tests (N = 7) and EEG studies (N = 3) were the types of studies mentioned. Nearly one third (29.4%) of the respondents indicated that they could not recall the what the experiment was about.

Respondents were then asked to indicate how worthwhile this experience had been for them. Over half (52%) of those who had participated in an experiment indicated that this was either an "extremely worthwhile" or "somewhat worthwhile" experience and a third of the respondents (30.1%) indicated that their experience was neither worthwhile nor worthless. 13.0% of the respondents indicated that their experience was somewhat worthless or entirely worthless (4.9%). An analysis of variance indicated no overall significant differences among the four groups.

Respondents who had never participated in an experiment were asked to indicate how willing they would be to do so. About 70% of all respondents indicate a willingness to serve as research participants. Highly significant overall differences were found, however, among the four groups ($F = 5.01$, $df = 3/112$, $p < .002$). Scientists indicate that they would be more unwilling than shoppers to participate in a psychology experiment ($p < .05$) (See Table 10). This finding seems to be consistent with scientist's negative view of research psychology, in general.

Table 10

Percentage willing to participate in a psychology experiment by group

Group	% Extrem. willing	Smwh. willing	Neither	Smwh. Unwill.	Extrem. Unwill.	Total
Psych. (n)	16.7 (2)	66.7 (8)	16.7 (2)	0.0 (0)	0.0 (0)	10.3 (12)
Scien. (n)	6.5 (2)	25.8 (8)	29.0 (9)	25.8 (8)	12.9 (4)	26.7* (31)
Busin. (n)	6.7 (2)	46.7 (14)	23.3 (7)	10.0 (3)	13.3 (4)	25.9 (30)
Shop. (n)	30.2 (13)	53.5 (23)	2.3 (1)	4.7 (2)	9.3 (4)	37.1 (43)
Total (n)	16.4 (19)	45.7 (53)	16.4 (19)	11.1 (13)	10.3 (12)	100.0 (116)

* Indicates significant differences between scientists and shoppers ($p < .05$).

Attitudes towards research

The responses to the ten subjective statements about research psychology were averaged for each group of respondents. Means and standard deviations are presented in Table 11. All statements were coded in the same direction so that a response of 1 or 2 always indicated positive perceptions and a response of 4 or 5, negative perceptions. On the whole, the respondents indicate fairly positive attitudes towards research psychology as evidenced by the overall low mean scores. Nevertheless, highly significant overall differences among the groups were found ($F = 12.37$ $df = 3/223$, $p < .001$). A Scheffe post hoc test revealed that business people and scientists had significantly less positive attitudes toward research psychology than psychologists ($p < .01$) and that business people had significantly less positive attitudes towards research than did shoppers ($p < .01$).

When a separate oneway analysis was conducted without psychologists, overall significance was also achieved within the three remaining groups (2,158 $F = 8.2$ $p < .001$). A post hoc Scheffe test indicated that business people had significantly less positive attitudes towards research than did the shoppers ($p < .01$).

Table 11

Mean and standard deviation scores
on attitudes towards research by group

Group	Mean	Standard Deviation
Psychologists	2.22	0.57
Shoppers	2.36	0.57
Scientists	2.65*	0.57
Business People	2.77* **	0.46
Total Average	2.48	0.59

*Indicates significant differences between
scientists, business people and psychologists
 $p < .01$.

** Indicates significant differences between
business people and the shoppers.

Separate oneway analyses of variance were also run on each statement. No significant differences among the groups were found on four of the ten statements concerning their perceptions of psychotherapists (See table 12).

Respondents, overall, seem to believe that psychological research is relevant, beneficial and significant, thereby contradicting assumptions made by Proxmire and others that most people are dissatisfied with the practical contribution of social science research: nearly all of the respondents agree (91.6%) that insights derived from psychology experiments offer benefits to humanity. Concomitantly, only a small percentage of respondents (16.3%) agree that results of psychology experiments confirm what everybody already knows and an even smaller percent (8.3%) agree that the research psychologists conduct has no relevance to problems in the real world. Similarly, very few respondents (12.8%)

agree that psychological knowledge about humans is usually based on research with rats.

Table 12

Percentage who agree to research statements by group

% agree strongly/agree somewhat

	Psych. (66)	Scien. (50)	Busin. (54)	Shoppers (57)	Total (227)
Results of psychology experiments confirm what everybody already knows.	18.2 (12)	24.0 (12)	14.8 (8)	8.8 (5)	16.3 (37)
Insights derived from psychology experiments can offer benefits to humanity.	95.4 (63)	90.0 (45)	88.9 (48)	97.6 (52)	91.6 (208)
Psychological knowledge about humans is usually based on research with rats.	4.5 (3)	12.0 (6)	18.6 (10)	17.5 (10)	12.8 (29)
The research psychologists conduct has no relevance to problems in the real world.	9.1 (6)	12.0 (6)	5.6 (3)	7.0 (4)	8.3 (19)

Significant differences were found among groups of respondents on statements relating to two aspects of research psychology. The first aspect concerns the overall value of research and the second deals with specific experimental issues.

Value of psychological research

Differences among the groups of respondents were found on three statements concerning (a) the scientific nature of psychology experiments ($F = 4.61$, $df = 3/223$, $p < .05$), (b) financial support for psychological research ($F = 20.3$, $df = 3/223$, $p < .001$), and (c) the trivial nature of psychological research ($F = 5.21$, $df = 3/223$, $p < .001$).

The results show that the respondents are about evenly split on whether "findings in psychology are just as scientific as findings in chemistry". About half agree (47.6%) with this statement while the other half disagree (47.1%). Respondents are more decisive on the issue of whether "more tax dollars should be devoted to psychological research". About half agree (52.4%) while only 19.8% disagree. Scientists and business people, however, are less likely to agree with these statements than psychologists ($p < .05$). Business people may not judge research as worthy of grant money because of their hard-headed approach to money. Scientists, on the other hand, are in direct competition with these funds and therefore may view their own discipline as more worthy of support. In addition, since scientists are very critical about the scientific nature of psychology, they may want to withhold tax monies on this basis.

Table 13

"Findings in psychology are just as scientific
as findings in chemistry" by group

	%Agree Str	Agree Smwh	Nagree Disagr	Disagr Smwh	Disagr Str	No Opi	Total
Psych. (n)	19.7 (13)	39.4 (26)	3.0 (2)	22.7 (15)	15.2 (10)	0.0 (0)	29.1 (66)
Scien. (n)	12.0 (6)	20.0 (10)	6.0 (3)	26.0 (13)	34.0 (17)	2.0 (1)	22.0* (50)
Busin. (n)	9.3 (5)	19.6 (16)	1.9 (1)	25.9 (14)	31.5 (17)	1.9 (1)	23.8* (54)
Shop. (n)	28.1 (16)	28.1 (16)	3.5 (2)	19.3 (11)	17.5 (10)	3.5 (2)	15.1 (57)
Total	17.6 (40)	30.0 (68)	3.5 (8)	23.3 (53)	23.8 (54)	1.8 (4)	100.0 (227)

Table 13a

"More tax dollars should be devoted to
psychological research" by group

	%Agree Str	Agree Swh	N Agree Disagr	Disagr Smwh	Disagr Strg	No Opin	Total
Psych. (n)	37.9 (25)	39.4 (26)	12.1 (8)	7.6 (5)	1.5 (1)	1.5 (1)	29.1 (66)
Scien. (n)	10.0 (5)	22.0 (11)	44.0 (22)	10.0 (5)	12.0 (6)	2.0 (1)	22.0* (50)
Busin. (n)	1.9 (1)	22.2 (12)	31.5 (17)	20.4 (11)	11.1 (6)	13.0 (7)	23.8* (54)
Shop. (n)	45.6 (26)	22.8 (13)	12.3 (7)	12.3 (7)	7.0 (4)	0.0 (0)	25.1 (57)
Total	25.1 (57)	27.3 (62)	23.8 (54)	12.3 (28)	7.5 (17)	4.0 (9)	100.0 (227)

*Indicates significant differences between scientists,
business people and psychologists ($p < .05$).

Unexpected findings occurred with regard to the extent to which respondents agree with the statement: "Research psychologists usually study issues that are trivial". Overall, 20.2% of the respondents agree that psychologists study trivial issues, while 60.0% disagree. Psychologists and scientists, however, are significantly more likely to agree with this assertion than were the shoppers ($p < .05$). It's unclear whether the shopper's high level of disagreement with this statement is due to their unfamiliarity with the issues psychologists study or whether it indeed reflects their true beliefs. On the other hand, psychologists' relatively high level of agreement may reflect a general sense of dissatisfaction among practitioners regarding their overall contribution to issues of social importance.

Table 14

"Research psychologists usually study trivial issues" by group.

% of agreement

Group	% Agree Str.	Agree Smwh.	Neither	Disagr. Smwh.	Disagr. Str.	Total
Psych.	1.5	30.3	12.1	30.3	25.8	29.1*
(n)	(1)	(20)	(8)	(20)	(17)	(66)
Scien.	8.0	20.0	16.0	40.0	16.0	22.0*
(n)	(4)	(10)	(8)	(20)	(8)	(50)
Busin.	0.0	9.3	37.0	40.7	13.0	23.8
(n)	(0)	(5)	(20)	(22)	(7)	(54)
Shop.	1.8	8.8	15.8	22.8	50.9	25.1
(n)	(1)	(5)	(9)	(13)	(29)	(57)
Total	2.6	17.6	19.8	33.0	26.9	100.0
(n)	(6)	(40)	(45)	(75)	(61)	(227)

*Indicates that psychologists and scientists were significantly more likely to agree with this statement than were the shoppers ($p < .05$).

Experimental issues

Differences among the groups of responses also occurred on three statements (see table 15) dealing with (a) the sensitivity of psychologists to the needs of research participants ($F = 4.65$, $df = 3/223$, $p < .003$), (b) the acceptability of delivering harmless shocks ($F = 3.72$, $df = 3/223$, $p < .01$) and (c) the justifiability of concealing research aims to participants ($F = 4.61$, $df = 3/223$, $p = .003$).

Less than half of the participants agree that it is justifiable for psychologists to use either harmless shocks (36.5%) or deception (48.9%) in psychological research. The shoppers, however, are significantly less likely to agree with psychologists ($p < .05$) on these two research issues. So while respondents do not thoroughly reject such techniques as Kelman (1967) and Warwick (1975) have suggested, they do not overwhelmingly support them either.

Most respondents (54.6%) agree that psychologists are usually sensitive to those who participate in their research, although this was not the case for all of the groups. Significantly fewer scientists and business people agree with this assertion ($p < .05$). This finding is consistent with scientist's and business people's negative attitudes towards the scientific status of research psychology and towards its overall value in general.

Table 15

Percentage of agreement to experimental issues by group

	% agree strongly/agree somewhat				
	Psych. (66)	Scien. (50)	Busin. (54)	Shoppers (57)	Total (227)
In the pursuit of knowledge it is okay for psychologists to deliver harmless shocks.	44.0 (31)	46.0 (23)	27.8 (15)	28.1* (16)	36.5 (83)
Psychological research which involves concealing true aims to partic. is justifiable.	63.7 (42)	46.0 (23)	44.5 (24)	38.6* (22)	48.9 (111)
*Shoppers were significantly less likely to agree with psychologists on these two statements (p < .05)					
Psychologists are usually sensitive to the needs of those who participate in their research.	68.2 (45)	50.0* (25)	38.9* (21)	57.9 (33)	54.6 (124)
*Significantly fewer scientists and business people agree with this statement than do psychologists (p < .05).					

Perceptions of psychotherapy and psychotherapists

Respondents perceptions and evaluations of psychology's clinical aspects were evaluated in two ways. First, respondents were asked to describe their psychotherapy experience or to assess the likelihood of entering psychotherapy. Second, respondents indicated the extent to which they agree with specific statements concerning the

motivations and effectiveness of psychotherapists.

Respondents personal evaluations of psychotherapy

Over one third (39.1%) of the sample indicate that they have been in some type of psychotherapy. More psychologists (57.8%) than scientists (18.8%), business people (34.6%) and shoppers (39.3%) stated they have been in psychotherapy. No differences were found between the groups on their overall evaluation of how helpful the therapeutic experience had been. The majority (88.9%) of respondents, regardless of group affiliation, report that psychotherapy was either extremely helpful (52.2%) or somewhat helpful (36.7%).

On the otherhand, overall significant differences were found among those who had never been in therapy and who were then asked how likely it would be for them to "seek out psychotherapy should emotional problems develop?" ($F = 5.43$, $df = 3/141$, $p < .001$). While most respondents (63.1%) report that they would be likely to seek out help from a therapist, scientists report they would be significantly less likely to seek it than would psychologists and shoppers ($p < .05$).

Table 16

Likelihood of seeking out a psychotherapist
by group

Group	% Extre. likely	Smwh. likely	Neither	Smwh. likely	Extre. unlikely	Total
Psych. (n)	31.3 (10)	34.4 (11)	12.5 (4)	15.6 (5)	6.3 (2)	22.1 (32)
Scien. (n)	13.5 (5)	16.2 (6)	16.2 (6)	35.1 (13)	18.9 (7)	25.5* (37)
Busin. (n)	5.4 (2)	43.2 (16)	8.1 (3)	18.9 (7)	24.3 (9)	25.5 (37)
Shop. (n)	35.9 (14)	33.3 (13)	2.6 (1)	17.9 (7)	10.3 (4)	26.9 (39)
Total (n)	21.4 (31)	31.7 (46)	9.7 (14)	22.1 (32)	15.2 (22)	100.0 (145)

*Significantly fewer scientists than psychologists and shoppers indicated that they would be willing to seek out the help of a psychotherapist ($p < .05$).

Attitudes towards psychotherapists

Mean scores were also obtained for respondents perceptions of psychotherapists (See Table 17). All statements were coded in the same direction (e.g. a response of 1 or 2 always indicated positive attitudes; a response of 4 or 5, negative attitudes). Lower mean scores, therefore, indicate more positive attitudes towards psychotherapists. Overall, respondents attitudes towards psychotherapy are fairly positive as evidenced by their generally low mean scores. Some groups however, have more positive perceptions of psychotherapists than others ($F =$

6.75, $df = 3/223$, $p < .001$). A Scheffe post hoc test revealed that overall, business people have significantly less positive attitudes towards psychotherapists than do psychologists ($p < .01$). Overall differences between the groups was also found when psychologists were removed from the oneway analysis (2, 158 $F = 4.66$ $p < .01$). Business people had significantly less positive attitudes towards psychotherapists than shoppers ($p < .05$).

Table 17

Mean and standard deviation scores
on perceptions of psychotherapists by group

Group	Mean	Standard Deviation
Psychologists	2.21	0.57
Shoppers	2.28	0.59
Scientists	2.61*	0.64
Business People	2.56* **	0.51
Total	2.40	0.60

*Indicates significant differences between business people, scientists and psychologists $p < .05$.
**Indicates significant differences between business people and shoppers $p < .05$.

Separate oneway analyses of variance were run on each statement. No significant differences were found among the groups on statements relating to psychotherapists unhealthy motives for practicing psychotherapy. Only a small percent of respondents agree that psychotherapists treat other people's emotional problems in order to control and manipulate them (4.0%) and that psychotherapists do psychotherapy in order to figure out their own problems

(14.9%). It's interesting that more psychologists (21.2%) were likely to agree with this statement than other groups because presumably they have the most accurate way (through professional contacts) of assessing this statement. In addition, very few respondents (11.0%) agree that "Psychotherapists are more likely than other people to have unstable children." On the other hand, nearly half of the respondents (40.1%) agree that "Psychotherapists talk in jargon that few of us understand" (See table 18).

Table 18

Percentage who agree to psychotherapy statements by group

(n)	% agree strongly/agree somewhat				
	Psych. (66)	Scien. (50)	Busi. (54)	Shoppers (57)	Total (227)
Psychotherapists treat other people's emotional problems in order to control and manipulate them.	3.0 (2)	6.0 (3)	1.9 (1)	5.3 (3)	4.0 (9)
Psychotherapists do psychotherapy in order to figure out their own problems.	21.2 (14)	18.0 (9)	9.3 (5)	10.6 (6)	14.9 (34)
Psychotherapists are more likely than other people to have unstable children.	3.0 (2)	6.0 (3)	14.9 (8)	21.1 (12)	11.0 (25)
Psychotherapists talk in jargon that few of us understand.	36.3 (24)	34.0 (17)	53.7 (29)	36.9 (21)	40.1 (91)

Significant differences were found among the groups on statements relating to two dimensions of psychotherapy. The first relates to the motivations of psychologists who conduct psychotherapy while the second issue deals with specific abilities of psychotherapists. On the whole, scientists and business people's attitudes towards these two issues are significantly more negative than the attitudes of psychologists and shoppers.

Motivations of psychotherapists

Highly significant overall differences were found on statements concerning psychotherapists' interest in making money ($F = 3.06$, $df = 3/223$, $p < .002$); interest in the sex lives of their patients ($F = 8.03$, $df = 3/223$, $p < .001$) and in their desire to help others ($F = 6.33$, $df = 3/223$, $p < .001$).

Overall, very few respondents agree (15.9%) that psychotherapists are more interested in making money than in helping people, and even fewer (13.3%) agree that psychotherapists are overly interested in the sex lives of their patients. Nevertheless, significantly more business people than psychologists ($p < .05$) agree with the statement regarding psychologists financial interests in practicing psychotherapy while significantly more scientists than psychologists ($p < .01$) agree that psychologists have an

inflated interest in the sex lives of their patients. In spite of these criticisms, nearly three quarters of the respondents agree that "Psychotherapists help other people with their emotional problems because of a genuine desire to help others". Consistent with their overall criticisms of the disengenuous motives of psychotherapists, scientists and business people are significantly less likely than psychologists to agree with this statement ($p < .01$). Business people are also less likely to agree with this statement than are shoppers ($p < .05$). It seems that respondents have some trouble with the specific motivations of psychotherapists but at the same time seem to feel that overall, these unprofessional motivations don't override psychotherapists genuine desires to help those in need of it.

Table 19

Percentage of agreement to motivations
of psychotherapists by group

	% who agree strongly/agree somewhat				
	Psych. (66)	Scien. (50)	Busin. (54)	Shoppers (57)	Total (227)
Psychotherapists are more interested in making money than in helping people.	9.1 (6)	16.0 (8)	25.9* (14)	14.1 (8)	15.9 (36)
*Significantly more business people agreed with this statement (p < .01) than did psychologists.					
Psychotherapists are overly interested in the sex lives of their patients.	4.5 (3)	26.0* (13)	16.7 (9)	8.8 (5)	13.2 (30)
*Significantly more scientists agreed with this statement (p < .05) than did psychologists and shoppers.					
Psychotherapists help other people with their emotional problems because of a genuine desire to help others.	79.0 (59)	54.0* (32)	56.6* ** (30)	79.0 (45)	57.2 (116)

*Indicates a significant difference between scientists
and business people from psychologists (p < .01) and
** between business people and shoppers (p < .05).

Abilities of psychotherapists

Significant overall differences among groups of
respondents were found on three statements dealing with the
perceptive skills of psychotherapists ($F = 4.96$, $df = 3/223$,

$p < .002$) with their ability to help people ($F = 5.08$, $df = 3/223$, $p < .002$) and with their tendency to figure out underlying motivations of others ($F = 4.60$, $df = 3/223$, $p < .003$).

Overall, respondents -- especially scientists and business people -- are not overwhelmingly positive about the abilities of psychotherapists. On the positive side, nearly 70% of the respondents agree that psychotherapists really help the people they treat, although scientists are significantly less likely to agree with this statement than are psychologists and shoppers ($p < .05$). Examination of the specific abilities of psychotherapists yields a less positive picture. Less than half of the participants (41.8%) agree that "psychotherapists are more perceptive than other people" while approximately one third (34.3%) disagree. Scientists, however, are significantly less likely to agree with this statement than psychologists ($p < .05$). Similarly, nearly half of the respondents (40.1%) agree that "Psychotherapists are always trying to figure out the motives of the people they meet, although business people are significantly more likely than psychologists to agree with this assertion ($p < .01$).

Table 20

Percentage of agreement to abilities of
psychotherapists by group

% who agree strongly/agree somewhat

	Psych. (66)	Scien. (50)	Busin. (54)	Shoppers (57)	Total (227)
Psychotherapists are more perceptive than other people.	59.0 (39)	32.0* (16)	35.2 (19)	36.8 (21)	41.8 (95)

*Scientists were significantly less likely to agree with
this statement than were psychologists ($p < .05$).

Psychotherapists really help the people they treat.	84.9 (56)	54.0* (27)	60.4 (32)	75.5 (43)	69.9 (158)
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*Scientists were significantly less likely to agree with this
statement than were psychologists and shoppers ($p < .05$).

Psychotherapists are always trying to figure out the motives of the people they meet.	36.3 (24)	34.0 (17)	53.7* (29)	36.9 (21)	40.1 (91)
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*Business people were significantly more likely to agree
with this statement ($p < .01$) than were psychologists.

Advice to psychologists

A total of 116 respondents completed the stub "If I
could give psychologists one piece of advice it would be
..." Although some respondents ($n=16$) gave more than one
answer, only the first response was used for statistical
purposes. The suggestions made to psychologists fell into
two categories. Two judges reached 95% agreement in their

classifications. The categories include (a) advice related to work and (b) advice related to interpersonal qualities of psychologists. Advice related to work includes any suggestion that concerned the work performed by psychologists. Examples include: "Make no general claims about human human behavior", "Study the worthwhile things, not the trivial", and "Be open with your results instead of hiding their ambiguities, and flaws". Advice related to interpersonal qualities include suggestions about the character and style of psychologists. Responses in this category include: " Be a little more humble, you don't know it all", "Have a little more compassion and be a little less mercenary", "Cut the jargon, it's absurd and alienating", and "Remember, each person is unique and different not an abstract entity". Table 21 shows the number of responses in each category made by the four groups of respondents.

Overall, respondents gave approximately equal numbers of suggestions in both work and style categories to psychologists. More specifically, scientists (62.5%) were more likely to suggest that psychologists improve the scientific content of their work while more of the shoppers (70%) were more likely to suggest that psychologists become more attuned to the human elements of their discipline. These suggestions also reflect the differences among the groups in the ways in which they associate psychology with either research or with psychotherapy.

Table 21

Advice to Psychologists by group

Advice

Group	%Work	Personal	Total
Psychologists (n)	48.6 (18)	51.4 (19)	31.9 (37)
Scientists (n)	62.5 (15)	37.5 (9)	20.7 (24)
Business (n)	48.0 (12)	52.0 (13)	21.6 (25)
Shoppers (n)	30.0 (9)	70.0 (21)	25.9 (30)
Total (n)	46.6 (54)	53.4 (62)	100.0 (116)

Overall feelings towards psychology

On the whole, respondents overall feelings towards psychology were very favorable. Over three quarters of the sample (79.%) rated their overall feelings towards the profession as either extremely positive (30.5%) or somewhat positive (48.7%) (See table 22). A oneway analysis of variance, however, indicated some groups were significantly more favorable about psychology than others ($F = 6.02$, $df = 3/222$, $p < .001$). A post hoc Scheffe test showed that overall, scientists have significantly less positive attitudes towards psychology than psychologists ($p < .01$). When psychologists were eliminated from the oneway procedure, the analysis still indicated significant overall

differences among the groups ($F = 3.34$, $df = 2/157$, $p < .03$). A Scheffe test, once again, showed that scientists have significantly less positive attitudes towards psychology than do shoppers ($p < .05$). It is interesting to note that while many criticisms have been marshalled against psychotherapy in both the therapeutic and research domains, overall attitudes towards psychology are extremely favorable.

Table 22

Overall feelings towards psychology by group

Feelings

Group	% Ex. Posit.	Somewh. Posit.	Neither +/-	Somewh. Negat.	Ex. Negat.	Total
Psych. (n)	43.9 (29)	45.5 (30)	7.6 (5)	1.5 (1)	1.5 (1)	29.2 (66)
Scien. (n)	12.0 (6)	56.0 (28)	16.0 (8)	12.0 (6)	4.0 (2)	22.1* ** (50)
Busin. (n)	17.0 (9)	58.5 (31)	13.2 (7)	11.3 (6)	0.0 (0)	23.5 (53)
Shop. (n)	43.9 (25)	36.8 (21)	5.3 (3)	12.3 (7)	1.8 (1)	25.2 (57)
Total (n)	30.5 (69)	48.7 (110)	10.2 (23)	8.8 (20)	1.8 (4)	100.0 (226)

*Indicates a significant difference between scientists and psychologists ($p < .01$).

**Indicates significant differences between scientists and shoppers ($p < .05$).

Factor analysis: Knowledge, research and psychotherapy scales

A factor analysis was conducted on the three scales designed to measure knowledge of psychology, attitudes towards research and attitudes towards psychotherapy. A varimax rotation was used for analysis of the thirty items. (Other questionnaire items could not be readily incorporated into this analysis because they were not in the appropriate scaled form.) Only those with factor loadings higher than .40 were included in the final selection. Three factors emerged from the data which are shown in table 23.

The first factor is "Positive attitudes toward research psychology" and includes the following statements: (a) Findings in psychology are just as scientific as findings in chemistry, (b) More tax dollars should be devoted to psychological research and (c) Insights derived from psychology experiments offer benefits to humanity. The second factor is "Negative attributes of psychotherapists". This factor includes statements about specific characteristics of psychotherapists. The four statements which define this factor are (a) "Psychotherapists are more interested in making money than in helping people" and (b) "Psychotherapists do therapy in order to figure out their own problems," (c) "Psychotherapists are more likely to have unstable children," and "Psychotherapists treat other

people's emotional problems in order to control and manipulate them." The third factor, "Differences between psychology and psychiatry" includes statements about the unique qualifications of psychologists. They are (a) All psychologists are qualified to give IQ tests and (b) In order to become a psychologist, one must work in a hospital.

Together, 60.2% of the common variance was accounted for by all factors with Eigenvalues greater than 1. The first factor, "Positive attitudes towards research psychology" accounted for 26.9% of the variance. Negative attributes of psychotherapists" accounted for 19.2% of the variance while "Differences between psychology and psychiatry" accounted for 14.2% of the variance. These three factors validate that the three scales that were designed to measure knowledge and attitudes towards psychology, do in fact reflect distinct aspects of the respondents' attitude structure.

An additional analysis, using a three factor solution generally confirms the empirical separateness of these three aspects of attitudes towards psychology. However, the first factor in this three solution analysis, included items representing positive attitudes towards research and psychotherapy while the items loading onto Factor I in the multifactor solution were restricted to the value of research psychology.

Table 23

Factors derived from 30 Scale items

Factor I

Postive attitudes towards research psychology	Factor Loading
(a) Findings in psychology are just scientific as findings in chemistry.	0.49
(b) More tax dollars should be devoted to psychological research.	0.77
(c) Insights derived from psychology experiments offer benefits to humanity.	0.42

Factor II

Negative attributes of Psychotherapists	
(a) Psychotherapists are more interested in making money than in helping people.	0.63
(b) Psychotherapists do psychotherapy in order to figure out their own problems	0.60
(c) Psychotherapists are more likely than other people to have unstable children.	0.62
(d) Psychotherapists treat other people's emotional problems in order to control and manipulate them.	0.53

Factor III

Differences between psychology and psychiatry.	
(a) All psychologists are qualified to give I.Q. tests.	-0.55
(b) In order to become a psychologist, one must work in a hospital.	-0.55

Chapter Five

Discussion

On the most general level, the results of this study indicate that overall attitudes towards psychology among the four groups of respondents are highly favorable. The majority of respondents (79.2%) report that their overall feelings about the profession are either extremely positive or somewhat positive. Even the sample of scientists, whose feelings towards psychology differ significantly from the three other groups, indicate generally positive feelings towards psychology (as evidenced by their higher mean scores on this measure). In addition, the respondents who have had closer professional contact with psychologists (e.g. through psychotherapy or participation in a psychology experiment) are also very favorable about these experiences. These responses suggest that there may be a firm foundation of both professional and public approval on which psychologists can rely in their current efforts to improve and broaden the public's image of psychology.

The respondents in this survey indicate considerable knowledge about the psychology profession. Misinformation exists, especially among scientists, but for the most part, respondents are capable of distinguishing the difference between psychologists and psychiatrists and are aware that

psychologists perform functions in addition to therapeutic ones. Most respondents are also aware that psychologists, like many other professionals, are bound by a code of ethics and must hold licenses in order to call themselves this title. Given these findings, it appears that Bevan's (1982) assessment that the public's perception of psychology is "simplistic, limited and grossly imbalanced" is overstated, although such an interpretation must be viewed with the limits of the sampling procedures in mind.

On the other hand, close examination of specific issues reveals a more complicated and less positive picture of respondents perceptions of psychology and psychologists. To some extent, Atkinson's assertion that the many people are dissatisfied with and even hostile towards psychology has been confirmed although the overall picture which emerged from these respondents is not as gloomy as he and others have implied. It appears that along side the generally positive perception of psychology lie several competing perceptions which concern what "psychology" is and to what aims "psychology" should strive.

To begin, the term "psychology" has different associations to different groups, and the associations fall into two discrete categories. The majority of psychologists and scientists, for example, associate the best (and the worst) about psychology with issues relating to science and

research, whereas business people and shoppers associate the best (and the worst) about psychology with issues relating to therapy. Overall, however, respondents are more likely to associate psychology's "best" with the beneficial effects of psychotherapy and psychology's "worst" with the profession's unscientific nature. Given that fewer criticisms marshalled against psychotherapy, it seems that respondents may be more tolerant of the imperfections and difficulties inherent to psychology's role in helping people than they are of those associated with psychology's efforts in building a scientific framework of behavior.

Although respondents are more critical of scientific psychology in general, they are surprisingly positive about specific aspects of research psychology. Respondents express extremely positive feelings about the relevance, originality and benefits of psychological research -- evidence which strongly contradicts assertions that psychologists efforts are seen as ineffective, wasteful and irrelevant (Elms, 1975; Miller, 1969; Nisbitt, 1981; Proxmire, 1975). Nearly the entire sample agrees (91.6%) that "insights derived from psychology experiments can offer benefits to humanity" and concomitantly, only a handful of respondents indicate that the research psychologists conduct has no relevance to important social problems. Moreover, respondents do not seem to believe, as Proxmire suggests, that psychology simply confirms the obvious: less than

twenty percent of the entire sample agrees that research efforts confirm what everybody already knows.

Given that respondents are so positive about the benefits of psychological research, why do only half indicate that more tax dollars should be devoted to research? One possible explanation may be that respondents do not support spending more government money for anything. Another explanation may be that this is an expression of their negative attitudes towards the value of research. Respondents answers to several statements regarding scientific and methodological issues provide support to this interpretation.

Respondents indicate dissatisfaction with the scientific status of the profession when they completed the statement: "The worst that can be said about psychology is ...". Over three quarters of the respondents replied with phrases and words such as "fly by night", "glorified common sense", "witchcraft", "astrology" which lends support to the suggestion that the general public does not regard highly the scientific status of the profession as it currently stands. On the other hand, not all respondents discount the scientific nature of the profession. Participants are about evenly split on whether findings in psychology are just as scientific as findings in chemistry. This data does not completely support assumptions made by Proxmire (1975),

Reicken (1981) and Bazelon (1982) which purport that public dissatisfaction with psychology is based largely on its unscientific nature.

In addition, criticisms of research seem related to respondents' disapproval of controversial methods used in psychological experimentation. Approximately half of the respondents do not agree that psychologists should use either electric shocks or deception in their research with human subjects. On the other hand, the non-psychologists do not seem to be as preoccupied with these issues as some psychologists (e.g. Warwick, 1975) assume. Less than 5% of the respondents associate psychology experiments with either electric shocks or deception. Moreover, about 70% of respondents indicate a willingness to participate in research studies, which suggests that psychologists may have exaggerated the importance of shocks and deception on general perceptions of psychological research.

Examination of the associations respondents have to psychology experiments provides some additional insight into why respondents have mixed perceptions of research psychology. Respondents associate psychological research primarily with the mechanical and subhuman aspects of experimentation. About half (51.4%) of the respondents' first associations to psychology experiments are "rats and mazes". Respondents also associate experiments with the

most prominent behavioral researchers (e.g. Pavlov and Skinner) or with Milgram -- the investigator of one of psychology's most controversial and widely publicized experiments. Perhaps, as George Miller (1969) and B.F. Skinner (1982) suggest, respondents are threatened by what they perceive as the scientific aims of psychology. They may also be responding to the fact that systematic inquiries do not confirm the way people want to perceive themselves (Prewitt, 1981). To this point one college student said psychology "reveals frightening realities about human nature like the results of Milgram's experiment on obedience to authority."

Respondents' attitudes towards psychotherapy are also mixed. Given that the majority of those who had been in psychotherapy indicate that the experience has been very helpful, and that over half of those who had never been in psychotherapy indicate that they would seek it out under certain problematic conditions, their attitudes towards psychotherapy are not especially positive (as evidenced by their mean scores on this measure). It seems that respondents have positive feelings towards the concept and process of psychotherapy but have negative feelings towards the general motives, specific abilities and interpersonal qualities of psychotherapists. One lawyer noted that "psychology helps make people feel better [but] psychologists are a bunch of nuts."

A sizable percentage of the respondents (40.1%) agree that psychologists use too much jargon and that they are perpetually trying to figure out the motives of the people they meet. A small number of respondents also appear to be suspicious of psychotherapists. This was evident by their partial agreement with statements such as "Psychotherapists are more interested in making money than in helping people", "Psychotherapists are overly interested in the sex lives of their patients" and "Psychotherapists do psychotherapy in order to figure out their own problems". One business person points to what she perceives as hypocrisy among psychologists: "They tell everyone else what to do, if they bother to say anything at all, and then proceed to ignore their own advice".

Most participants agree however, that psychotherapists really help the people they treat and that they work in the profession they do because of a genuine desire to benefit others. Similarly, less than five percent of the respondents believe that psychotherapists treat other people's emotional problems in order to control and manipulate them. Nor do many agree that the psychotherapists are more likely than other people to have unstable children.

Finally, there is no unanimity among respondents in terms of the types of advice they offer psychologists. Scientists, for example, are more likely to advise psychologists to become more scientific in their work whereas shoppers are more likely to advise psychologists to become more sensitive to the interpersonal aspects of their profession. Such diversity in the aims to which people would like psychologists to strive appears to be symptomatic of the difficulties inherent in unifying our multi-faceted profession.

Let us now examine how the different groups of respondents perceive psychology.

Psychologists' perceptions of psychology

In general, psychologists' perceptions of their profession are extremely favorable as evidenced by their overall low mean scores on all of the measures (e.g. perceptions of research psychology, perceptions of psychotherapy). Psychologists were generous with their praise about the profession's contribution to the alleviation of human suffering and to the understanding of behavior through scientific methods. One psychologist commented: "Psychology has freed us from much illusion and superstition. It has tried to substitute disciplined

inquiry for mere dogma". The majority of psychologists also agree that insights derived from psychology experiments can offer benefits to humanity and that the research they conduct is both original and relevant to problems in the "real world".

Criticisms of the profession are marshalled primarily against psychology's unscientific nature. Over three quarters of the psychologists indicated that "worst" about psychology concerns its unsystematic and unscientific basis. Most of these psychologists remark that "psychology" has not made much progress in the understanding of behavior nor has it been successful in achieving scientific goals. In addition, about half of the psychologists (49.1%) indicate that they do not perceive findings in psychology to be on the same scientific level as findings in chemistry or physics. "Psychology is a hydra-headed creature without coherence," said one psychologist. He continues, "There are no common standards for judging the worth of its contributors. Sometimes it substitutes one dogma for another it replaces. Some practice it as witchdoctors ... sometimes it pretends to knowledge where it only has doctrine and opinion".

One third of the psychologists agree that "psychologists usually study issues that are trivial". Given that psychologists are the most familiar with the

research issues studied by psychologists, this criticism of the profession seems to deserve more attention. It implies that psychologists are discontent with the paucity of research on significant aspects of behavior. This idea is reinforced further by the advice psychologists give to their colleagues. Nearly half of the psychologists suggest that psychologists become more involved in relevant, significant and scientific projects. Other psychologists recommend that their colleagues be more warm and open, and less rigid and pompous. Several psychologists wrote: "Let's stop this know-it-all attitude". Another psychologist reflected the attitude of many psychologists with this assessment of the profession:

[Psychology] is interesting. Most people in the field are dedicated to it, do more good than harm and ... turn up interesting facts that help people and society ... but this hardly compensates for garbage we also generate. When I look at the "scientific" journals, I often scout for one piece of information that has human significance ... I usually don't find it ... the only significance is statistical.

The same problems which have plagued psychologists during psychology's internal crisis are still problematic. While psychologists do not reject entirely the values, goals, tenets and accomplishments of the profession, as Littman (1961) and others (e.g. Miller, 1969; Ring, 1967) have suggested, they nonetheless have difficulty with them. Psychologists still question how valid, reliable and

relevant theories and experiments are to "real life" situations. They also express ambivalence about just how scientific they want the profession to be. There is concern that scientific goals will (and already have) compromise(d) the profession's humanistic responsibilities. It appears that the crisis in confidence first discussed over thirty years ago (Elms, 1975; Littman, 1961) is alive and well today. The conflicts relating to the interface between psychology's humanistic concerns and the scientific method are as problematic now as they were then -- and maybe even more so.

There is no way of assessing to what degree the psychologists in this sample reflect accurately the various types of psychologists in the American Psychological Association. Like the other respondents, psychologists were all self-selected so it is impossible to know whether these attitudes are more positive or more negative than those who did not participate in the survey. Future research on psychologists' perceptions of psychology might also want to examine and compare the perceptions of clinical psychologists and research psychologists.

Scientists' perceptions of psychology

Of the four groups studied in this survey, our sample of scientists indicate the most negative attitudes towards psychology. They also indicate the the least factual knowledge about the profession. Scientists are less likely to know that most states require a license in order for one to call him or herself a psychologist, and to know that psychologists are bound by a professional code of ethics. In other words, scientists, compared with the three other groups, are unaware that the psychology profession, like other established professions, has regulations and codes designed specifically to insure the integrity of the profession, as well as to help maintain the profession's reputation and credibility in the eyes of the public.

Scientists report essentially unfavorable attitudes towards research psychology as evidenced by their higher mean scores on this measure. Even with their apparrant rejection of psychological research, they indicate, along with psychologists, that the psychology profession's scientific basis is "the best that could be said about psychology". The great majority of scientists (90%) also agree (either strongly or somewhat strongly) that psychological research can offer benefits to humanity while less than a third (28%) agree that psychologists usually study trivial issues. Such responses suggest that there is

a positive foundation on which psychology professionals can try to build their professional image with scientists. Scientists seem to appreciate that "psychology" strives for precision and predicatblity but, at the same time, they do not believe that it is capable of achieving this goal. Scientists suggest that psychologists "Make theories more testable", "Get proper scientific training", "Do more experiments", and "Keep psychology as a hobby and do something more constructive for a living".

In addition, scientists respond negatively to both the method and the content of psychology. Only 32% of the scientists agree that findings in psychology are as scientific as findings in chemistry, while 60% disagree. Concomitantly, nearly all scientists (88.4%) agree that the worst about psychology is that it is unscientific. One scientist who represented the opinion of many others said "Psychology is a compilation of questionable data used to derive a conclusion that is usually obvious ahead of time, [and is] essentially useless in predicting human behavior."

The fact that only a third of the scientists agree that more tax dollars should be devoted to psychological research is relevant. Hard scientists exercise influence in government and therefore have some degree of control over the general distribution of research funds. On the more positive side, nearly half of the hard scientists (44%)

neither agree nor disagree with this issue which suggests, once again, that psychologists have the opportunity to influence the attitudes of this group.

Compared to other groups of respondents, fewer scientists report a willingness to participate in a psychology experiment. While 32.3% of the scientists indicate they would be willing to participate, 38.7% report that they would be unwilling. Consistent with this is the finding that only half of the scientists (50%) agree that "Psychologists are usually sensitive to those who participate in their research."

Scientists also indicate negative and hostile attitudes towards psychotherapy. Of those respondents who had never been in therapy, scientists say that they would be the least willing to seek out the help of a psychotherapist. They also disagree more often than do the other groups with the statement "Psychotherapists really help the people they treat". Only about half (54%) of the scientists agree with this statement.

Their negative opinions of psychotherapy seem, in part, to be based on the belief that psychotherapists' motivations for treating others are disingenuous and insincere. Many scientists, for example, assert that "psychology is practiced by poorly trained people with a lot of unresolved problems". Similarly, more scientists agree that

psychotherapists are overly interested in the sex lives of their patients. To this point, one scientist remarked that "Therapy is just an excuse for a bunch of repressed perverts to get others to talk about dirty secrets and juicy fantasies ...". Scientists also disagree more often than the other groups with the statement "psychotherapists do psychotherapy because of a genuine desire to help others." Negative attitudes towards psychotherapy may also be related to a general anti-intropective bias among scientists as a whole.

It is useful to note that scientists returned more unanswered questionnaires than did psychologists or business people. Such actions, in general, are difficult to interpret accurately although some scientists made it easier by sending along a message. One scientist included a note which stated: "Don't ever send me another questionnaire like this again". Another scientist wrote: "I started to fill out your questionnaire in good faith but realize I'm much too hostile toward psychotherapy to be of any use". It is interesting, of course, that this scientist apparently equated the profession of psychology with the process of psychotherapy.

Business people's perceptions of psychology

Business people, like scientists, have more negative perceptions of psychology than do psychologists and shoppers as evidenced by their higher mean scores on perceptions of research psychology and psychotherapy. For the most part, business people associate the positive aspects of psychology with psychotherapy and the negative aspects of psychology with research. Most business people agree that psychology is useful and valuable in helping people to deal with their emotional problems, but that psychology also has no scientific foundation on which to base its principles. Business people also express serious reservations about the efficacy of psychotherapy: they indicate that therapy may do more harm than good, reporting that this process often "makes people more mixed-up".

Although the majority of business people indicate correct responses to the statements concerning respondents' knowledge of the psychology profession, they cannot accurately distinguish between the professions of psychology and psychiatry. Only slightly more than half of the business sample agree with the statement "Many psychologists do not practice psychotherapy". Similarly, some business people believe that psychologists can prescribe drugs to their patients. Unlike the scientists in this sample, however, most business people are aware that psychologists

are bound by a code of ethics and that they need a license in order to call themselves psychologists.

Along with scientists, they indicate the least positive attitudes towards research psychology. They do not believe that findings in psychology are scientific, nor do they believe that more tax dollars should be invested in psychological research. Business people indicate greater willingness than scientists to participate in research experiments, even though they also report that they do not believe that psychologists are especially sensitive to those who participate in their research. Perhaps business people do not expect psychologists to be sensitive to others since the nature of business as a profession requires the recognition that insensitivity on the part of professionals is not necessarily tantamount to professional incompetency. On the other hand, a number of business people express dissatisfaction with what they perceive as haughtiness and pomposity on the part of psychologists, suggesting that psychologists "be a little more humble: your answers may be wrong".

Of the four groups, business people have the most negative attitudes towards psychotherapy and psychotherapists. Their mean scores were significantly higher (indicating more negative attitudes) than the other three groups. The source of their negativity appears to be

rooted in the perception that psychotherapists hide insincere motives beneath a facade of concern and interest in others. It seems that business people have difficulty accepting that psychotherapists have interests and motivations other than financial ones. As a result, some business people project their own pecuniary motives onto psychotherapists, and indicate significantly more than other groups that psychotherapists are more interested in making money than in helping people. One business person advised psychologists to "become psychiatrists, this is more profitable". Some business people also believe that psychologists have deliberately figured out the effortless route to financial success, and express resentment towards psychologists because of it. "Psychologists have a great deal", said one business man. "They get paid without having to prove anything. Even if patients get worse, they still make money. What a racket."

Projecting their own interest in financial gain seems to be only a part of the reason for their negative feelings towards psychotherapists. Another aspect seems to be related to the anxiety business people feel because of what they perceive as psychotherapists' ability to analyze the inner workings of people. More than any other group, business people report that "psychotherapists are always trying to figure out the motives of the people they meet". One business man advised psychologists to "stop nodding your

heads all the time, it makes me nervous".

Shopper's perception of psychology: The Connecticut sample

The shopper's perceptions of psychology are very favorable, on the whole. Most of these respondents report that their overall feelings towards psychology is either extremely positive (43.9%) or somewhat positive (36.8%) In addition, their overall mean scores on perceptions of research psychology and psychotherapy were relatively low which also indicates that their attitudes towards more specific aspects of psychology are also quite favorable.

The shoppers, as one might expect, tend to equate the term "psychology" with psychotherapy. Over three quarters of these respondents associate the "best about psychology" with issues relating to psychotherapy. Most respondents indicate that psychology "helps people understand themselves" and that it "is useful in trying to alleviate human suffering". These shopping mall respondents also seem to feel that psychology can be detrimental to some people, offering them insights and points of view that may be upsetting and damaging rather than ones that facilitate positive feelings and healing. One respondent wrote that "psychology breaks people down by pointing out all of their weaknesses. Strengths are ignored which leaves people

feeling hopeless and lousy." Another respondent said that psychology "is hokum ... it has a negative view of human nature which may not necessarily be correct. ... but psychologists go around acting like gods so everyone believes them."

Shoppers also indicate considerable knowledge about the psychology profession, as evidenced by their relatively low mean scores on this measure. Perhaps the respondents in this survey are unusually sophisticated given that they were recruited from a middle-class college town. Nevertheless, these results suggest that the public is more knowledgeable than one might expect given the studies (e.g. Cohen & Weibe, 1955; Guest, 1948; Small & Gault, 1975; Tallent & Reiss, 1959; Thumin & Zebelman, 1967) which indicate that the general public has a narrow view of the the profession. The shoppers are capable of distinguishing between the roles of psychologists and those of psychiatrists, although they tend to perceive psychologists in the role of evaluating behavior. In this context, the shoppers indicated significantly more often than other groups that all psychologists were qualified to administer intelligence tests.

Although the shopper's attitude towards research psychology is quite positive, they, like the other groups of respondents, are not particularly enthusiastic about the

scientific status of the psychology profession. Only slightly more than half of the mall participants indicate that "findings in psychology are just as scientific as findings in chemistry". Similarly, the majority of shoppers report that the "worst that can be said about psychology is" that it is unscientific. Respondents commented that psychology is "what anybody thinks it is, there are no answers". Other shoppers said psychology "is like looking into a crystal ball. Everyone who looks into it gets a different answer ... there is no agreement among practioners."

Perhaps the most unexpected finding was the degree to which the shoppers object to the statement "research psychologists usually study trivial issues". Nearly three quarters of these respondents either disagreed somewhat or disagreed strongly with this statement. In view of the fact that one third of the psychologists and scientists agree with it, this finding suggests that these respondents either are unfamiliar with the nature of psychological research and therefore cannot properly evaluate its significance, or they in fact believe that psychologists study important topics. Alternatively, since shoppers equate psychology with psychotherapy, and psychotherapy is a process which studies people, respondents may disagree so strongly with this statement because not doing so would be tantamount to agreeing that the alleviation of human suffering is trivial.

While the shoppers are very positive about the benefits derived from research, most do not find harmless shocks or deceptive techniques acceptable research tools. Only 28.1% agree that harmless shocks are acceptable for psychologists to use, while 38.6% agree that concealing aims to research participants is justifiable. It seems reasonable that shoppers would object to these methods, given that they would be the ones psychologists would most likely apply them to. However, despite what Warwick (1975) and Kelman (1967) assume, non-psychologists do not entirely reject such techniques. Indeed, 83.7% of the shoppers report a willingness to participate in a psychology experiment and 78.4% agree that more tax dollars should be devoted to research.

Implications

That respondents do not have the same associations to "psychology" is relevant. It addresses the semantic issue of whether or not a profession which encompasses such diverse methods and foci should have the same label. Two terms such as "clinical psychologist" and "research psychologist" might help eliminate confusion in the public's eye. These more explicit labels would also help people distinguish between the two major types of psychology, which would in turn broaden their perception of the field. To

this point, one psychologist recommends that the word "psychology" be abandoned altogether because of its "sweeping and inclusive nature". He goes on to suggest psychologists "probably need more than one word to describe [our] activities. It is only an accident that a therapist and a researcher are both called psychologists when they use such different methods and have such different outlooks."

The labeling problem, however, is only symptomatic of a larger and more fundamental issue. The issue concerns the degree to which the discipline of psychology, with all of its diversity and complexity, can successfully achieve scientific aims without compromising its humanistic focus. Each group of respondents, in varying degrees, seems to be grappling with this problem. Indeed, this issue has been around since psychology's birth.

More specifically, negative attitudes towards the profession seem to emerge out of two competing and seemingly irreconcilable aims. The first is the desire to see psychology become more scientific and the second is the desire for psychologists to maintain a humanistic perspective.

Respondents are obviously favorably disposed to the concept of psychology (whether research or psychotherapy) and believe that a more scientific discipline is necessary. At the same time, respondents do not seem to like or

appreciate what they associate with the scientific aims of psychology. It is clear from the way respondents reacted towards "psychology experiments", that they perceive scientific psychology as cold, controlling, inhumane and lacking in sensitivity to emotions and behavior. One shoppers implored psychologists to "Keep the human persepective. People are not machines or lab rats." To fully encourage efforts to make psychology more scientific may be incompatible with the public's own values and sense of self-worth. On a more fundamental level, respondents may reject science because they do not see it as retaining recognizable qualities in their own lives. To the extent that science often reduces familar human experiences such as fear, loneliness and love to numbers and symbols, the public may reject it on the basis that such representations do not correspond with the way they experience such emotions.

On the other hand, respondents do not regard highly the exclusively humanistic side of psychology. They are aware of the weaknesses and flaws inherent in unsystematically based assertions. These assertions obviously have some appeal because personal opinions and individual philosophies of human nature can be easily challenged and refuted thereby making every person's views legitimate and on a par with those proposed by persons having extensive training and education. In maintaining this position, respondents can reject findings which do not correspond with the way they

see human nature or wish it to be.

The aim to have psychology be scientific on the one hand and humanistic on the other also reflects two orientations in psychology, one of which is concerned with learning about people and the other with helping people. The divergence, no doubt, exists. Since the two areas of the profession are mutually dependent, psychologists would be unwise as well as inaccurate to maximize this split in any way. Given these contradictory desires, it seems that psychologists confront a dilemma that is not easily resolved.

The highly divergent attitudes found towards psychology in this survey, may simply indicate the normal spread of opinion in a varied sample. On the otherhand, it may point to a fundamental ambivalence in the public's attitude toward psychology. Katz (1982) has noted that ambivalent attitudes may lead to response amplification. For example, if a person holds ambivalent attitudes towards Blacks, he or she is more likely to respond in an extremely positive or extremely negative way towards members of this group. We may wonder, therefore, whether an underlying ambivalence towards psychology has generated some of the extreme positive or extreme negative statements expressed by our respondents. The exact nature of this ambivalence seems to lie within the conflict between the humanistic and scientific aims

discussed above.

One methodological caution is in order. Katz's theory of response amplification deals with the ambivalence residing within a single individual, while the results of this study derive from responses of many persons. Whether it is possible to apply Katz's theory to the "ambivalence of a culture" to an object, remains to be seen.

Scientists' and business peoples' negative view of psychotherapists also deserves more attention. The fact that they attribute unprofessional motives to psychologists suggests that more efforts need to be made to portray accurately psychotherapists' credentials, duties and responsibilities. By doing so, harmful stereotypes and exaggerated images of psychotherapists may be minimized. Similarly, psychotherapists themselves should be aware of how differently they are perceived by various groups so they can try to avoid reinforcing these beliefs.

It is useful to know that respondents do not all have the same information and perceptions of psychology. They appear to judge psychology through the value systems inherent to their professions. Scientists, for example, seem to judge psychology on standards relating to precision, control and predictability. Since scientists perceive psychology as lacking in these dimensions, they discredit the profession on these bases. Concomitantly, business

people apply standards to psychologists which relate to their own financial motivations. They seem to have difficulty with the idea that psychologists are not purely profit-minded and, as a result, they appear suspicious of psychotherapists motivations in helping those in distress.

Given that different groups have different perceptions of psychology, it seems logical for psychologists to try to tailor their educational efforts to specific groups. Along with selectively educating different subgroups of the population, psychologists should also consider more effective ways to explain the conclusions and the implications of their work. By doing do, psychologists will broaden the public's perception of their profession and at the same time provide feedback to the people who support psychology's efforts through research grants, psychotherapy, etc. Clarifying the implications and conclusions of the work done by psychologists will also help eliminate confusion and distortion and thus may well reduce the sense of threat some people feel. Also, knowing more about the various facets of psychology will give people a more accurate assessment of psychology which will in turn tailor their expectations and appraisal of the profession.

These interpretations must be viewed within the context of this study's limitations. The sampling problem makes it impossible to generalize these results to larger populations. The fact that one of four people participated in this survey raises the question of the differences in attitudes between respondents and non-respondents. We simply do not know whether participants have more positive or negative attitudes towards psychology than non-participants. Unfortunately, this assessment would be costly and therefore would require greater resources than were available for this study.

The use of a survey questionnaire has its limitations. The attitudes people communicate on paper may bear no relationship to their behavior in situations which necessitate communication with a psychologist. The same people who think that psychologists are perverted may well be in psychotherapy and benefiting from the experience. In order to gain a more complete view of the public's perceptions of psychology, numerous methods, including survey research and experiments, should be applied.

While it is true that, over-all, the respondents in this survey expressed generally positive attitudes towards psychology, we have no way of fitting such results into a more general context. Are attitudes towards psychology more positive than those towards medicine, for example? In order

to obtain a larger perspective of exactly how attitudes towards psychology compare with other professions, such a study would need to be undertaken. Similarly, even though psychologists' attitudes towards psychology are quite favorable, we do not know if they are more or less favorable than business people's attitudes towards business. Adequate baseline measures are advised if more work is carried out in this area.

Directions for future research

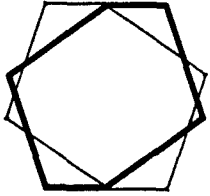
Probably the experimental approach to studying and understanding the public's perception of psychology is the more exciting and challenging way to proceed. Using the psychologist as an independent variable would be especially interesting. It would be useful to find out, for example, if respondents' reactions or evaluations of situations would change as a result of knowing whether or not a psychologist (clinician versus researcher) was present. How would this knowledge affect the respondent's self-concept, including the respondent's confidence or sense of attractiveness? Similarly, what kinds of attributions do people make to a psychologist's behavior compared to the same behavior by other professionals? Under what circumstances would people prefer the presence of a psychologist (or the absence of one)? How would people rate (clinical or research) psychologists on a semantic differential? What images might

people project onto TAT stories where two psychologists are the subjects? Also, how do different personality types (e.g. introverts, extroverts etc) perceive psychologists? What theoretical constructs help explain various perceptions of the profession? Are there gender differences in the way psychologists are perceived? Are there gender differences in the way psychologists perceive themselves?

To conclude, perceptions of psychology are as diverse and as complicated as the profession itself. This study has revealed that along side the profession's generally positive public image, are a number of problems centering on the relationship between science and human values. Perhaps not surprisingly, the same issues that are problematic for psychologists are also shared by non-psychologists. Exactly how this issue should be resolved is something psychologists ought to address. Indeed, we will be effective in learning about people and helping them as well only if we cooperate with and have insight into both our profession and the people we seek to understand.

Appendix A:

Cover letters to potential respondents



The Graduate School and University Center
of the City University of New York
Graduate Center: 33 West 42 Street, New York, N.Y. 10036

December, 1982

Dear APA Member:

I am conducting a study on people's perceptions of psychology and I would greatly appreciate your help.

For years psychologists have been studying the thoughts and behaviors of people yet, oddly enough, psychologists have never really studied what people think of them and the work they do. As a psychologist myself, I find this surprising since the goal of psychology is to understand people's thoughts, feelings, and behaviors.

The purpose of this study is to discover the views held about psychologists by people such as yourself.

It is only after psychologists become aware of these views can they improve their services to the public. Without your input, this effort cannot be effective.

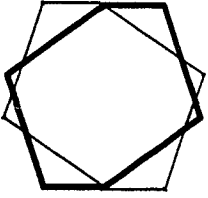
You can assist me by completing the enclosed questionnaire and returning it in the pre-stamped envelope. Your responses will remain confidential. I'd be glad to send you the results of this survey if you check the box on the last page of the questionnaire.

Many thanks for your help.

Sincerely,

Ronna Kabatznick

Ronna Kabatznick
Project Director



The Graduate School and University Center
of the City University of New York
Graduate Center: 33 West 42 Street, New York, N.Y. 10036

December, 1982

Dear Business Person:

I am conducting a study on people's perceptions of psychology and I would greatly appreciate your help.

For years psychologists have been studying the thoughts and behaviors of people yet, oddly enough, psychologists have never really studied what people think of them and the work they do. As a psychologist myself, I find this surprising since the goal of psychology is to understand people's thoughts, feelings, and behaviors.

The purpose of this study is to discover the views held about psychologists by people such as yourself.

It is only after psychologists become aware of these views can they improve their services to the public. Without your input, this effort cannot be effective.

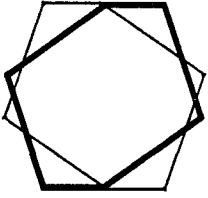
You can assist me by completing the enclosed questionnaire and returning it in the pre-stamped envelope. Your responses will remain confidential. I'd be glad to send you the results of this survey if you check the box on the last page of the questionnaire.

Many thanks for your help.

Sincerely,

Ronna Kabatznick

Ronna Kabatznick
Project Director



The Graduate School and University Center
of the City University of New York
Graduate Center: 33 West 42 Street, New York, N.Y. 10036

December, 1982

Dear Lion's Club Member:

I am conducting a study on people's perceptions of psychology and I would greatly appreciate your help.

For years psychologists have been studying the thoughts and behaviors of people yet, oddly enough, psychologists have never really studied what people think of them and the work they do. As a psychologist myself, I find this surprising since the goal of psychology is to understand people's thoughts, feelings, and behaviors.

The purpose of this study is to discover the views held about psychologists by people such as yourself.

It is only after psychologists become aware of these views can they improve their services to the public. Without your input, this effort cannot be effective.

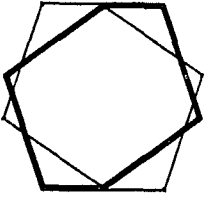
You can assist me by completing the enclosed questionnaire and returning it in the pre-stamped envelope. Your responses will remain confidential. I'd be glad to send you the results of this survey if you check the box on the last page of the questionnaire.

Many thanks for your help.

Sincerely,

Ronna Kabatznick

Ronna Kabatznick
Project Director



The Graduate School and University Center
of the City University of New York
Graduate Center: 33 West 42 Street, New York, N.Y. 10036

December, 1982

Dear Scientist:

I am conducting a study on people's perceptions of psychology and I would greatly appreciate your help.

For years psychologists have been studying the thoughts and behaviors of people yet, oddly enough, psychologists have never really studied what people think of them and the work they do. As a psychologist myself, I find this surprising since the goal of psychology is to understand people's thoughts, feelings, and behaviors.

The purpose of this study is to discover the views held about psychologists by people such as yourself.

It is only after psychologists become aware of these views can they improve their services to the public. Without your input, this effort cannot be effective.

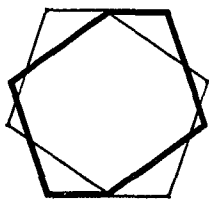
You can assist me by completing the enclosed questionnaire and returning it in the pre-stamped envelope. Your responses will remain confidential. I'd be glad to send you the results of this survey if you check the box on the last page of the questionnaire.

Many thanks for your help.

Sincerely,

Ronna Kabatznick

Ronna Kabatznick
Project Director



The Graduate School and University Center
of the City University of New York
Graduate Center: 33 West 42 Street, New York, N.Y. 10036

December, 1982

Dear Respondent:

I am conducting a study on people's perceptions of psychology and I would greatly appreciate your help.

For years psychologists have been studying the thoughts and behaviors of people yet, oddly enough, psychologists have never really studied what people think of them and the work they do. As a psychologist myself, I find this surprising since the goal of psychology is to understand people's thoughts, feelings, and behaviors.

The purpose of this study is to discover the views held about psychologists by people such as yourself.

It is only after psychologists become aware of these views can they improve their services to the public. Without your input, this effort cannot be effective.

You can assist me by completing the enclosed questionnaire and returning it in the pre-stamped envelope. Your responses will remain confidential. I'd be glad to send you the results of this survey if you check the box on the last page of the questionnaire.

Many thanks for your help.

Sincerely,

Ronna Kabatznick
Ronna Kabatznick
Project Director

**Appendix B:
Survey Questionnaire**

DIRECTIONS: Please answer all questions in INK, and in the order in which they are presented. DO NOT GO BACK TO UNANSWERED QUESTIONS. Please give the first answer that comes to mind.

1. In my opinion, the best that can be said about psychology is...

_____ 05-
_____ 06-

2. In my opinion, the worst that can be said about psychology is...

_____ 07-
_____ 08-

09-10R

(PLEASE TURN PAGE OVER)

3. All of the statements below have to do with the profession of psychology. Think about how well each of them reflects your opinion. Then check off the extent to which you agree or disagree with each statement. If you have no opinion, there is a place for you to indicate this too.

	AGREE STRONGLY	AGREE SOMEWHAT	NEITHER AGREE NOR DISAGREE	DISAGREE SOMEWHAT	DISAGREE STRONGLY	NO OPINION
a. In order to become a psychologist, a student must investigate her/his own emotional problems.	11 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
b. In some states, it is legally required that a person be licensed in order to call him or herself a psychologist.	12 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
c. Psychologists study both normal and abnormal behavior.	13 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
d. Psychologists cannot prescribe drugs to their patients.	14 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
e. In practice, there is no difference between a psychologist and a psychiatrist.	15 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
f. Many psychologists do not practice psychotherapy (i.e., help people with their emotional problems).	16 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
g. Psychologists are permitted to have sex with their patients without professional penalty.	17 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
h. All psychologists are qualified to give intelligence tests.	18 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
i. In order to become a psychologist, one must work in a hospital.	19 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
j. Psychologists, like lawyers and doctors, are bound by a formal code of professional ethics.	20 []-1	[]-2	[]-3	[]-4	[]-5	[]-6

4. Psychologists who try to help people with their emotional problems are called psychotherapists. As you read the statements below, please keep in mind that they concern only those psychologists who try to help people with their emotional problems. Check off the extent to which you agree or disagree with each of the statements. If you have no opinion, there is a place for you to indicate that too.

	<u>AGREE</u> <u>STRONGLY</u>	<u>AGREE</u> <u>SOMEWHAT</u>	<u>NEITHER</u> <u>AGREE NOR</u> <u>DISAGREE</u>	<u>DISAGREE</u> <u>SOMEWHAT</u>	<u>DISAGREE</u> <u>STRONGLY</u>	<u>NO</u> <u>OPINION</u>
a. Psychotherapists are more perceptive than other people.	21 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
b. Psychotherapists are more interested in making money than in helping people.	22 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
c. Psychotherapists do psychotherapy in order to figure out their own problems.	23 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
d. Psychotherapists are overly interested in the sex lives of their patients.	24 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
e. Psychotherapists are more likely than other people to have unstable children.	25 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
f. Psychotherapists really help the people they treat.	26 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
g. Psychotherapists treat other people's emotional problems in order to control and manipulate them.	27 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
h. Psychotherapists are always trying to figure out the motives of the people they meet.	28 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
i. Psychotherapists talk in jargon that few of us understand.	29 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
j. Psychotherapists help other people with their emotional problems because of a genuine desire to help others.	30 []-1	[]-2	[]-3	[]-4	[]-5	[]-6

(PLEASE TURN PAGE OVER)

5. When I hear the phrase "psychology experiment," I think of...

31-

32-

6. The first psychology experiment that comes to my mind is...

33-

34-

35-36R

7. Some psychologists systematically study and measure the behavior of humans and animals. They are called research psychologists. Sometimes they study this behavior in laboratories, or sometimes in factories or other settings. As you read the statements below, please keep in mind that they concern psychologists who systematically study and measure the behavior of humans and animals. Then check off the extent to which you agree or disagree with each of the statements. If you have no opinion, there is a place for you to indicate that too.

	AGREE STRONGLY	AGREE SOMEWHAT	NEITHER AGREE NOR DISAGREE	DISAGREE SOMEWHAT	DISAGREE STRONGLY	NO OPINION
a. Findings in psychology are just as scientific as findings in chemistry.	37 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
b. Results of psychology experiments usually confirm what everybody already knows.	38 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
c. More tax dollars should be devoted to psychological research.	39 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
d. Research psychologists usually study issues that are trivial.	40 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
e. In the pursuit of knowledge, it is okay for psychologists to administer harmless shocks to research participants.	41 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
f. Insights derived from psychology experiments can offer benefits to humanity.	42 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
g. Psychological research which involves concealing true aims to participants is justifiable.	43 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
h. Psychological knowledge about humans is usually based on research with rats.	44 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
i. Psychologists are usually sensitive to the needs of those who participate in their research.	45 []-1	[]-2	[]-3	[]-4	[]-5	[]-6
j. The research that psychologists conduct has no relevance to problems in the real world.	46 []-1	[]-2	[]-3	[]-4	[]-5	[]-6

(PLEASE TURN PAGE OVER)

8. If I could give psychologists one piece of advice, it would be...

_____ 47-
_____ 48-

9. My overall feeling about psychology is... (CHECK ONE)


- EXTREMELY POSITIVE 49 []-1
- SOMEWHAT POSITIVE []-2
- NEITHER POSITIVE NOR NEGATIVE []-3
- SOMEWHAT NEGATIVE []-4
- EXTREMELY NEGATIVE []-5

10. We learn about psychology in many different ways. Please put the number 1 next to the activity that you feel has been the most influential in terms of your knowledge about psychology, a number 2 next to the activity that has been second most influential, a number 3 next to the activity that has been third most influential, etc. Put a zero (0) if the activity does not apply to you.

- READING PSYCHOLOGY BOOKS _____ 50-
- WATCHING TELEVISION, MOVIES, OR PLAYS _____ 51-
- LISTENING TO PSYCHOLOGY PROGRAMS ON THE RADIO _____ 52-
- PSYCHOLOGY COURSES I HAVE TAKEN _____ 53-
- THE EXPERIENCE OF BEING IN PSYCHOTHERAPY _____ 54-
- FROM FRIENDS OR FAMILY MEMBERS WHO ARE PSYCHOLOGISTS _____ 55-
- OTHER (PLEASE INDICATE) _____ 56-

11. Have you ever participated in a psychology experiment?

YES 57 []-1

NO []-2  If you have never participated in a psychology experiment, how willing would you be to do so? (CHECK ONE)

- EXTREMELY WILLING 58 []-1
- SOMEWHAT WILLING []-2
- NEITHER WILLING NOR UNWILLING []-3
- SOMEWHAT UNWILLING []-4
- EXTREMELY UNWILLING []-5

(PLEASE SKIP TO Q.14)

12. If you have participated in an experiment, briefly describe what the experiment was about and what you did. If you have participated in more than one experiment, please indicate how many you have been in and describe the things you did.

_____ 59-
 _____ 60-

13. Overall, was this a worthwhile experience? (CHECK ONE)

- EXTREMELY WORTHWHILE 61 []-1
- SOMEWHAT WORTHWHILE []-2
- NEITHER WORTHWHILE NOR WORTHLESS []-3
- SOMEWHAT WORTHLESS []-4
- EXTREMELY WORTHLESS []-5

14. Have you ever been in psychotherapy?

YES 62 []-1

NO []-2

If you have been in psychotherapy, please indicate how helpful it has been. (CHECK ONE)

- EXTREMELY HELPFUL 63 []-1
- SOMEWHAT HELPFUL []-2
- NEITHER HELPFUL NOR UNHELPFUL []-3
- SOMEWHAT UNHELPFUL []-4
- EXTREMELY UNHELPFUL []-5

How likely is it that you would seek out psychotherapy should emotional problems develop? (CHECK ONE)

- EXTREMELY LIKELY 64 []-1
- SOMEWHAT LIKELY []-2
- NEITHER LIKELY NOR UNLIKELY []-3
- SOMEWHAT UNLIKELY []-4
- EXTREMELY UNLIKELY []-5

15. Have you ever taken any psychology courses?

YES 65 []-1

About how many? _____ 66-

NO []-2 (SKIP TO Q.18)

16. If you have taken psychology courses, was psychology either your major or minor in college?

YES 67 []-1

NO []-2

17. Have you taken graduate level courses in psychology?

YES 68 []-1

NO []-2

69-70R

(PLEASE TURN PAGE OVER)

18. Are you a female or a male? (CHECK ONE)

FEMALE	71	[]-1
MALE		[]-2

19. How old are you? (CHECK ONE)

19 OR UNDER	72	[]-1
20 TO 29		[]-2
30 TO 39		[]-3
40 TO 49		[]-4
50 TO 59		[]-5
60 TO 69		[]-6
70 OR OVER		[]-7

20. What is your marital status? (CHECK ONE)

SINGLE	73	[]-1
DIVORCED OR SEPARATED		[]-2
MARRIED		[]-3
WIDOWED		[]-4

21. What is your highest educational degree? (CHECK ONE)

JUNIOR HIGH SCHOOL	74	[]-1
HIGH SCHOOL		[]-2
COLLEGE		[]-3
MASTERS		[]-4
Ph.D		[]-5
LLD		[]-6
M.D.		[]-7
OTHER		[]-8

22. What kind of work do you do? (CHECK ONE)

BUSINESS	75	[]-1
PSYCHOLOGY		[]-2
SCIENCE		[]-3
OFFICE WORK		[]-4
LAW		[]-5
MEDICINE		[]-6
OTHER		[]-7

(PLEASE INDICATE)

23. Please indicate your total family income. (CHECK ONE)

UNDER \$20,000	76 []-1
\$20,000 - \$39,999	[]-2
\$40,000 - \$59,999	[]-3
\$60,000 OR MORE	[]-4

24. Would you like a copy of the results of this survey? (CHECK ONE)

YES 77 []-1 IF YES, PLEASE WRITE YOUR NAME AND ADDRESS HERE:

NO []-2

THANK YOU VERY MUCH FOR YOUR ASSISTANCE.

PLEASE RETURN THIS QUESTIONNAIRE IN THE PRE-STAMPED ENVELOPE AS SOON AS POSSIBLE.

Reference Notes

1. Shaw, J. Personal communication, October, 1982.
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