

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI

A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
313/761-4700 800/521-0600

'Negative Perceptions Of Psychology: The Reflection Of An
Identity Crisis

by
Hugh "Stephenson"

A Dissertation Submitted
In Partial Fulfillment of the
Requirements for the
Doctor of Philosophy Degree

Department Of Psychology
in the Graduate School
Southern Illinois University
at Carbondale
October 1994

UMI Number: 9536597

UMI Microform 9536597
Copyright 1995, by UMI Company. All rights reserved.

**This microform edition is protected against unauthorized
copying under Title 17, United States Code.**

UMI
300 North Zeeb Road
Ann Arbor, MI 48103



Dissertation Approval
The Graduate School
Southern Illinois University

July 28, 19 94

I hereby recommend that the dissertation prepared under my supervision by

HUGH STEPHENSON

Entitled

Negative Perceptions of Psychology:

The Reflection of an Identity Crisis

be accepted in partial fulfillment of the requirements for the

DOCTOR OF PHILOSOPHY degree.

In Charge of Dissertation

Head of Department

Recommendation concurred in

- 1.
- 2.
- 3.
- 4.
5. _____

Committee
for the
Final Examination

AN ABSTRACT OF THE DISSERTATION OF

HUGH STEPHENSON, for the Doctor of Philosophy degree in Psychology, presented on July 28, 1994 at Southern Illinois University at Carbondale.

TITLE:

Negative Perceptions Of Psychology: The Reflection Of An
Identity Crisis

MAJOR PROFESSOR: Ronald Schmeck, Ph.D.

This study examined critical attitudes toward psychology, developing and using the Attitude toward Psychology scale and examining philosophical differences reflected in the Epistemic Differential (Humanistic and Scientific approaches). Attitudes toward psychology in general were examined as were attitudes toward psychology as a science and attitude toward psychotherapy. This study examined the responses from 310 subjects in four groups. Graduate psychology students, graduate english students, undergraduate non psychology majors and undergraduate psychology majors. Major was found to influence subjects global attitudes toward psychology. Graduate students were more critical of the scientific basis of psychology than undergraduates but not of psychotherapy. When attitude toward psychology was controlled for openness using the NEO-PI scale, major and graduate versus undergraduate status were found to influence global attitudes.

Philosophical preferences were only predictive of attitudes toward psychology for psychology graduate students. Sex differences were also examined and women were found to be more humanistic than men and less critical of both the scientific approach to psychology and of psychotherapy. Religiosity was examined and no effects were noted.

TABLE OF CONTENTS

<u>Chapter</u>	<u>Page</u>
ABSTRACT	ii
LIST OF TABLES	vi
INTRODUCTION	1
Negative perceptions of psychology: Empirical research	5
The Negative Perception of Psychology: Popular Culture	11
The Negative Perception of Psychology: Psychology's Identity crisis	20
Types of Negative Perception	28
Ideological and Philosophical Differences In the Perception of Psychology	32
Thesis	39
Hypotheses	40
Hypothesis 1	41
Hypothesis 2	41
Hypothesis 3	42
Hypothesis 4	42
Hypothesis 5	42
Hypothesis 6	42
Hypothesis 7	43
Hypothesis 8	43
Hypothesis 9	43
Hypothesis 10	43
Hypothesis 11	43
METHODOLOGY	44
Subjects and Procedure	44
Instruments	45
The Scientist-Practitioner Inventory (SPI)	45
The Epistemic Differential	45
Attitudes Toward Psychology (ATP)	46
The Openness scale from the NEO PI	46
Religiosity	47
RESULTS	49
Scale Development	49
Hypothesis 1	50
Hypothesis 2	53
Hypotheses 3,4	55
Hypotheses 5,6	56
Hypothesis 7	57
Hypothesis 8	57
Hypothesis 9	58
Hypothesis 10	58

TABLE OF CONTENTS (continued)

<u>Chapter</u>	<u>Page</u>
Hypothesis 11	58
Additional Analyses	59
DISCUSSION	60
Negative attitudes toward psychology	60
Philosophical Determinants	62
Sex and Other Factors	64
REFERENCES	69
APPENDICES	73
Appendix A	73
GENERAL INSTRUCTIONS	73
Appendix B	
ANCOVA	87
VITA	89

LIST OF TABLES

<u>TABLE</u>	<u>PAGE</u>
Table 1 Negative Perceptions of Psychology: Empirical Findings	10
Table 2 Negative Perceptions of Psychology :Popular Culture . .	21
Table 3 Negative Perceptions of Psychology: Psychologists . . .	29
Table 4 Types of Negative Perception Criticism of Psychology as Unscientific	30
Table 5 Differing Perceptions of Psychology	38
Table 6 Scale properties for the total sample	48
Table 7 Mean attitudes toward psychology.	51
Table 8 Anova, Attitude Toward Psychology by Status and Major .	52
Table 9 Correlations between Epistemic Differential and Scientist Practitioner Inventory	54

INTRODUCTION

Psychologists and particularly clinical psychologists appear to be a pervasive feature of twentieth century American cultural landscape. The population of the United States has doubled since 1937. In the same period the number of psychologists has increased twenty fold. Today, the current membership of the American Psychological Association (APA) is over 100,000. This number includes both clinical and experimental psychologists. There are many other psychologists who are not members of APA. The number of state licensed psychologists in 1975 was 20,000. By 1985 that number had more than doubled to 46,000 (all states) and presumably has grown since (Sechrest 1992). The vast majority of these licensed psychologists are in the business of selling "Psychological Services", mostly assessment and some form of psychotherapy, to the general public. As with medical doctors, most are reimbursed through the third party payment system of public and private insurance companies. Considerable commercial interests are at play here.

The growth of the field has been logarithmic and shows no signs of abating. Yet fundamental questions (what is this discipline psychology and what is a psychologist?) have yet to be answered satisfactorily by both the public and by those people who call themselves "psychologists." One reason these questions have not been answered may be

because both the roles that psychology has played in contemporary culture, and the professional self perceptions of psychologists have changed rapidly in the last 100 years as the discipline moved from a philosophical discourse to the applied practice of "Therapy."

This rapidly developing and evolving discipline has been plagued throughout its short history with an identity crisis. The identity crisis manifests in both the public perception of psychology and psychologists, and in the perceptions psychologists have about themselves. It is reflected in the professional infighting that recently resulted in the secession of a large number of APA members to form the American Psychological Society (APS), an organization which they felt better reflected their identity. It is reflected in the concerns psychologists express about the quality, utility and scientific rigor of their peers' work. It is reflected in the skepticism that many non-clinical psychologists express about the scientific basis of psychotherapy, it is reflected in the articles that ask of the public "Why don't they understand us" Benjamin (1986), and it is reflected in every faculty meeting across the country when academics gathering under the rubric of psychology find they do not share the same basic assumptions about the methodology or even the subject matter of the "science" of psychology.

In addition to this identity crisis, psychology and psychologists have consistently drawn criticism from a

variety of sources. The criticism has not impeded the growth of the discipline, but its tone and content has been fairly consistent over the last 100 years. Lay, literary, and scientific critics have attacked the fundamental assumptions of the discipline and sometimes have derided its attempts to establish a scientific understanding of people and their interactions. The criticism sometimes even takes the form of a public and personal attack, and to some degree a caricature of the psychologist has been established. In the following pages these criticisms will be explored and enumerated.

The successes of psychology have been well documented and will be referred to below. Even if there is not agreement regarding all the positive conclusions psychologists have drawn about psychology this is not the place to consider or dispute them. My intention here is to focus on the negative perception of psychology, specifically the failure to earn the credibility of a section of the public and the failure to earn the credibility of many psychologists. The varieties of negative perception will be explored and an attempt to characterize them will be made.

Because psychological theory, whether it be couched in dynamic terms of repression or cognitive behavioral terms of cognitive dissonance, leads us to conclusion that psychologists are the least likely to perceive the failings of psychology, this study will consider and include

explorations of the identity crisis and negative public perception of psychology from sources other than the empirical literature. Historically some of the most insightful criticisms of psychology have arisen from other disciplines. Linguistic theory undermined behaviorism and feminist theory undermined psychoanalysis. Consequently, portions of this review may appear alien in their origin, style and content to the psychologist, and it is precisely for this reason that they are useful. With a somewhat anthropological perspective, the position of psychology can be better better triangulated.

As already noted, the focus here is the perception of negative aspects of psychology and psychotherapy. These negative perceptions are held by both the psychologist and the layperson. Evidence of these negative perceptions may be reflected in three places. They are reflected in the infighting of psychologists, and in the public image of psychologists. The public image of psychology can be reflected in two ways, firstly in empirical survey research and secondly in the reflections on psychology found in the successful literature of the day that reflects the public consciousness. Thus there are three sources that help explicate the construct of negative perceptions of psychology and enumerate them: (a) survey research, (b) popular culture, and (c) psychologists' own reflections. The survey research on the image of psychology will be examined first.

Negative perceptions of psychology: Empirical research

The "public image" of, or opinions about, psychology has been the subject of research since the 40's and even earlier and specific negative opinions toward psychology appear to be a longstanding feature of it's public image. The first major survey was that of Guest (1948). Although 62% of his sample reported a positive overall impression of the field, many registered negative opinions on specific questions. Of five occupations, psychologist was the one they would least like for their children. This finding was replicated in 1967 (Thumin and Zebelman). Respondents overwhelmingly voted psychologists as the persons they felt most ill at ease with, and almost 40% believed psychologists to be more odd than chemists or engineers. About 10 years later Witley (1959) found that only 50% of respondents believed that science would lead to an understanding of human behavior. This finding was replicated in 1984 (Kabatznick). Kabatznick also found that less than half the respondents believed psychologists to be more perceptive than other people and a little more than half believed that psychologists helped people they were treating.

Research touting itself as presenting data on the public image of psychology usually does no such thing. In recent history the "definitive" empirical article on the subject is that of Wood, Jones and Benjamin (1986). Published in the American Psychologist, it is entitled

"Surveying Psychology's Public Image." Granted that a representative sample generalizable to the population is difficult if not nigh impossible to get, it is misleading to imply that this article reflects an accurate cross section of the American public. The methodology looks impressive. The authors conducted a telephone survey in four metropolitan areas using a random digit dialing technique, generating 200 responses. This may look like an improvement over the usual student sample but in reality, at least in the latter case, one can make useful statements which characterize the sample. The authors identify several biases in their sample, a slightly younger than average age than the census would indicate, a slight over representation of women and an over representation of those with better education. These biases are dismissed with the statement that "there was a reassuring degree of similarity between respondent's characteristics and the census data".

There are several selection factors involved in this research which render the findings interesting but of no practical use (as far as generalization is concerned). Firstly a sample of two hundred cannot be generalized to the U.S. population. About thirteen hundred responses are needed when the results are to be generalized to this larger group. The authors only surveyed attitudes from metropolitan areas. Is the reader asked to believe that people outside cities would hold similar attitudes? Furthermore, a refusal rate of 40-45% means that the

interviewers spoke to people who either had the time or the inclination to chat and not those who do not like being surveyed at home or were too busy. This response rate is low by telephone survey standards. Finally, although random digit dialing is a useful technique, it eliminates automatically that 10% of households (and probably some greater percentage of the population) who do not have phones not to mention those who do not live in a house. Anyone who has ever worked in a community mental health center will of course realize that this methodology eliminates some of the most frequent users of psychological services. In the final analysis, the data collected although interesting, cannot be identified as the opinion of the public or any meaningful subset of the public. It is also worth noting that it was found that half of this "random sample" had taken one or more psychology courses! I would tacitly suggest that the selection process suffers from a subtle bias towards a homogeneity of people that would not only be well disposed toward psychology, but unusually, would actually know what the construct might mean! These problems are highlight to illustrate the resistance, whether unconscious or the result of cognitive dissonance, to addressing the problem.

Eighty four percent of respondents in this study believed psychology to be a science. In their conclusion the authors main cause for pessimism is the fact that the public does not appear to understand the range of expertise

psychologists have to offer. They do not focus on the more serious criticisms that were uncovered. Recasting their findings and stating them in the negative, 42% believe psychology has been primarily used to control and manipulate people, 60% believe that psychology is incompatible with their religious beliefs and two thirds believe that psychology has supported liberal political positions (this last finding is one belief that is shared by psychologists also: see for example Adelson; 1990). They found a positive relationship between a favorable attitude toward psychology and beliefs that psychology is a science, has not been used to control or manipulate, and is compatible with subjects religious beliefs. This obviously suggests that there is a section of the public who believe psychology is not a science, has been used to manipulate, and is incompatible with religious beliefs. In spite of the article's optimistic tone the results do not provide a consistent view on public perception of psychology as a science.

Most of the other research on the public perception of psychology focuses on the public's ability to differentiate between psychologists and other related professions and, as such, is trivial criticism. Webb and Speer (1985) generated favourability ratings and found psychologists slightly behind psychiatrists and ahead of physicians. Warner and Bradly (1991) found that students thought counsellors more "caring" than psychologists. Traditionally such articles

lament the inability of the public to distinguish the relative areas of expertise of psychiatrists, psychologists, and counsellors. However because these articles do not address the specific criticisms of psychology, there needs to be more specific enumeration of specific negative opinions.

One study specifically examined the lay beliefs about psychotherapy and therapists. Furnham and Wardely (1990) examined the responses from 200 subjects in England. While they found a mostly positive view of psychotherapy, negative beliefs included the idea that therapy is addictive, that subjects were left alone between sessions and that subjects believed that clients were attracted to their therapists. In terms of demographics they found older people to be more skeptical of therapy and, interestingly, better educated people to believe less in the efficacy of therapy than less well educated people. Subjects with more experience of therapy were less optimistic about progress in therapy.

There is of course, a strong body of empirical evidence to support the efficacy of psychotherapy and it is surprising that many of these negative beliefs are held in the face of this knowledge. Research reviews such as those of Lambert Shapiro and Bergin (1986) or Luborsky, Crits-cristoph, Mintz and Aurebach (1988) as well as meta-analytic studies such as those of Smith and Glass (1977)

have found that almost two thirds of clients improve as a result of therapy.

However in the empirical literature, there is strong evidence that is consistent over time that negative opinions are held about psychology. A summary of these negative findings from the studies reviewed can be seen in Table 1.

Table 1

Negative Perceptions of Psychology: Empirical Findings

People do not regard psychology as a desirable profession for their children.

A scientific approach does not help understand human behavior.

Psychology is not science.

Psychotherapy does not work.

Therapy is addictive.

Clients become attracted to their therapists.

Psychologists are no more perceptive than the rest of the public.

Psychologists themselves are odd.

People feel uncomfortable around psychologists.

The expertise of psychology is unclear to the public.

Psychology has been used to control and manipulate.

Psychology is somehow incompatible with religion.

Psychology has supported liberal political positions.

In addition to the findings themselves, there is some evidence regarding the demographics and dynamics of these beliefs. It is known that skepticism toward psychology is positively correlated with age (Furnham & Wardely 1990). It is also noted that optimism about the outcome of psychotherapy is negatively correlated with education and experience of therapy (Furnham & Wardely 1990). It is also known that beliefs that psychology is not a science, has been used to manipulate, and is incompatible with religious beliefs are positively correlated (Furnham & Wardely 1990)

Negative findings are uncovered in empirical studies rarely, because they are not often the focus of the study. The findings are infrequently discussed or explored at length. They are, in a real sense, insults to the professional choices made by the researchers conducting such studies. In an effort to explicate these critical constructs, sources other than academic journals for must be examined.

The Negative Perception of Psychology: Popular Culture

In evaluating the discipline of psychology most researchers only consult the writings of psychologists. At first glance this may appear like the most intelligent thing to do; psychologists have written a lot more about their discipline than any one else. They are in a privileged position in terms of understanding the theoretical positions and activities of psychologists.

However, they do suffer from several disadvantages. Firstly, when the public is asked it's opinion, it is psychologists who are framing the questions. Undoubtedly the public would frame them in a different manner if they were left to do the task on their own. The public's questions about psychology would take a different form. Secondly, the reflexive nature of the task (psychologists studying psychologists) dictates that only a narrow perspective can be taken since the psychologist frequently cannot address the underlying assumptions of the discipline purely because they are "underlying" (not accessible to consciousness). To examine themselves dispassionately, psychologists must step outside their identity as psychologists. This being at least difficult and at most never completely achieved, it is common practice in science to enlist an objective observer, a party with no vested interest in a positive or negative outcome of such an evaluation. But to whom do we look for such an evaluation?

Theories of psychology, particularly psychoanalytic psychology, have been applied to literature for the last 100 years. Literary scholars have also turned the microscope around and have applied themselves to the study and evaluation of psychology and particularly psychotherapy, albeit in a less formal manner. Accounts of, and references to psychotherapy and psychology are sprinkled throughout English literature. Sometimes it is only a fleeting reference, other times psychotherapy or

psychology in general is the explicit focus of authors, playwrights and poets. Sometimes authors or poets are also psychologists and the two activities share a common ground (i.e., their specific task is interpretation of the human condition). Other groups who share the same ground are theologians, artists and philosophers.

It is not surprising that writers should find themselves addressing psychology for several reasons. Writers have long been in search of the self, attempting to understand and communicate the quality of human experience, the motives of humans and the structures of the mind. Some literary structures, particularly the French, have relatively little description of a story per se, but rather provide a detailed account of the mental events that precede and follow action. The observations of literary folk, therefore, are in a very real sense "expert opinions".

Obviously, the literary process is not systematic or programmed nor does it concern itself with issues of validity, except possibly construct validity which is far more important in literature than in psychology. Thus, the strength of literary criticism of psychology lies in its qualitative nature and its development of constructs. It also finds strength in the form that the data is presented. The ecological validity of successful literary conclusions are much stronger than those of psychology and it is for this reason that we probably chose Joyce over the Journal

of Abnormal Psychology for pleasurable and stimulating reading.

In English literature it is possible to trace a clear process of enchantment, if not infatuation, followed by suspicion, ending in open hostility towards psychology and specifically psychotherapy. This survey is by no means meant to be comprehensive, nor is this emergent theme the only one that might present itself, but it is certainly one which suggests itself. This rise and fall corresponds to the initial experiments in therapy at the fringes of society, when pioneers like Freud could only be characterized as radical, to the popular acceptance of psychology and its proliferation in society in the 40s to its complete institutionalization today.

Early distrust is reflected in William Burroughs' account of his own experience in therapy (in the preface to *Junkie* his first work originally published under a pseudonym in 1928). He relates that he thought his analyst did not approve of his orientation, Burroughs being homosexual, and noted his analyst's hostile reaction to Burroughs' quitting therapy at a "critical point." Ultimately the author suspects that he was more pleased with the results than his analyst. Here the genesis of the idea that the therapist and patient might somehow be in conflict over the creation of a particular outcome for the patients is noted.

In a passing critical quip G. K. Chesterton notes that "psychotherapy is like confession without absolution " clearly implying that confession has at least one advantage over psychotherapy. Among psychologists, the superego has long been used in an almost interchangeable manner with the construct of conscience. The super ego is beaten into the young and from time to time needs to be reinforced. Many clients are required to attend therapy because they have failed to conform to society's norms and many other clients require themselves to attend therapy because they see themselves or their experience of life to be "abnormal". They "confess" their abnormality and consequent spiritual pain and although the therapist does not explicitly forgive them, they imply that the client must forgive themselves while at the same time "normalizing" the clients experience. Chesterton is acknowledging the close relation between psychology and religion, a relationship that has not escaped the attention of religious leaders.

The possible between psychology and religion was directly addressed by Pope Pius XII in an speech to the fifth international congress of psychotherapy and Clinical Psychology in 1953:

Man is an ordered unit and whole, a microcosm, a sort of state whose charter, determinedly the end of the whole subordinates to this end the

activity of the parts according to the true order of their value and function. This charter is in the final analysis of an ontological and metaphysical origin, not a psychological and personal one. There are those who have thought it necessary to accentuate the opposition between the metaphysical and the psychological. A completely wrong approach! The psychic itself belongs to the domain of the ontological and the metaphysical.

A clear exposition of some of the fundamental problems with the process of psychotherapy as an exercise in bad faith is made by Henry Miller in "Sexus"(1953). Miller describes an experience where he becomes so annoyed with the wittering of an acquaintance who is a psychiatrist, that to shut him up he tells him that he was analyzed by Otto Rank while in Europe. His friend immediately asks that Miller pass on the favor and be his lay analyst (not realizing as Miller knew that Rank himself had never been analyzed). What starts for Miller, a well educated individual who knows both the technique and metaphysics of psychoanalytic theory, as a joke becomes a serious analysis of therapy as the game is played out. As an evaluation of therapy, this account is particularly useful because as Miller starts from a point of complete skepticism he does come around to identifying the redeeming qualities of the

process as well as pointing out its flaws. There are many themes expressed in the twenty odd pages devoted to the account.

Firstly, Miller addresses the fact that his friend must be analyzed because he is neurotic, reminding him that he "could not possibly be an analyst unless he was neurotic himself" and that if he was not, Miller would make him so in the course of therapy and then cure him. Although joking, Miller is reflecting the common belief that psychotherapists are themselves a little mad. This belief is long standing and spans cultural boundaries (Fuller Tory, 1981).

Miller also notes that once he stepped into the role he began to feel that he could be of real help realizing the inherent placebo power in the relationship society has constructed. "Indeed, once having decided to play the role I was thoroughly in it and ready for any eventuality. I realized at once that by the mere act of assuming the role of healer one becomes a healer in fact" (p.415) and later "everybody becomes a healer the moment he forgets about himself", This fact has been well established in empirical studies and in the cross cultural anthropological setting (see for example "witch doctors and psychiatrists" Fuller Tory, 1981) The usefulness of the power inherent in the roles is mediated by his realization that therapy is an exercise in thought and that change is brought about by action.

Of Miller's particular patient Kronski, a comment is made which is directed at psychologists in general that he seemed "congenitally incapable of realizing that there is inherent significance in everything. He wasted himself in an effort to prove that there could never be any final proofs, never for a moment conscious of the absurdity of defeating logic with logic." (p.423)

Of analysis in general, he notes that there is something about it that reminds him of the "operating room." By the time one comes to analysis it is already too late. "Confronted with a battered psyche the only recourse open to the analyst is to do a plastic job. The good analyst prefers to give his psychic cripple artificial limbs rather than crutches, that's about the long and the short of it" (p.423). The most successful analysts he had known had recovered from their own crippledom and "because they had learned to use their own artificial limbs with ease and perfection"; they were good demonstrators. However, probably the most redeeming aspect of the process according to Miller was the belief that no matter how far gone, anyone could be saved with enough time and patience.

By the sixties the now familiar face of "the psychologies" as a tool of repression had developed. In Ken Kesey's work "One Flew Over the Cuckoos Nest" (1960) group therapy is presented as a form of brutal involuntary soul baring and the creation of a communal super-ego (guilt complex) that along with the iatrogenics of

institutionalization ultimately destroys the only sane individual there.

A review of quotes available for orators on the subject of psychology finds mostly criticism. "Popular psychology is...superstition worthy of the most flourishing days of the medicine man" (Dewey), and "Psychology is as unnecessary as the directions for using poison" (Kraus) and even "Psychoanalysis is the disease whose symptoms it purports to cure" (Author unidentified)

Criticism of psychotherapy is not limited to particular forms of it such as psychoanalytic or group therapy. Behavior therapy in particular has been characterized as a form of communal oppression as well as individual oppression in Kubrick's Clockwork Orange. In fact, the popular image of behaviorism has been so poor in the past that the image has been the subject of empirical study and most unnervingly, behavior therapists report that given a choice they would chose psychoanalytic therapy for themselves.

Many writers have detailed the ravages of psychology on women in particular. "The girlwas gentle, generous veteran of mechanical psychiatry in a dozen other hospitals. Her memory had been ravaged but her sickness was still intact" (H. Green, *I Never Promised You a Rose Garden*, 1964). Shulamith Firestone in "The Dialectic of Sex" (1970) identifies psychoanalytic theory as the reason for the backslide in the women's movement in the early part

of this century and as a tool of oppression against women. Feminist writers in particular have attacked psychology and psychological theory using its own language against it to show how as a patriarchal theory it has been used to oppress women. Feminist criticism has carried this thesis further to the point of developing a "Feminist Therapy" which is unusual among therapies in that it explicates its own philosophical and political assumptions.

There is no mechanism for systematically sampling the perception of psychology in popular culture since the raw data comes in too many forms, for example a non verbal reaction at a social gathering, a newspaper article, a passing reference in a book or a comment exchanged over a cup of coffee. However the views that emerge in the above sampling appear to reflect to some degree the criticisms noted in the more systematic survey research.

A summary of these negative findings from the studies reviewed can be seen in Table 2.

The Negative Perception of Psychology: Psychology's
Identity crisis

Psychology has an acute identity crisis. The defining activity or subject matter of the discipline is a matter of great debate. Widely different opinions are held so it is not surprising that some of the most acute critics of psychology come from within psychology itself. The identity

Table 2

Negative Perceptions of Psychology :Popular Culture

That the therapist and client might have different ideas about the outcome of therapy.

That there are strong parallels between psychotherapy and religion.

That psychology and religion are sometimes seen as incompatible or alternatives.

That psychologists are partly crazy themselves.

That Psychology is quackery.

That the power of psychology is in it's placebo value.

That clients are somehow inadequate individuals.

That Psychology is yet another way of socializing people.

That psychology has been used to oppress and coerce.

That this is true particularly of behavioral psychology.

That this is true particularly of Psychoanalytic psychology.

That psychology has been used to oppress and coerce women and minorities in particular.

of psychology is split in several ways and many people have suggested that this identity crisis will not ultimately be resolved within the current framework of psychology.

The identity crisis of psychology is not a recent event. Before looking at the contemporary situation an overview of the historical situation will put the current crisis in context. The confusion regarding the public's image of psychology is understandable given the rapid change in the nature of psychology itself, from a branch of philosophy to medico/clinical application in a relatively short time. The linguistic meaning of the term has changed. The 1850 edition of Webster's dictionary defines psychology as "a discourse or treatise on the human soul; or the doctrine of man's spiritual nature" (p.886). By 1989 It is "The science of mind and behavior." Psychology has moved rapidly from philosophical discourse to scientific study and application. As the definition of psychology has been changing there has been a consistent effort to market the new psychology to the public at large.

Eleven years before Jastrow wrote in 1908 that the public perception of psychological labs was a place for "mental healing, or telepathic mysteries or spiritualistic performances" the APA had opened an exhibit at the world's fair in Chicago in an effort to educate the public. They did so again at St. Louis in 1904 for the Louisiana Purchase Exposition. This marketing exercise did not please all psychologists such as William James who ridiculed it.

Today the APA still finds the need to educate the public and market psychology, at the same time defending itself from the criticism of its peers in science. The practice of marketing has been followed in England in 1985 when the Welsh branch of the British Psychological Society held a fair to advertise the wares of psychology. Even at the time of writing, the APA is running such a fair in the US.

The concerted effort to "sell the science" is partly a reaction to a sometimes hostile political and social climate. Throughout the eighties the APA and individual psychologists found it necessary to defend against critics. Senator William Proxmire was sued by Hutchinson for maligning his research and reputation through the vehicle of a "golden fleece" award for wasting taxpayers money on useless psychological research. The National Institute of Mental Health curtailed funds for training in clinical psychology and the Veterans Administration eliminated its practicum program, and curtailed its funds for internships. The National Science Foundation reduced its budget for research in the behavioral sciences and removed psychology from its list of funded disciplines in its science education directorate. Animal rights activists found supporters in biomedical sciences who stated in congressional testimony that they could not attest to the value of animal research in psychology.

The image problem appears to be a virus unwilling to leave the host. Even the title of an article published in

the American Psychologist "Why Don't They Understand Us: A History of Psychology's Public Image" (Benjamin, 1986) reflects the historical and current dissatisfaction with what psychologists perceive their public image to be. But who exactly does the public think it is criticizing? What prototypical psychologist do they have in mind? It is already known that what it means to be a psychologist obviously means different things to different people who call themselves psychologists. In fact the daily activities of two individuals who both term themselves psychologists may have nothing in common. The only thing that allows them to share the same label is that their subject matter is in some ways related to the human experience.

Recent evidence of severe conflict in terms of professional identity comes in the secession of the experimentalists from the American Psychological Association to form a body that they felt better reflected the values and goals of their "Psychology." It was claimed that APA had become no more than a lobbying group for clinical commercial interests. It has been suggested that part of the reason for the domination of APA by the clinicians is that academic psychologists have their institutional affiliation needs met in their day to day setting and have less need of a professional organization (Campbell, personal communication 1992), Clinicians working outside the institution have more motivation to be involved

in the professional body as a means of creating their own identity.

This division within psychology leads experimental psychologists to be among the most skeptical of psychotherapy's critics (not that clinicians do not regularly deride the efforts of experimentalists). This is particularly worrying since they are among the most informed body of critics. More than one third of nonclinical psychologists have doubts that therapy has any positive effect and only three out of five believe that clinical training helps improve the skills of a clinician over and above the abilities of an untrained individual with good interpersonal skills and almost one third thought that the training itself was part of the reason for the ineffectiveness of therapy (Hartnett, Simonetta & Mahoney 1989). Given that the most serious challenge to the efficacy of therapy was made in 1952 by Eysenck, it might be assumed that the science of psychology has had ample time to empirically demonstrate its effects. While there now exists a large body of psychotherapy outcome literature, it has obviously failed to win over a substantial minority of experimental psychologists. The skepticism translates into behavioral intention in that only half of experimentalists would recommend a clinician they know to a stranger and three quarters said they themselves would not consult any clinicians they know (Hartnett, Simonetta & Mahoney 1989).

A recent pessimistic history and evaluation of clinical psychology's current position is presented by Lee Sechrest of the University of Arizona in an APA centennial feature article in the Journal of Consulting and Clinical Psychology (1992). Sechrest compares the current state of clinical psychology with the predictions of Woodworth made in 1937. He "unfortunately" notes that the prophet was perfectly correct when he noted in 1937 that "Psychology must advance in a less spectacular way" (p.16). Sechrest says that while "a good bit of progress" in the scientific aspects of the field may legitimately be claimed, progress is however, clearly incremental rather than stepwise" (p.19). At the same time he believes that clinical psychology has strayed far from the path of science and if "psychology had been true to the precepts of the scientist practitioner model, it would have been a smaller profession"(p.19). Psychology, he feels, has only a modicum of clinically relevant knowledge and overcompensates (and he uses this in the Adlerian sense!) for this deficiency. Here he restates David Shadow's (1965) claim that psychology is immodest. In terms of the gain of scientific knowledge that can be applied to practice, he notes that while gains have been made psychology has not discarded the guesswork and half knowledge, and worse still he observes that not all clinical psychologists agree that psychology even should be scientific!

There are no standards in clinical psychology according to Sechrest, and the proliferation of training programs has set the licensing criterion to beneath the lowest common denominator, again referring to Shadow's observation in 1965 that "standards seem to have been generally lowered" (p.358). Sechrest then asks the rhetorical question for which we already have an empirical answer, "How would you feel about hiring or referring a family member for help to a randomly selected graduate of our current training programs?" The fact that this question is posed in a centennial-featured APA article indicates how deeply doubts are held. An attempt to formalize peer review in the late seventies and eighties met with little response and it is now impossible to distinguish between the legitimate and the charlatan practitioners. Certainly licensure or membership of APA are not satisfactory criteria. Sechrest cites an advertisement in the newsletter of the California Psychology Association by a good standing member of APA which advertises therapy to replace the "beta elements" that "actually exist" that must "be put back in the patient" or the Ph.D APA member who wrote a book on experiences of extraterrestrial abduction, including techniques to discover if you have had a close encounter. The real problem is a more insidious one. The obvious quacks are few, and pose far less threat than the illqualified and underqualified and sloppy practitioners

who can do as they please because they answer to no one except their clients.

His worrying conclusion is that psychology as an institution is afraid to expose charlatans for fear of having to defend itself publicly. His final conclusion is that there is a widespread malaise in the field and that this is reflected in the formation of the APS because psychology "could not come to terms with its scientific roots".

Criticism of psychology comes from within also. Many of the criticisms noted have been reflected empirically and in the popular literature. The criticisms made by psychologists and one legislator of psychologists and psychology are seen in Table 3

Types of Negative Perception

It is interesting to note that there appears to be a large degree of agreement and overlap between the types of criticism uncovered in the previous three sections, suggesting strong agreement among the empirical literature, popular culture and psychology's self criticism. Certain categories of criticism suggest themselves. There appears to be three main forms of criticism: (a) criticism of psychology as a science; (b) criticism of psychotherapy specifically; and (c) criticism of the character of psychologists.

Table 3

Negative Perceptions of Psychology: Psychologists

Psychological research is a waste of money.

Psychology is not understood by the public.

The domain of psychology is not well defined.

Psychology is not science.

Psychology is pompous.

Psychology has no standards.

Therapy does not work.

Clinical training is part of the problem.

In the first form of criticism there are challenges to the scientific basis of psychology. Psychology is not seen as a science. The assertions that the human being is fundamentally not amenable to scientific study anyway, and that psychology has been used as a means of social control are made. Some specific schools of therapy have been singled out for criticism in this respect. The second form of criticism takes the view that psychotherapy is an addictive form of quackery with no scientific basis, whose main consumer is a somehow inadequate individual, and that any benefits accrued are the result of placebo effects. The third form of criticism deals with the negative stereotypes of psychologists themselves. They are seen as neurotic, odd

and uncomfortable to be around. People do not regard psychology as a desirable profession for their children.

Table 4 presents a comprehensive list of all the criticisms abstracted from the previous three sections and arranged according to content. Based on this list a twenty nine item instrument was developed and can be found in Appendix A.

Table 4

Types of Negative Perception Criticism of Psychology as Unscientific

Psychology is not science.

Psychology is quackery.

Psychological research is a waste of money .

A scientific approach does not help understand human behavior.

The expertise of psychology is unclear to the public.

Psychology has been used to oppress and coerce.

That this is true particularly of behavioral psychology.

That this is true particularly of psychoanalytic psychology.

That psychology has been used to oppress and coerce women and minorities in particular.

Psychology has been used to control and manipulate.

Psychology is somehow incompatible with religion.

Table 4 (continued)

Psychology is pompous.

Psychology has supported liberal political positions .

Psychology is not understood by the public.

The domain of psychology is not well defined.

Criticism of Psychotherapy

Psychotherapy does not work.

Clinical psychology has no standards.

That the power of psychotherapy is in its placebo value.

Therapy is addictive.

Clients become attracted to their therapists.

That clients are somehow inadequate individuals.

That the therapist and client might have conflicting goals in therapy.

That Psychotherapy is yet another way of socializing people.

That there are strong parallels between psychotherapy and religion.

That psychology and religion are sometimes seen as incompatible or alternatives.

Criticism of the Character of Psychologists

That psychologists are partly crazy themselves.

Psychologists are no more perceptive than the rest of the public.

Psychologists themselves are odd.

People feel uncomfortable around psychologists.

People do not regard the psychology as a desirable profession for their children.

Ideological and Philosophical Differences In the Perception
of Psychology

These divisions and conflicts within psychology have been characterized as ideological differences and have been explored experimentally. It is a thesis of this study that these ideological divisions in psychology and among psychologists help contribute to understanding of the criticisms levelled at psychology.

In two articles which address the identity crisis, Koch (1981) and Staats (1981) confirm the problem in their own recommendations: they suggest entirely different paths forward for psychology. Staats recommends the development of a methodological framework to unify the field and recommends social behaviorism as the mechanism to achieve this end. Koch on the other hand believes that a unified psychology is impossible and recommends that "the noncohesiveness of psychology finally be acknowledged by replacing it with some such locution as the psychological studies"(p.268).

The ideological splits within psychology have been addressed by eminent psychologists on a number of occasions. In his presidential address to the division of general psychology Gregory Kimble of Duke university addressed this problem in 1982 and again in the American Psychologist in 1984 in a paper entitled "Psychology's Two Cultures." He states "after more than a century of official existence, it (psychology) lacks a coherent set of values,

there is little harmony among groups of us who practice very different professions and there is even debate over the definition of our subject matter"(P.833). Kimble refers to C.P. Snow's Rede lecture at Cambridge (1964) in which Snow identifies two cultures.

There have been plenty of days when I have spent the working hours with scientists and then gone off at night with some literary colleagues. I got occupied with the problem of what, long before I put it on paper, I christened to myself the two cultures. For constantly I felt I was moving among two groups-comparable in intelligence, identical in race, not grossly different in social origins, earning about the same incomes, who had almost ceased to communicate at all, who in intellectual, psychological and moral climate had so little in common that instead of going from Burlington house to south Kensington or Chelsea, one might have crossed an ocean. (p.2)

Kimble believes that, uniquely in psychology, both cultures are represented. The existence of the two cultures explains much to those who experience, not so much conflict, as an almost complete lack of communication between the cultures. As Kimble notes it is not uncommon to find "in the very same debate, one group may speak vehemently on points that the other group may take as trivial" and adds "none of this will come as news to anyone who has attended the APA Council of Representatives or participated in a departmental faculty meeting" (1984 P.383).

To explore these ideological differences Kimble, uses the "Epistemic Differential." The instrument originally

conceived uses 12 bipolar scales to explore the differences of opinion that exist within psychology. The 12 bipolar scales assessed opinions on such issues as scientific vs. human values, data vs. theory and heredity vs. environment. In his explorations Kimble found APA officers to have more widely differing opinions on the issues than undergraduate students. A similar finding is discussed by Leong and Zachar (1991) when they found graduate students to be more differentiated than undergraduate students in their preferences regarding science vs. practice. This is a function of a selection factor that interacts with the environment into which the graduate students select themselves. In an interesting model that has strong ecological validity, Kimble polled members of four APA divisions: Experimental, Social Issues, Psychotherapy and Humanistic. The differential return rates from each sample betrayed the importance with which surveying was viewed by the groups with the experimental group having the highest return rate and the humanists having the lowest.

In the final analysis it was found that six of the bipolars had greater discriminant validity. These scales were, scientific vs. human values, determinism vs. indeterminism, objectivism vs. intuitionism, laboratory vs. field, nomothetic vs. ideographic laws and elementism vs. holism. In conclusion Kimble hypothesized that the two cultures in psychology are closer than originally thought but the points of disagreements "are not basic trivial

issues, what is at stake is basic, and interestingly, the residual sticking points are identical to those that have existed for millennia"(p.893).

Undergraduate students of psychology are aware of splits within the identity of the psychology that may reflect some of Kimble's concerns. Interestingly advanced students have lower expectations than new students that psychology will have a single unifying theory within the next fifty years (Cupchik, Klajner & Riley, 1984). Advanced students also emphasize its heuristic value rather than its truth value. Students' perceptions of what psychology is are complex. A factor analysis of this data yielded 11 factors with eigen values of greater than one (Cupchik, Klajner & Riley, 1984). The dominant factor was termed professional-healing, the second reflected a desire to grow in wisdom and self awareness. The next three factors reflected differences of opinion. Human versus natural science orientation reflects the belief on the one hand, that the function of psychology is to inquire scientifically and enhance prediction and control over behavior, and on the other hand that the function of psychology is to value learning about how people feel, learning to think about psychology and acknowledging the relation between psychology and the humanities. The fourth factor was concrete vs. abstract orientation. It was related to grade point average: better students did not believe that theories revealed truths. They also valued

service towards others more than students with lower grades, who valued control over behavior. The fifth factor, discipline-profession differentiation, revealed the opposing beliefs that psychology is a hard science in which the discipline is distinguished from the profession. However, the perception that discipline and profession are similar is associated with the belief that psychology is similar to the social sciences and that progress is the result of insight by creative individuals.

Leong and Zachar (1991) have developed a specific instrument to explore theoretical and professional choices that face emerging psychologists. They describe the Scientist-Practitioner Inventory (SCI), the development of which was prompted by the debate over the scientist-practitioner model of training. They note that the research on differences among psychologists has consistently found dimensions that have been variously referred to as objective vs intuitive, objective vs subjective, or in their own terms, scientist vs practitioner.

In their research, which was conducted with graduate students in psychology and both undergraduate psychology majors and non psychology majors, they uncovered several facts that would lend tangential support to Kimble's two cultures-concept. For graduate students the scientist and practitioner scales were negatively correlated ($-.65$), for undergraduate psychology majors they were positively correlated ($.55$) and even more strongly so for non

psychology majors (.75). What this clearly suggests is that as people move toward becoming psychologists they move either into the scientist or practitioner camp to the exclusion of the other. There appears to be a clear process of polarization. The scientist scale is negatively related to social occupational interests and positively correlated with realism on Holland's (1985) VPI. The practitioner scale is positively correlated with the VPI artistic scale and social occupational interests. Although the SPI was not able to distinguish between clinical and counselling students the experimental graduate students scores were more than one half of a standard deviation from the means of the clinical and counselling students.

Ideological differences in the perception of psychology may help us understand some of the specific criticisms of the subject. Having noted that there is some evidence that these ideological differences emerge as the student progresses from undergraduate to graduate and from non-psychology major to psychology major, we might also note that some of these differences may be masked by other variables. One such variable suggested is that of openness. To the degree that graduate populations and psychology majors may have different levels of openness, these may mask types of criticism and should be controlled for.

The Dimensions along which individuals differ with regard to their perception of psychology are summarized in Table 5.

Table 5

Differing Perceptions of Psychology

Scientific Values (Kimble 1986)	Human Values
Determinism (Kimble 1986)	Indeterminism
Objectivism (Kimble 1986)	Intuitionism
Lab Study (Kimble 1986)	Field Study
Elementism (Kimble 1986)	Holism
Nomothetic (Kimble 1986)	Ideographic
Scientist (Leong and Zacher 1990)	Practitioner
Natural Science (Cupchik, Klajner and Riley 1984)	Human Science
Concrete (Cupchik, Klajner and Riley 1984)	Abstract
Hard Science and Profession and Humanity (Cupchik, Klajner and Riley 1984)	Social science

Thesis

Psychology is construed in different ways by both the lay person and the psychologist. There is ample evidence that both psychologists themselves and laypersons harbor critical feelings regarding psychology. There appears to be several different forms of criticism which are not always made by the same groups of people.

It is hypothesized that (a) the criticisms of psychology found in literature and research can be enumerated and used to construct an internally consistent scale, that (b) that these criticisms will be found within student populations to be a function of major and graduate versus undergraduate status, that (c) the pattern of criticism of psychology in these samples can be better understood in terms of the degree to which the individual places importance on the humanistic approach to the discipline as opposed to a scientific one. For psychologists, the perception of psychology is partly a function of their professional and academic interests. The philosophic perspective determines the operational/ecological definition used when thinking about psychology. The criticisms of psychology will be a function of this personal operational definition. It is hypothesized (d) that these operational definitions emerge developmentally as students proceed from undergraduate to graduate status.

It is also hypothesized (e) that the pattern of criticism can be better understood in terms of factors such as sex and religiosity.

Hypotheses

The first set of hypotheses (1 and 2) address developmental aspects of the perception of psychology. Specifically as students progress from undergraduate to graduate status and non-major to major status, they will evidence (a) less criticism of psychology, and (b) greater differentiation in the way they view psychology (i.e. they begin to develop more specific opinions about their philosophy of the science).

The second set of hypotheses (3-7) addresses the impact of ideological orientation on the type of criticisms that are made of psychology. As individuals can be assigned to scientific or humanist camps (and it is hypothesized this will be easier for more advanced students), the form of criticism will become more specific. Those with humanist orientation will criticize the scientific basis of psychology and those with scientific orientation will criticize the basis of psychotherapy. Developmentally this pattern will be more clear for majors than non-majors, within majors it will be more clear for graduates than non-graduates (hypotheses three through seven).

The third set of hypotheses (8-11) address demographic aspects of criticisms which have been suggested from

previous research, regarding factors such as sex and religiosity.

Hypothesis 1

Criticism of psychology as measured by the Attitude Toward Psychology scale (ATP) will be a function of (a) major, psychology majors will view psychology less critically and (b) graduate versus non-graduate status, with graduate students being more critical, and an interaction between status and major was expected. I believe that this effect will be observed after controlling for the personality variable of openness.

Hypothesis 2

The Scientist-Practitioner Inventory (SPI) will be correlated with individual's philosophical positions measured by the modified Epistemic Differential (ED). Specifically people scoring highly on the Practitioner scale (SPI-PRAC) of the Scientist Practitioner Inventory, will also score highly on the human values pole of the ED. High scores on the Scientist scale (SPI-SCI), of the Scientist Practitioner Inventory, will be correlated with an appreciation of scientific values on the ED. This correlation will be strongest for graduates, will weaken for undergraduate majors and undergraduate non majors and will be weakest for graduate non Psychology students.

Hypothesis 3

Graduate students who endorse more human values than scientific ones on the ED will criticize the scientific basis of psychology more often than the practice of psychotherapy. This will be reflected in their ATP subscale scores, ATPS reflects attitudes toward psychology as a science and ATPP reflects attitudes toward psychotherapy.

Hypothesis 4

Graduate students who endorse more scientific values than humanistic ones on the ED will criticize the psychotherapeutic basis of psychology more often than the scientific basis of psychology. This will be reflected in their ATP scores.

Hypothesis 5

Undergraduate psychology majors who endorse more human values than scientific ones on the ED will criticize the scientific basis of psychology more often than the psychotherapeutic basis of psychology. This will be reflected in their ATP scores.

Hypothesis 6

Undergraduate psychology majors who endorse more scientific values than humanistic ones on the ED will criticize the psychotherapeutic basis more often than the

scientific basis of psychology. This will be reflected in their ATP scores.

Hypothesis 7

The pattern of criticism hypothesized in three through six will not be reflected in the scores of undergraduate non majors or graduate non psychology students.

Hypothesis 8

Women will have higher humanist (ED) and practitioner (SPI-PRAC) scores than men.

Hypothesis 9

Women will criticize the scientific basis of psychology (ATPS) more frequently than men.

Hypothesis 10

Men will criticize the practice of psychotherapy (ATPP) more often than women.

Hypothesis 11

Individuals who characterize themselves as religious will criticize psychology (ATP) more often than those who do not.

METHODOLOGY

Subjects and Procedure

Data was collected from 311 subjects from four different groups. Forty graduate students in psychology, 30 graduate students in english, 101 undergraduate psychology majors and 120 undergraduate students with majors other than psychology. Of the total sample 111 identified themselves as men and 189 identified themselves as women. The reliability coefficients for the scales employed in this study and found in these samples are reported at the end of the instruments section.

Undergraduate samples, participated for course credit. Undergraduate non-majors were sampled through the introductory psychology class for credit and undergraduate majors were sampled in a research methods class and received no credit. For the graduate samples, participation was via mail (campus mail for english students and postal mail for the psychology students) and no credit was received. Two follow up letters were sent to those who did not return surveys. The psychology sample returned 42% of surveys and the english sample returned 30% of the surveys. Participation was voluntary and subjects were told they could withdraw from the study at any point.

Subjects were also told they could review the results of the research by contacting the principle investigator. All the assessments were of the paper and pencil type.

Responses were recorded on an optical scanning sheet. The general instructions and feedback form are contained in Appendix A.

Instruments

The Scientist-Practitioner Inventory (SPI)

This 42 item instrument developed by Leong and Zachar (1991) contains two scales that measure differing professional goals and interests for psychology students (SPI-SCI AND SPI-PRAC). For undergraduate samples as a whole the scales are positively correlated, .55 (more so for the sub-set of non psychology majors, .75), and for the sub-set of psychology graduate students they are negatively correlated reflecting a choice of one professional path over another. The response format is a five point Likert scale. Internal consistencies for a graduate sample were reflected in Cronbach Alphas of .91 and .95. for the scientist and practitioner scales respectively.

The Epistemic Differential (ED)

The epistemic differential (Kimble 1982) as originally conceived used 12 bipolar scales to explore differing assumptions and philosophical positions relating to psychology. Of the original 12 scales, 6 were found to discriminate between what Kimble termed "the two cultures". These cultures were labelled the scientific and the

humanistic. Sometimes analyses of the Epistemic Differential are presented at the item level since each item deals with a global construct relating to the philosophy of the science.

Attitudes Toward Psychology (ATP)

The Attitudes Toward Psychology scale contains 29 items that tap negative beliefs and opinions about psychology. Ten of the items address criticisms of the scientific basis of psychology (ATPS), 9 items deal with the criticism of psychotherapy (ATPP), and 10 items address the criticism of the character of psychologists (ATPC). Half the items are negatively worded. The response format is a five point agree/disagree scale. The items were developed as part of this research project from a review of the literature. A more complete psychometric evaluation of this instrument is presented in the results section.

The Openness scale from the NEO PI

The openness scale from the NEO-PI (Costa & McCrae 1985) was employed to explore the possibility of underlying personality factors impacting on this pattern of criticism. The openness dimension of the NEO-PI taps traits such as imagination, non-dogmatism, intellectual curiosity and flexibility. It is a subset of items from the original 180 item scale. The response format is a five point Likert scale.

Religiosity

Religiosity was measured using a single global item with a nine point response scale.

Table 6

Scale properties for the total sample

Table Scale Properties

Scale	Test mean	Standard Deviation	Alpha Coeff.
Scientist	56.28	15.57	.92
Practitioner	67.27	18.56	.94
ATPS	36.92	6.26	.73
ATPP	32.78	5.38	.72
ATPC	32.13	5.19	.59
ATP	101.82	14.26	.85
Neo	120.91	17.21	.80
ED	32.12	7.43	.43*

*Note: The Ed scale had an alpha of .69 for graduate samples and .29 for undergraduate samples.

RESULTS

Scale Development

Although not specifically a psychometric dissertation, the development of the Attitudes Toward Psychology (ATP) scale is an important psychometric consideration in the context of this study. The scale was rationally developed using items based on quotations found mostly in literature and to some degree in academic journals. The 29 Items are divided into 3 sub-scales, 10 items dealing with the evaluation of psychology as a science, 9 items dealing with beliefs about the efficacy of therapy and 10 items dealing with the character of psychologists. The scale items are listed in appendix A along with the other instruments employed, and they should be scanned to get a sense of the sentiments respondents endorsed or rejected in this study.

The total sample of 300 subjects yielded an alpha of .85 which is a demonstration of good internal consistency. Furthermore the sub-scale reliabilities were strong, given ten, and nine item scales. The alpha for Attitudes Toward Psychology as a Science was .73, and for Attitudes Toward Psychotherapy .72. The alpha coefficient for Attitudes Toward the Character of Psychologists was .59. In the context of this study no hypotheses were formulated regarding this sub-scale.

In terms of the construct validity of the scale it was significantly correlated at the .05 level with an interest

in the practice of psychotherapy (SPI-PRAC) $r=.43$, and $r=.18$ with an interest in scientific research in psychology (SPI-SCI) and $r=.27$ with the personality trait of openness as defined by the NEO-PI. The ATP scale was uncorrelated with age, sex, or religiosity. Below is the table of means for the specific samples on this study.

Hypothesis 1

Hypothesis one predicted a significant difference between two groups on the Attitude Toward Psychology scale (ATP), these being graduate versus non-graduate status and major versus non-major. It was hypothesized that (a) psychology majors would view the subject more favorably than non-majors and that (b) graduates would also be more positive than non-graduates. A two way ANOVA using ATP as the dependent variable found a significant main effect for major ($F(1,290) = 22.42, p < .001$) but none for graduate versus non-graduate status. See Table 3. Graduate psychology and undergraduate psychology students were significantly less critical of psychology in general than non-psychology (english) graduate students and undergraduate non-psychology majors. The mean ATP scores for the groups were as follows: graduate psychology students 105.1, undergraduate psychology majors 106.07, undergraduate non-psychology majors 99.12 and graduate English students 94.57.

Table 7

Mean attitudes toward psychology.

Graduate Psychology Students (n=40)	
Attitudes toward psychology	105.1
Criticism of psychology as a science (ATPS)	37.34
Criticism of psychotherapy (ATPP)	34.33
Criticism of Psychologists (ATPC)	33.4
Graduate English Students (n=30)	
Attitudes toward psychology	94.37
Criticism of psychology as a science (ATPS)	33.10
Criticism of psychotherapy (ATPP)	31.70
Criticism of Psychologists (ATPC)	29.87
Undergraduate Psychology Students (n=101)	
Attitudes toward psychology	106.07
Criticism of psychology as a science (ATPS)	39.20
Criticism of psychotherapy (ATPP)	33.60
Criticism of Psychologists (ATPC)	33.46
Undergraduate Non-Psychology Students (n=120)	
Attitudes toward psychology	99.12
Criticism of psychology as a science (ATPS)	35.93
Criticism of psychotherapy (ATPP)	31.88
Criticism of Psychologists (ATPC)	31.30

(higher numbers reflect more positive attitudes)

Table 8

Anova, Attitude Toward Psychology by Status and Major

Source	SS	DF	MS	F	P
Main effects	4534.42	2	2267.21	11.61	.00
Status	357.37	1	357.37	1.83	.18
Major	4378.44	1	4378.48	22.42	.00
Interaction	168.23	1	168.23	.86	.35
Explained	4702.65	3	1567.55	8.03	.000
Residual	56038.61	287	195.26		
Total	60741	290	209.45		

The above results were observed when Attitude Toward Psychology was considered as a unitary construct (ATP), but additional observations were made when Attitude Toward Psychology was considered in its component (sub-scale) parts, Attitude Toward Psychology as a Science (ATPS) and Attitude Toward Psychotherapy (ATPP). These further findings are explored below. Main effects account for about 9% of the variance.

Separate analyses (ANOVA's) were conducted for, Attitudes Toward Psychology as a Science (ATPS) and, Attitude Toward Therapy (ATPP). In the former case, in addition to the effect observed for major versus non-major, an effect was observed for graduate versus non-graduate

status ($F(1,298) = 22.31$ $p < .001$). There was no significant effect for graduate versus non-graduate status on Attitude Toward Psychotherapy scores.

Hypothesis one was also tested using the NEO-PI openness scale. It was not found to act as a moderator variable. In fact, controlling for it allowed the effect for status to attain statistically significant levels, it was a suppressor variable. Graduate students as a body had higher levels of openness than undergraduates so controlling for this factor lowered their ATP scores and produced an effect for status. When controlling for openness, graduate students were more critical of psychology as a whole than undergraduates. The ANCOVA table and related data are contained in Appendix B.

Hypothesis 2

Hypothesis 2 predicted that subjects scoring highly on practitioner interests (SPI-PRAC) would also score highly on the human values pole of the Epistemic Differential (ED). Conversely, it was hypothesized that those scoring highly on the scientific interests scale of the SPI (SPI-SCI) would also score highly on the scientific values pole of the ED. Hypothesis 2 was tested by computing a Pearson product moment correlation between the scientist scale (SPI-SCI), of the SPI, which is unipolar and the subjects score on the Epistemic Differential (ED). As high scores on the ED reflect a belief in humanistic values, a negative

correlation was predicted. The second part of hypothesis required computing a Pearson product moment correlation between the practitioner scale (SPI-PRAC), which is unipolar, and the subjects score on the Epistemic Differential (ED). As low scores on the ED reflect a belief in scientific values, a positive correlation was predicted.

The statistical evaluation of hypothesis 2 was made problematic by two factors, the low return rate for graduate psychology students and the low internal consistency of the ED. The ED alpha coefficient for the entire sample was .40, for graduate students as a group .69, for graduate students in psychology .74, and for undergraduates as a whole .29. Interestingly, the ED had quite different psychometric properties in different samples. The distinctions made in the ED apparently were lost on the undergraduate samples.

The impact of this artifact are most notable in Hypotheses 5,6 and 7.

Table 9

Correlations between Epistemic Differential and Scientist Practitioner Inventory

ED	Practitioner	Scientist
Psych grad students(n=40)	.29	-.40*
NonPsych grad Students(n=30)	-.06	-.04
NonPsych undergrad Students(n=120)	.12	.11
Psych Undergrad students(n=101)	.14	-.18

* significant at the .05 level

Graduate psychology students displayed a strong relationship between their position on the Epistemic Differential and on the Scientist-Practitioner Inventory. A negative correlation ($r = -.40$) was observed between their Epistemic Differential scores (ED) (high scores reflecting a belief in humanistic values) and their scores on the scientific interests scale of the scientist practitioner scale (SPI-SCI). An interest in humanistic values was not associated (at statistically significant levels) with the practitioner aspects of psychology (SPI-PRAC). A correlation coefficient of .29 was observed but this was not found to be significant. Larger sample sizes may have produced a significant effect.

As predicted, the relationship observed in the graduate sample was weaker in the undergraduate samples. So weak in fact that it was not significant in either case.

No relationship was observed in the graduate non-psychology sample.

Hypothesis two was partially supported, in that the pattern predicted was observed, but those correlations that were predicted to be weaker were non significant.

Hypotheses 3,4

Hypothesis three was tested using a Pearson product moment correlation coefficient to examine the relationship between the Epistemic Differential (ED) and criticisms made by psychology graduate students of psychology as a science

(ATPS) and of therapy (ATPP). A correlation of $-.39$ was found between graduate psychology students scores on the ED and the Attitude Toward Psychology as a Science (ATPS). This reflects a tendency for those who endorse the importance of human values to state that psychology is not scientific (indeed need not be) and conversely for those who state psychology is scientific, to value the importance of scientific principles. Each group sees psychology the way they want to.

A correlation of $-.15$ was found between the appreciation of scientific values over humanistic ones on the ED, and the Attitude Toward Psychotherapy (ATPP). This correlation was not significant. This suggests that views on the value of psychotherapy were independent of views on a humanistic versus scientific orientation. No relationship was found between these variables for the non-psychology graduate students.

Hypotheses 5,6

Hypotheses 5 and 6 addressed the relationship between Attitudes Toward Psychotherapy (ATPP) and Attitude Toward Psychology as a Science (ATPS) with the Epistemic Differential in the undergraduate psychology sample using a correlational analysis. Undergraduate psychology majors revealed no significant relationships between their position on the ED and either the ATPP or the ATPS.

Hypothesis 7

Hypotheses 7 addressed the relationship between Attitudes Toward Psychotherapy (ATPP) and Attitude Toward Psychology as a Science (ATPS) with the Epistemic Differential in undergraduate and graduate non-psychology majors using a correlational analysis.

Neither graduate or undergraduate non-psychology majors had significant relationships between their philosophical position reflected on the ED and their criticisms of psychology (ATPP and ATPS).

Hypothesis 8

Hypothesis 8 had two parts. Women were predicted to have higher humanist scores than men on the ED and higher practitioner scores (SPI-PRAC) than men. It was tested using two independent t-tests.

Women were found to have higher humanist scores than men, reflecting a greater appreciation for humanistic values than scientific ones on the part of women ($t(2,298) = 3.26, p < .001$). The mean score for men was 30.00, versus a mean of 33.37 for women. The effect size is .47.

Women's greater interest in humanistic values was also reflected in greater support for the practitioner (SCI-PRAC) aspects of psychology than men ($t(2,298) = 3.67, P < .001$). The mean ED score for men was 63.02 and 69.8 for women. The effect size was .37 Hypothesis 8 was supported.

Hypothesis 9

Hypothesis 9 examined sex differences in the patterns of criticizing the scientific basis of psychology. It was tested using an independent t-test.

Although women displayed a greater interest in humanistic values and the practice of psychology as reflected in hypothesis 8, this did not lead them to criticize the scientific basis of psychology more than men ($t(2,298) = 1.78$ $p < .07$). Hypothesis 9 was unsupported.

Hypothesis 10

Hypotheses 10 examined sex differences in the patterns of criticizing the value and efficacy of psychotherapy (ATPP). It was tested using an independent t-test

Hypothesis 10 was supported in that men were found to be more critical of the practice of psychotherapy (ATPP) than women ($t(2,298) = 3.54$ $p < .001$), men having a mean score of 31.46 and women having a mean score of 33.70. Hypothesis 10 was supported. the effect size was .41.

Hypothesis 11

Hypotheses 11 examined differences in the patterns of criticizing psychology between those who characterize themselves as religious and those who don't. It was tested using a correlational analysis.

No relationship was found between the importance attributed to religious values and Attitude Toward Psychology. Hypothesis 11 was not supported.

Additional Analyses

The openness scale of the NEO-PI was included in the general analysis to examine its relationship with the variables under scrutiny. This was done as it was thought that a personality factor such as openness may account for some of the variance. It was not found to explain variance that was accounted by other variables in the study. An ANCOVA was used to examine its potential effect as a moderator variable on Attitudes Toward Psychology and evidence for its action as a suppressor variable was found and referred to above (Appendix B)

The significant correlations (.05 level) between the NEO-PI openness scale and several variables were as follows: with the SPI-SCI .23, and with the SPI-PRAC scale .26. A correlation of .33 was found with support of psychotherapy or a belief in its efficacy (ATPP). The openness scale correlated .21 with the ATP. It was negatively correlated with religiosity, -.21, and correlated with graduate status .25, and age .26.

DISCUSSION

Negative attitudes toward psychology

It was hypothesized that the criticisms of psychology found in literature and empirical research will be found, within student populations, to be partly a function of major versus non-major and graduate versus undergraduate status. The test for hypothesis one demonstrated that in the samples under consideration, psychology was viewed in a more positive light by psychology majors than non-majors. This finding cut across considerations of graduate versus non-graduate status. This is what one might expect since people who like psychology choose to study it and those who choose to study it may come to like it more.

The analysis for hypothesis one construed criticism of psychology as a global construct, but when the criticism of psychology is narrowed to a criticism of its scientific status, it is found that in addition to the effect observed for major versus non major, there is also one for graduate versus non-graduate status. Specifically, graduate students are slightly less willing to confer the status of science on psychology than are undergraduates.

Possibly, graduate students are more critical of scientific claims in general and apply those criticisms to psychology. They also may have more sophisticated criteria for scientific status that a discipline needs to meet.

It is also likely that selection factors dictate that those who make it to graduate school become more scientifically sophisticated and, consequently are not as naively enthusiastic about the discipline having concerns about the scientific rigor (or lack of it) sometimes seen (or not seen) in psychology.

Although graduate students are more critical vis-a-vis the value of psychology as a science, graduate students are no more critical of psychotherapy than undergraduates. It is interesting that the more critical attitudes graduate psychology students hold regarding the scientific foundation of psychology are not extended to the practice of psychotherapy. Graduate students do not apply the same evaluative criteria to the practice of psychotherapy as they do to the practice of the science of psychology. This implies that graduate students believe psychotherapy, an applied practice of psychology, has a value that is independent of criticisms of the scientific foundation of the whole endeavor.

It is also possible that graduate psychology students, as a group, have more contact with the process of therapy so have had the opportunity to see it work and base their judgements on their experience rather than on academic scientific criteria. Undergraduate students are less likely to have had this opportunity and forced to use scientific criteria (although less sophisticated than graduates scientific criteria) in judging psychotherapy. This

contradicts the finding of Furnham and Wardley (1987) who found education to be negatively correlated with acceptance of therapy.

Another implication of these results is that the perception of the science of psychology as a political and unscientific endeavor is held most strongly by graduate students (these terms are embedded in many of the items) and rejected by undergraduate students.

In summary, it can be said the samples under consideration each appear to have specific concerns about the science of psychology and the practice of therapy. In terms of global attitudes, psychology majors are less critical than non-majors. Also undergraduate students are found to be more positive than graduates when the analyses are controlled for openness. While considering specific criticisms, graduates as a whole are a little more skeptical of the scientific basis of the field, they do not extend this criticism to the practice of psychotherapy.

Philosophical Determinants

It was also hypothesized that the pattern of criticism of psychology can be better understood by examining the degree to which the individual places importance on the humanistic approach to the discipline as oppose to the scientific one. It was suggested that these operational definitions emerge developmentally as the student proceeds from undergraduate to graduate status.

For the most part the philosophical perspectives of the respondents do not relate to their criticisms. The undergraduate samples were philosophically undifferentiated. Only psychology graduate students show a relationship between their expressed philosophical perspectives and their patterns of criticism of psychology. The internal consistency of the Epistemic Differential was radically different for the different groups under consideration. The alpha coefficient for the entire sample was .40, for graduate students as a group .69, for graduate students in psychology .74, and for undergraduates as a whole .29.

For all intents and purposes, the philosophical distinctions examined in this study are of little importance to the larger sample of critics of psychology and are not a useful explanatory model for samples other than graduate psychology students. The distinctions between Humanistic and Scientific approaches appear to be lost on undergraduates. They are somewhat better understood by graduate english students, even though they were still unrelated to the criticisms this group made.

For graduate psychology students, expressed philosophical preferences are related to scientific vocational preferences but unrelated to practitioner vocational interests. For the other three samples expressed philosophical preferences are unrelated to hypothetical vocational choices within psychology. Not being in

psychology, they have probably not thought the implications of their philosophical perspectives through in the same manner that graduate psychology students have been forced to think through their contact with the discipline.

In this context it is important to note two things. Firstly there is weak evidence for a developmental model to epistemological and critical approaches to psychology. This evidence can only be seen when comparing graduate psychology students and "others", as the philosophical distinctions were either unreliable, in the case of undergraduates, or unrelated, in the case of graduate english students, to forms of criticism. This is not to devalue the importance of a developmental model in understanding the criticism of psychology because as we have noted, some of the most vocal criticisms of psychology comes from within the field.

It is also important to note that vocational choices as reflected in the SPI appear to "precede" philosophical choices reflected in the ED. While the distinctions of the SPI are well understood by undergraduates, the distinctions in the ED are clearly not. Philosophical positions, which often support our overt behavior emerge post hoc.

Sex and Other Factors

It was also predicted in the thesis that the pattern of criticism of psychology can be better understood in terms of factors such as sex and religiosity.

While no effects were observed for religiosity, this study revealed some interesting sex differences in the ways subjects construe and criticize the discipline of psychology. Women hold a more humanistic view of the science of psychology than men, relying more on intuition, contextual approaches, field research, indeterminism, individual uniqueness, ecological validity, empathy, linguistic analysis, ideographic approaches, and holism. Men placed more value on elementism, universalism, laboratory investigation, precision, sense data, objectivism and nomothetic approaches (these are the specific terms used in the instrument).

Women also express greater interest in the practitioner aspects of psychology than men. Interestingly, these choices do not lead women to be any more critical of the scientific foundations of psychology than men, who are more critical of the practice of psychotherapy than women. This may be a function of men's readiness to criticize. This finding also provides evidence for differential validity for the constructs of Psychotherapy and Scientific Psychology, suggesting that an interest in one does not imply a criticism of the other.

This study demonstrates that the varieties of criticism of psychology found in the empirical literature and popular culture, together can be used to form an internally consistent instrument. Further, specific forms of criticism, of the science of psychology and the practice

of psychotherapy, are found to be internally consistent. In this study the form and level of criticism is demonstrated to vary as a function of major versus non-major and undergraduate versus graduate status. Although general criticisms of psychology can be characterized, criticism of psychotherapy and criticism of the science of psychology are more specific forms of criticism. These two forms are independent, particularly for graduate students.

Philosophical preferences are a good explanatory model only for graduate psychology students and there is some indication that these philosophical perspectives develop from expressed behavioral preferences rather than the other way around.

Women are more open in general and less critical in general than men. Men tend to adopt scientific values in approaching psychology whereas women tend to value a Humanistic approach.

In terms of future research several points may be noted. As regards the developmental aspects of polarizing philosophical opinions the current research may have suffered from the effects of restricted range, or something akin to a "floor" effect in psychometrics, in that it examined only undergraduate and graduate students. Future studies might do well to examine groups that are well beyond their student days in psychology both in private practice and those who go on to academia to examine if their philosophical positions further polarize.

From the perspective of external validity it seems important to gather ATP data from a wide range of non student groups, particularly those that are likely to be users of psychological services or those groups that would benefit from services but are traditionally underserved as negative feelings about psychology may become a barrier to service. Construct validity could be improved by comparing the scores of therapy drop outs with those who remain in therapy. The predictive validity of the instrument might be assessed using it to differentiate between psychology graduate students who go on to an academic vocation and those who choose a clinical path. Additional data arising from specific psychology student samples would be useful (clinical versus experimental) as well as other graduate students from disciplines other than psychology and english. The return rate in this study from the graduate groups was low and as such selection factors were probably in operation. Higher return rates through the use of more follow up letters and more attractive presentation may help alleviate this problem.

Although initial psychometric data arising from the ATP is quite promising further data is needed. Test-retest reliability would give an important assessment of the temporal stability of the ATP. Factor analysis could be used to confirm the underlying structure, particularly to see if the three sub-scales emerge as unitary constructs or if other additional dimensions are suggested. The sub-

scale, criticism of the character of psychologists, not included in any of the hypotheses, will benefit from a new item pool for item selection to raise its internal consistency. This will be necessary before any hypothesis can be testing using it.

REFERENCES

- American Psychological Association. (1954). Public information guide. Washington, D.C:Author.
- Benjamin, L.T.Jr., (1986). Why Don't They Understand Us? A History of Psychology's Public Image. American Psychologist, 41, 941-946.
- Candidates speak (1985, May). APA Monitor, 16, 8-13.
- Candidates speak (1986, May). APA Monitor, 17, 7-12.
- Cupchik, G.C., Klajner, F., & Riley, D. (1984). Undergraduate Attitudes Toward Psychology in the 1980's. Teaching of Psychology, 11, no.4, December.
- Dollinger, S.S., & Thelen, M.H. (1978). Children's perceptions of psychology. Professional Psychology, 9, 117-126.
- Furnham, A., & Wardley, Z., (1990). Lay Theories Of Psychology 1: Attitudes Toward, And Beliefs About, Psychotherapy And Therapists. Journal of Clinical Psychology, November 1990, 46, no. 6.
- Grossack, M. (1954). Some negro perceptions of psychologists: An observation on psychology's public relations. American Psychologist, 9, 188-189.
- Guest, L. (1948). The public's attitudes towards psychologists. American Psychologist, 3, 135-139.
- Green, E., & Loftus, E.F. (1982). Eyewitness testimony: Constructive processes in human memory. Advances in Psychology, 1(2), 1-7.

- Hartnett, J., Simonetta, L., & Mahoney, J. (1989).
Perceptons of Nonclinical Psychologists Toward
Clinical Psychology and Clinical Psychologists.
Professional Psychology: Research and Practice, 20,
No. 3, 187-189.
- Jastrow, J. (1900). Fact and fable in psychology.
Boston:Houghton-Mifflin.
- Kabatznick, R. (1984). The public's perception of
psychology: Attitudes of four selected groups.
Unpublished doctoral dissertation, City University of
New York.
- Kiesler, C.A., & Lowman. R.P.(1980). Editorial: Hutchinson
Versus Proxmire. American Psychologist, 35, no.8, 689-
690.
- Kimble,G.A. (1984). Psychology's two cultures. American
Psychologist, 39, 833-839.
- Kimble,G.A.(1985,May). APA presidential candidate
statement. APA Monitor, pp.9,11.12.
- Kimble, G.A. (1984). Psychology's Two Cultures. American
Psychologist, August.
- Koch, S. (1981). The nature amd limits of psychological
knowledge. American Psychologist, 36, 257-269.
- Leong, F.L., Zachar, P. (1991). Development and Validation
of the Scientist-Practitioner Inventory for
Psychology. Journal of Counseling Psychology, 38,
no.3, 331-341.

- Lent, R.W. (1990). Further Reflections on the Public Image of Counseling Psychology. The Counseling Psychologist, 18, no.2, 324-332.
- McGuire, J.M., & Borowy, T.D. (1979). Attitudes toward mental health professionals. Professional Psychology, 10, 74-79.
- Mervis, J. (1984, November). APA public policy as a story of conflict. APA Monitor, p. 10.
- Murray, J.B. (1962). College student's concepts of psychologists and psychiatrists: A problem in differentiation. Journal of Social Psychology, 57, 161-168.
- Nunnally, J., & Kittross, J.M. (1958). Public attitudes toward mental health professions. American Psychologist, 13, 589-594.
- Schindler, F., Berren, M.R., Hannah, M.T., Beigel, A., & Santiago, J.M. (1987). How the public perceives psychiatrists, psychologists, nonpsychiatric physicians, and members of the clergy. Professional Psychology: Research and Practice, 18, 371-376.
- Sechrest, L. (1992). The Past of Clinical Psychology: A Reflection on Woodworth (1937). Journal of Consulting and Clinical Psychology, 1992, 60, no.1. 18-23.
- Snow, C.P. (1964). The two cultures and a second look. London, England: Cambridge University Press.

- Staats, A.W. (1981). Paradigmatic behaviorism, unified theory, unified theory construction methods, and the zeitgeist of separatism. American psychologist, 36, 239-256.
- Warner, D.L., & Bradley, J.R. (1991). Undergraduate Psychology Student's Views of Counselors, Psychiatrists, and Psychologists: A Challenge to Academic Psychologists. Professional Psychology: Research and Practice, 22, no. 2, 138-140
- Webb, A.R., (1989). What's in a Question? Three Methods for Investigating Psychology's Public Image. Professional Psychology: Research and Practice, 20, no. 5, 301-304.
- Webb, A.R. (1988). Psychology as an ambiguous attitude stimulus. American Psychologist, 43, 487-488.
- Webb, A.R., & Speer, J.R. (1985). The Public Image of Psychologists. American Psychologist, September, 1063-1064.
- Wood, W., Jones, M., & Benjamin, L.T. Jr. (1986). Surveying Psychology's Public Image. American Psychologist, September, 947-953.
- Webb, A. R., & Speer, J.R. (1986). Prototype of a Profession: Psychology's Public Image. Professional Psychology: Research and Practice, 17, no. 1, 5-9.
- Zytowski, D.G., Casas, J.M., Gilbert, L.A., Lent, R.W., & Simon, N.P. (1988). Counseling Psychology's Public Image. The Counseling Psychologist, 16, no. 3, July. 332-346.

APPENDICES

APPENDICES

Appendix A

GENERAL INSTRUCTIONS

This research study is conducted by Hugh Stephenson, Graduate Student in the Department of Psychology. We are collecting this data only to study some important research questions concerning the perceptions people have of psychologists. In this study, your task is to complete some self-report inventories. At the end of this session, you will receive your course credit and a feedback sheet giving more information about this study.

We want you to participate in this study ANONYMOUSLY. DO NOT WRITE YOUR NAME OR ID NUMBER ON THE TEST MATERIALS OR THE ANSWER SHEETS. Follow the instructions specific to each section of the questionnaire. Use only a No. 2 pencil to record your responses on the corresponding answer sheets.

Darken the appropriate circle for your gender, and write in your age in columns O and P, darkening the appropriate circles. Answer all items in each inventory as honestly as possible. In case of doubt, answer to the best of your ability. If you leave even a few blanks, your data cannot be used for data analyses.

If you have any questions or problems with the test booklet (e.g., missing pages, poor printing of items) and/or answer sheets (e.g., not having an adequate number of answer sheets, not having the right kind of answer sheet), please immediately contact the test administrator. In this session, you should be able to complete the inventories presented to you in about one hour. When you have completed the inventories given to you, place all materials and the pencil in the envelope. Return everything to the test administrator before leaving the room.

This project has been reviewed and approved by the Carbondale Committee for Research Involving Human Subjects. If you have any questions about your rights as a research subject you may contact the Chairperson of the Committee at 453-4533.

SCIENTIST PRACTITIONER SCALE

- 1) Writing an article commenting on research findings.
- 2) Conducting a psychotherapy session with an individual client.
- 3) Analyzing data from an experiment you have conducted.
- 4) Conducting a diagnostic interview with a client.
- 5) Presenting research findings at a conference.
- 6) Planning a behavior modification program for a client.
- 7) Formulating a theory of a psychological process.
- 8) Designing a new treatment method for a mental health agency.
- 9) Designing an experiment to study a psychological process.
- 10) Administering a psychological test to a client.
- 11) Writing a scientific book for psychologists.
- 12) Conducting couples and family therapy.
- 13) Supervising students research projects.
- 14) Consulting with school personnel about a school prevention program.
- 15) Collecting data on a research project you designed.
- 16) Organizing a new treatment program in a mental hospital.
- 17) Reviewing journal articles.
- 18) Presenting a report during a case conference.
- 19) Applying for research grants.

- 20) Supervising practicum students in clinical and counselling psychology.
- 21) Writing research papers for publication.
- 22) Reading about new approaches to psychotherapy.
- 23) Reviewing the literature on an issue in psychology.
- 24) Giving advice about psychological problems on a radio talk show.
- 25) Working for a funded research institute.
- 26) Interpreting a test battery for a client.
- 27) Serving as an editor for a scientific journal.
- 28) Helping a client get in touch with feelings.
- 29) Learning new strategies for psychological problems.
- 30) Writing a statistical program.
- 31) Reading a book on innovative research design.
- 32) Going through therapy to make yourself a better person.
- 33) Learning about a new statistical procedure.
- 34) Attending a conference on psychotherapeutic techniques.
- 35) Brainstorming about possible research with colleagues.
- 36) Consulting with other psychologists about a particular clients concern.
- 37) Helping a colleague understand confusing statistical findings.
- 38) Reviewing an agencies intake form for a new client.
- 39) Developing new explanations of well accepted empirical studies.
- 40) Reading a book written by a famous psychotherapist.
- 41) Conducting group psychotherapy sessions.
- 42) Serving on a thesis or dissertation committee.

Negative Attitudes Toward Psychology

Please read the following statements and indicate on the op-scan to what degree you agree with each statement. 5=Agree strongly 4=Agree somewhat 3=No opinion 2=Disagree somewhat 1=Disagree strongly. Only use the no opinion option if you are absolutely sure this is the case.

- 1) Psychology is not scientific
- 2) The science of psychology helps us understand our lives.
- 3) Psychology has been used to oppress and coerce people.
- 4) Psychology is more of a religion than a science.
- 5) Human experience cannot be understood in terms of a scientific psychology.
- 6) Psychology has always been used for good purposes.
- 7) Research in psychology is a waste of money.
- 8) The study of psychology belongs in the humanities rather than sciences.
- 9) Our feelings and experiences can be studied scientifically by psychology.
- 10) Psychology is as scientific as any other science.
- 11) Psychotherapy does not work.
- 12) Psychotherapy is very beneficial.
- 13) Clients become attracted to their therapists in a harmful way.
- 14) Psychotherapists and clients often have conflicting goals in therapy.

- 15) The training of psychotherapists is of a high standard.
- 16) Psychotherapy is based on scientific principles.
- 18) Psychotherapy only works because people believe in it.
- 19) Psychotherapy clients are weak people.
- 20) Psychotherapy is a "new religion."
- 21) Psychologists are a bit crazy themselves.
- 22) I would like my partner to be a psychologist.
- 23) Psychologists are more perceptive than most people.
- 24) Psychologists are better adjusted than most people.
- 25) People feel uncomfortable around psychologists.
- 26) People often become psychologists to understand their own problems.
- 27) Psychology would be a good profession for my children.
- 28) I would feel relaxed among psychologists.
- 29) Psychotherapists are just normal people.
- 30) Psychotherapists deal with other peoples problems so they won't have to address their own.

NEO - Personality Inventory

Please read the following statements and indicate on the op-scan to what degree you agree with each statement. 5=Agree strongly 4=Agree somewhat 3=No opinion 2=Disagree somewhat 1=Disagree strongly. Only use the no opinion option if you are absolutely sure this is the case.

1. I have a very active imagination.
2. I try to keep all my thoughts along realistic lines and avoid flights of fantasy.
3. I have an active fantasy life.
4. I don't like to waste my time day dreaming.
5. I enjoy concentrating on a fantasy or day dream.
6. If I feel my mind starting to drift off into daydreams, I usually get busy and start concentrating on some work instead.
7. As a child I rarely enjoyed games of make believe.
8. I would have difficulty letting my mind wander without control or guidance.
9. Aesthetic and artistic concerns are not very important to me.
10. I am some times completely absorbed in music I am listening to.
11. Watching ballet or modern dance bores me.
12. Certain kinds of music have an endless fascination for me.
13. Poetry has little or no effect on me.
14. I am intrigued by patterns I find in art and nature.
15. Some times when I am reading poetry I feel waves of excitement.
16. I enjoy reading poetry that emphasizes feelings more than story lines.
17. Without strong emotions life would be uninteresting to me.
18. I rarely experience strong emotions.
19. How I feel about things is important to me.
20. I find it hard to get in touch with my feelings.
21. I experience a wide range of emotions or feelings.
22. I seldom pay much attention to my feelings.
23. I seldom notice the moods that different environments produce.
24. I find it easy to empathize.
25. I am pretty set in my ways.
26. I think it is interesting to learn and develop new hobbies.
27. I like to follow a strict routine in my work.
28. Once I find a right way to do something I stick to it.
29. I often try new foods.
30. I prefer to spend my time in familiar surroundings.

31. On vacation, I prefer going back to a tried and true spot.
32. I follow the same routine when I go some place.
33. I enjoy playing with theories or abstract ideas.
34. I enjoy solving problems or puzzles.
35. I enjoy working on mind twister puzzles.
36. I find philosophical arguments boring.
37. I lose interest when people talk about abstract matters.
38. I have little interest in speculating on the nature of the universe or the human condition.
39. I have a lot of intellectual curiosity.
40. I have a wide range of intellectual interests.
41. Letting students hear controversial speakers can only confuse and mislead them.
42. I believe that laws and social policies should change to reflect a changing world.
43. I believe we should look to religious authorities for decisions on moral issues.
44. I believe that different ideas of right and wrong may be valid for people in other societies.
45. Loyalty to one's principles is more important than open mindedness.
46. I consider myself broad minded.
47. People should know what they believe by the time they are 25.
48. I believe that the new morality of permissiveness is no morality at all.

MOST IMPORTANT VALUES

The most important values that govern research and scholarship are scientific values. Although humanistic values play a role, that role is a subordinate one. The immediate goal of scholarship is the advancement of scientific knowledge. In cases where human values and scientific values appear to be in conflict, raising questions as to whether a bit of research is worth doing, scientific costs and benefits contribute more to the decision than human costs and benefits. Scholarship places no responsibility on the scholar personally to apply the products of scholarship for the good of society. The strongest criticisms one can make of a research project are methodological criticisms. A study that is unsound in these terms cannot be justified by any apparent degree of relevance to the human condition and is therefore pointless.

Scientific values
 Increasing scientific knowledge
 Methodological strength
 No obligation to apply

The most important values that govern research and scholarship are humanistic values. Although scientific values play a role, that role is a subordinate one. The immediate goal of scholarship is the improvement of the human condition. In cases where scientific values appear to be in conflict, raising questions as to whether a bit of research is worth doing, human costs and benefits contribute more to the decision than scientific costs and benefits. Scholarship puts the scholar in a position of personal responsibility to apply the products of scholarship for the good of society. The strongest criticism one can make of a study is in terms of relevance to the human good. A study that lacks such relevance cannot be justified by any appeal to scientific values and is pointless.

Human values
 Improving the human condition
 Relevance to social good
 Personal obligation to apply

DEGREE OF LAWFULNESS OF BEHAVIOR

All behavior is caused by physical, physiological, or experiential variables. In principle it is possible to discover exact laws relating even individual behavior to these variables. Behavior is understandable, predictable, controllable.

The concept of Causality probably does not apply to behavior, certainly not to individual behavior. There is nothing lawful about behavior except perhaps at the level of statistical averages. Even in principle, behavior must be regarded as incomprehensible, unpredictable, and beyond control.

Determinism
 Lawful
 Understandable
 Predictable
 Controllable

Indeterminism
 Not lawful
 Incomprehensible
 Unpredictable
 Uncontrollable

SOURCE OF BASIC KNOWLEDGE

The final source of psychological knowledge is to be found in sense data obtained by observation. Such observations must be ones that can be carried out by any properly trained and equipped observer. our concepts must be defined operationally in terms that can be tested by public observation. The primary object of the observation is the behavior of other organisms and the circumstances under which behavior occurs. Psychology is the science of the "other fellow". self report can contribute little.

Objectivism
Sense data
Public observation
Operational definition
Information from
Investigation

The final source of psychological knowledge is to be found in the intuitions we all have because we are human. Empathy provides better understanding than observation. The concept of public testability must be rejected. Operational definitions hamper progress in psychology more than they promote it. Observations can never substitute for the knowledge contained in common sense. An analysis of language as we use it will yield more useful concepts than operational definitions. Self report is more valid than observations made on others.

Intuitionism
Empathy
Self-report
Linguistic analysis
commonsense

SETTING FOR DISCOVERY

The most important setting for psychological investigations is the laboratory; the most important method in experimentation. Whatever we lose as a result of artificiality is more than made up for by what we gain in the way of control. Precision is more important than ecological validity. Manipulating variables produces more useful information than anything that can be accomplished by naturalistic observation. Hypothesis testing is a more powerful tool than correlation.

Laboratory investigation
 Experimentation
 Manipulation of variables
 Hypothesis testing
 Precision

The most important setting for psychological investigations is the real world in which people live. Whatever we lose by way of control is more than made up for by what we gain by working in a natural rather than artificial situation. Ecological validity is more important than precision. Naturalistic observation produces more useful information than anything that can be accomplished by manipulating variables. Correlation is a more powerful tool than hypothesis testing

Field study
 Survey/case study
 Naturalistic observation
 Reality
 Ecological validity.

GENERALITY OF LAWS

The laws of behavior are, or someday will be, very general (nomothetic) laws, applying to all members of a given species. The concept of "standard man" is a sound one; there is no such thing as a unique individual except in the sense that unique functioning of general laws may apply in individual cases. The laws of behavior also generalize to a wide range of situations. Universalism is a better concept than contextualism.

Nomothetic
Species general
"Standard Man"
Universalism

Laws of behavior that apply to all members of a species can never be discovered. Although regularities can be discovered they apply to the behavior of specific individuals. These laws (ideographic) of individual human behavior have nothing to do with the behavior of members of other species. every individual is unique. the laws of behavior are specific to situations as well as to individuals. Contextualism is a better concept than universalism .

Ideographic
Species specific
Individual uniqueness
Contextualism

LEVEL OF ANALYSIS

Progress in psychology requires the analysis of behavior, experience and stimulus situations into their elements. Only then can we proceed to the task of determining the rules of synthesis by which these elements combine to produce complex behavior and experience. The construction of the nervous system is designed to deal with elements. elements must therefore, be basic, the wholes of behavior and experience must be made up of these parts. The idea that the whole is greater than the sum of the parts is nonsense.

Elementism
Molecular
Wholes constructed from
parts

Progress in psychology requires the recognition of the unanalyzability of behavior, experience and the environment. we live in an organized perceptual world, not a fragmented physical one. the whole has priority; attempts to extract mental or behavioral elements from it is bad science. Parts have meaning only in the context of wholes. If the nervous system processes only elements, this casts doubt on physiological interpretation because it fails to recognize that the wholes are in fact greater than the sum of their parts. To deny that is nonsense.

Holism
Molar
Wholes giving meaning to parts

Please rate the degree to which you hold religious values as important.

0 1 2 3 4 5 6 7 8 9
not at all very
important important

Sex.

0 = Male
1 = Female

Academic Status

0 = Freshman
1 = Sophomore
2 = Junior
3 = Senior
5 = First year Graduate Student
6 = Second year Graduate Student
7 = Third year Graduate Student
8 = Fourth year Graduate Student
9 = Other

0 = I am a Psychology major or graduate student.
1 = I am not a Psychology major or graduate student.

Appendix B

ANCOVA

* * * A n a l y s i s o f V a r i a n c e -- design 1

Tests of Significance for ATP using UNIQUE sums of squares
Source of Variation S DF MS F Sag

WITHIN CELLS	50089.19	273	183.48		
REGRESSION	2485.29	1	2485.29	13.55	.000
STAT1	1359.35	1	1359.35	7.41	.007
MAJ	4105.30	1	4105.30	22.38	.000
STAT1 BY MAJ	419.32	1	419.32	2.29	.132
(Model)	7247.19	4	1811.80	9.87	.000
(Total)	57336.38	277	206.99		

R-Squared = .126

Adjusted R-Squared = .114

Regression analysis for WITHIN CELLS error term
--- Individual Univariate .9500 confidence intervals
Dependent variable .. ATP atp
COVARIATE B Beta Std. Err. t-Value Sag.
NET .18597 .22352 .051 3.680 .000
COVARIATE Lower -95% CL- Upper
NET .086 .285

Adjusted and Estimated Means
Variable .. ATP atp
CELL Obs. Mean Adj. Mean Est. Mean Raw Resid. Std.
Resid.

Psych Ugs 106.458 107.090 106.458 .000 .000
NonPsych 99.304 101.057 99.304 .000 .000
Ugs
Psych 105.100 104.554 105.100 .000 .000
Grads
English 94.567 92.728 94.567 .000 .000
Grads

Mean Neo sample scores
Graduate psychology students 127.05
Graduate English students 134.00
Undergraduate Non-psychology students 114.69
Undergraduate psychology students 120.72

Correlation Coefficients

	AGE	SCI	PRAC	SUBA	SUBB
AGE	1.0000 (267) P=.000	.1056 (267) P=.085	.0835 (267) P=.174	-.0481 (267) P=.434	-.0461 (267) P=.453
SCI	.1056 (267) P=.085	1.0000 (307) P=.000	.3260 (307) P=000	.1767 (307) P=002	.1169 (307) P=041
PRAC	-.0835 (267) P=.174	.3260 (307) P=.000	1.0000 (307) P=.000	.2793 (307) P=.000	.4178 (307) P=.000
SUBA					

VITA

Graduate School
Southern Illinois University

Hugh Stephenson Date Of Birth: May 4 1964

1427 ST. Mary Apt C, New Orleans, Louisiana

University College Dublin
Bachelor of Arts Psychology

Southern Illinois University at Carbondale
Master of Arts in Psychology

Major Professor: Ronald Schmeck