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UNIVERSITY.....OF ALBERTA.....

DEGREE FOR WHICH THESIS WAS PRESENTED....PH.D.....

YEAR THIS DEGREE GRANTED.....1972.....

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DATED..July 14.....1972

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THE UNIVERSITY OF ALBERTA

TWO CONCEPTS OF MENTAL HEALTH

by

JAMES WILLIAM VARGO

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

FALL, 1972

UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES

AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled "Two Concepts of Mental Health" submitted by James William Vargo in partial fulfilment of the requirements for the degree of Doctor of Philosophy.

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Date: May 23, 1972.

ABSTRACT

The concepts of mental health underlying two different systems of psychotherapy were investigated. The psychotherapeutic systems explored were rational-emotive psychotherapy, which explicitly states that the mentally healthy person is rational, and systematic desensitization by reciprocal inhibition, which implicitly assumes that the mentally healthy person is assertive.

The Adult Irrational Ideas (A-I-I) Inventory (measuring rationality) and the Social Acquiescence (SA) Scale (measuring assertiveness) were administered to 65 psychiatric inpatients and 86 noninstitutionalized ("mentally healthy") persons. Analyses of variance showed the two samples to differ significantly on A-I-I Inventory scores but not on SA Scale scores, suggesting that mentally healthy people are more rational but no more assertive than mentally disturbed people. There was a sex difference on A-I-I Inventory scores, females scoring significantly higher than males. Although no overall sex differences occurred on SA Scale scores, normal females scored significantly higher than normal males. This finding was discussed in terms of sex-role expectations.

There was more evidence for the statement "All rational persons are assertive" than for the statement "All assertive persons are rational"; thus rationality may serve as a more central component of mental health than assertiveness.

ACKNOWLEDGEMENTS

Many people assisted in the preparation of this document. I would like to thank committee members Dr. S. Davis, Dr. E. Fox, Dr. J. Freisen, Dr. J. Mitchell, and Dr. D. Wangler; Dr. T. Maguire, Dr. M. Westwood, Mr. B. Johnson, Ms. T. Johnston, Ms. C. Levine, Mr. B. Morris, and the other faculty members and graduate students who forced me to clarify my thoughts; Mr. S. Calendar, Ms. E. Grant, Dr. R. Pettifor, and Dr. H. Wojcicki, who granted the time and permission necessary for testing their patients, and all of the subjects who gave of their time to act as participants.

Special thanks are extended to my supervisor Dr. J. Bishop, who was available for discussion at all stages of the research; to Mr. P. Braun, who spent many hours with me discussing research design and data analysis; to Ms. E. Jordan, who typed many drafts of the manuscript; to Ms. B. Westwood, who graciously helped with data collection, and, most important of all, to my wife, Fran, who was always available when I needed her.

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CHAPTER I

INTRODUCTION

Throughout the ages, man has been haunted by the phenomenon of mental health and its obverse, mental disorder. It might even be argued that the truly great novelist is the one who, through the characters he creates, ultimately addresses himself to the inner workings of the human mind. Accordingly we are intrigued by such human enigmas as Quasimodo in Hugo's *The Hunchback of Notre Dame*, Heathcliffe in Bronte's *Wuthering Heights*, Dr. Frankenstein's monster in Shelley's *Frankenstein*, Ralph, Jack and Piggy in Golding's *Lord of the Flies*, and Fabin in Dicken's *Oliver Twist*. Similarly, characters created by literary giants like Chekhov, Dosteovsky, Poe, and Tolstoy leave us wondering about human behavior and what makes a person "normal" and not normal - what is that ethereal phenomenon "mental health"? Is man Jack or Piggy? Dr. Jekyll or Mr. Hyde?

The social sciences, at their present stage of development cannot answer the above questions. However, we do know this: society institutes certain rules, values, mores. When an individual deviates too far from society's prescription of moral etiquette, he is labelled variously "criminal", "sick", "weird", "insane", or "crazy". In recent years, since the innovations of Sigmund Freud, people diagnosed "mentally disturbed" have been led to seek help or have been forced to receive it, in the form of a variety of treatment techniques all lumped under the general heading of "psychotherapy".

Psychotherapy and Mental Health

All forms of psychotherapy involve two basic elements: change and directionality. The first is obvious: the patient or client or counselee (these three terms will be used interchangeably) undergoes psychotherapy because someone, either himself or another person or agency, wants him to be different than he is. And to become different means to change. So it can be seen that one function of therapy is to implement change, for if no change is desired, therapy would be unnecessary.

The second element characteristic of all psychotherapy is directionality. Change in itself is not enough for, as Truax and Carkhuff (1967) and Carkhuff and Berenson (1967) have shown, the client can change "for better or for worse" in terms of constructive or adaptive behaviors.

The specific direction the changes take may come from various sources: the patient, the therapist, the agency employing the therapist, societal institutions, or a combination of these. Regardless of the system of therapy employed or the source of directionality, every therapist has some idea of the way he wants his patient to change. And the conceptualization of what the counselee is to become is founded on the therapist's underlying rationale of what constitutes the behavior of a mentally healthy person. To put it another way, some concept of mental health, psychological health, or emotional adjustment underlies *all* systems of psychotherapy.

The assumptions about mental health inherent in psychotherapeutic systems may be implicit or explicit; explicit assumptions about mental health are typically incorporated into theories of personality. Theories of personality make judgements in one form or another, concerning the essential features of a healthy personality, and likewise postulate the types of behaviors considered unhealthy, abnormal, or maladaptive. Some systems of psychotherapy (for example, dynamic psychology and third force psychology) are based on theories of personality; others, such as behaviorism, are not. But since all approaches are systems of psychotherapy, they include concepts of mental health. In syllogistic form the argument is as follows:

> All systems of psychotherapy embody concepts of mental health.
> Dynamic psychology, third force psychology, and behaviorism are systems of psychotherapy.
> Therefore, dynamic psychology, third force psychology, and behaviorism embody concepts of mental health.

Direction of Present Study

The purpose of the present study is to explore and empirically test two contemporary views of mental health based on different systems of psychotherapy.

The positions to be investigated are the rational-emotive position of Albert Ellis and the behavioristic orientation of Joseph Wolpe. For Wolpe's approach the underlying, implicit concept of mental health will be deduced from kinds of outcomes that the system effects, and from the theoretical rationale on which the approach is based. It

should be noted that although Wolpe's therapy is strong theoretically, the theory does not concern itself with personality except in a peripheral manner. The core of Wolpe's techniques are based on one particular division of conditioning, or learning, theory. To the extent that personality factors are acquired through classical conditioning, the theory applies, but it is not the *intent* of the theory to explain, or shed light on, personality. Nowhere does Wolpe talk about the "mentally healthy personality"; therefore, his concept of mental health must be deduced.

The other position to be explored is the rational-emotive approach of Albert Ellis. Rational-emotive personality theory, although more formalized than conditioning personality theory, does not take a firm stand on what constitutes personality, falling somewhere between behaviorism and dynamic psychology. However, Ellis is quite explicit about what he means by mental health. According to Ellis, the mentally healthy person lives according to a life-style guided by rational thought and action. By "rational" is meant a specific code of behavior (described later) to which the individual subscribes. Conversely, Ellis sees the emotionally disturbed person as one whose life-style is characterized by an irrational philosophy made up of a number of irrational, logically unfounded, beliefs.

Before looking at the specific connotation that "mental health" has for Wolpe and Ellis, it would be fruitful to briefly survey some of the more general conceptualizations of the term.

Some General Concepts of Mental Health

Despite past and current attention to personality theory and explicit positions regarding the nature of mental health, it might be said that everyone does something about mental health but no one talks about it. At first glance such a statement may be considered unfair but until recently psychologists and psychiatrists - the very people whom one would think should know what mental health is all about - rarely addressed themselves to this question. In the past it has been largely the domain of philosophy, not the social sciences. The Blair Commission report, entitled *Mental Health in Alberta,* concludes with 188 specific recommendations for improving institutions, agencies, and practices which are committed to facilitating the development of mental health, but nowhere in its 326 pages does the report actually define "mental health". The closest that the document comes to doing so is the chapter on "Objectives and Principles", the first paragraph of which reads as follows:

> The overall objectives of a mental health program obviously must be the attainment and maintenance of a high degree of mental health. This desirable goal implies more than the control of illness to keep it at the lowest possible minimum. In more positive terms, it also implies the achievement of a level of social and personal well-being, at which a population can develop its potentialities to the fullest possible extent, relatively unimpeded by mental illness or maladaptive behavior.
>
> (Blair, 1969, p. 16)

Although the report hints that mental health has something to do with "social and personal well-being" and "the realization of potentialities", the Commission neglects to take a more definite stand on

the definition of mental health.

Similarly, of ten textbooks on abnormal psychology and psychiatry picked at random, only two contained the term "mental health" in the subject index. One of the books, Alexander and Selesnick's *The History of Psychiatry*, discusses the term in two places. In the first, the authors refer to the impact the thoughts of the seventeenth century Dutch philosopher Baruch Spinoza had on some of Freud's theoretical formulations. In this regard, Alexander and Selesnick comment:

> What Freud calls mental health Spinoza calls freedom of the mind. For both of them it constituted the highest value. One's mind can become free of the power of the passions by intellectual comprehension of the total psychological situation. Spinoza calls partial insight an inadequate idea. For him just as for psychoanalysis today, the function of the intellect is an integrative one, a comprehension of all motivations and feelings in their totality. Spinoza developed a most adequate theoretical system of personality, which had to wait until Freud for its operational implementation.
> (Alexander and Selesnick, 1966, p. 100)

The second reference to mental health in *The History of Psychiatry* occurs in the context of a discussion of the influence on psychiatric thinking of the German psychiatrist Johann Christian Heinroth (1773 - 1843). The passage states:

> Mental Health for Heinroth consisted in a full assimilation within the ego of the principles of the conscience. Only those few who accomplish this union are mentally healthy, internally "free", and happy. Mental disease is derived from conflict with conscience.
> (Alexander and Selesnick, 1966, p. 142)

The second book to explicitly discuss the concept of mental health was Karl Jaspers' lengthy treatise *General Psychopathology*. An eleven page sub-section entitled "The Concept of Health and Illness" devotes little of its space to the former concept but recognizes the role of culture in defining both terms:

> The medical person is least of all concerned with what healthy and sick mean in general. He is scientifically concerned with a host of living processes and well-defined illnesses. What "sick" in general may mean depends less on a doctor's judgement than on the judgement of patients and the prevailing conception of the contemporary culture... The same psychic state will bring one individual to the psychiatrist as a sick person while it will take another to the confessional as one suffering from sin and guilt.
>
> (Jaspers, 1963, p. 780).

Jaspers later briefly traces some of the general definitions of mental health such as "a harmony of opposing forces" (Cicero), "complete contentment and need satisfaction" (the Epicureans), and "the total suppression of sentiments and feelings" (the Stoics). He concludes the discussion with a statement regarding the existential view of mental health.

> Nowadays psychiatrists see health as a capacity to fulfil "the natural potential of the human lot" . . . . . Indeed one would like to know what that might be; or similarly, a finding of the self, self-realization, or full harmonious integration into the community.
>
> (Jaspers, 1963, p. 787).

It seems rather odd that Jaspers is unwilling to accept the above existentially-oriented conceptualizations (presumably because they are too vague) when earlier he says: "A precise definition of

mental health seems pointless if we see the essence of Man as the incompleteness of his Being". (p. 787).

It is fair to say that although nearly everyone has ideas about what mental health means, it is extremely difficult to formulate a satisfactory definition. Norman D. Livergood states clearly the nature of the dilemma:

> The whole area of psychotherapy is immensely confused because there is as yet no clearly accepted definition of mental health or mental disorder. Theories and techniques of psychotherapy presuppose that there is a condition termed mental health toward which a person can be helped through psychotherapy. But as yet we have no definition for which there is adequate experimental evidence or conceptual validity.
> (Livergood, 1968, p. 20).

The foregoing excursion into some of the more general concepts of mental health was directed to illustrate some of the difficulties involved in drafting specific statements about mental health. Although there is little agreement about what "mental health" really means, probably one of the most acceptable definitions is offered by English and English who classify mental health as a "relatively enduring state wherein the person is *well-adjusted,* has a zest for living, and is attaining *self-actualization* or *self-realization.* It is a positive state and not merely absence of mental disorder". (English and English, 1964, p. 318, original emphasis).

Marie Jahoda (1958) discusses six categories of criteria used to evaluate degree of mental health: (1) attitude towards self,

(2) self-actualization, (3) personality integration, (4) autonomy or independence, (5) reality perception, and (6) environmental mastery. Freehill (1967), on the other hand, states that all models of mental health can be fitted into one or more of the following categories: (1) absence of symptomology, (2) ability to resist threatening or dangerous feelings, (3) mastery of current environmental situations, (4) "normality" in the statistical sense, and (5) a person exhibiting certain ideal qualities.

In summary, the areas of psychology dealing with counseling and psychotherapy presently find themselves in a paradoxical situation. On the one hand, no one seems able to specifically define mental health, and it has been only recently that psychologists have systematically addressed themselves to this question. On the other hand, as pointed out earlier, all systems of psychotherapy include two conditions ((1) that the client change some behaviors of his life, and (2) that the directions in which he change be designated or guided by the therapist); hence every practitioner in a helping profession does have some underlying concept of mental health. The purpose of psychotherapy, then, is to change the patient or client so that he finds himself in a better state of affairs after therapy than before. And this "better state of affairs" relies on, or is part of, what psychotherapists call "mental health", whether they indicate so explicitly or implicitly.

The Present Study

The specific concepts of mental health to be explored in the present study are those underlying the positions of rational-emotive psychotherapy, advanced by Albert Ellis, and systematic desensitization by reciprocal inhibition, formulated by Joseph Wolpe. These two therapeutic positions were chosen for a number of reasons. First, both have received increasing attention in the last five years and are now being taught in a number of graduate schools in North America, as illustrated by the number of recent dissertations addressing themselves to these positions. Secondly, the two approaches represent different major "schools" of psychotherapy. Wolpe's techniques clearly fall in the category of "behaviorism" while Ellis's principles are more like those applied by "cognitive psychology". The third reason for choosing the systems of Ellis and Wolpe is that both have strong theoretical bases that have been subjected to fairly extensive empirical investigation. Related to this third reason is the fourth justification for looking at Ellis and Wolpe: their theories are at opposite ends of a continuum in terms of conceptualization of mental health. Wolpe, in the general medical tradition, considers mental health to be the absence of psychological disorder. Ellis construes emotional health more in the vein of the English and English definition presented earlier. He views psychological health as a way of life characterized by rational self-direction. The final

reason for looking at these two approaches relates to the explicitness of their concepts of mental health. Ellis makes quite clear what he means by mental health and directs his therapy accordingly. Wolpe doesn't talk about mental health at all; consequently the kinds of behavior that he would consider characteristic of psychological adjustment must be deduced from his therapeutic approach.

In the following chapter the systems of psychotherapy practiced by Wolpe and Ellis will each be outlined in four parts: (1) a discussion of how the theorist came to develop an interest in what eventually blossomed into his present theoretical rationale; (2) a statement of the theory underlying the system of psychotherapy and how the theoretical system is employed in the psychotherapy situation; (3) a summary of some of the related research; and (4) a concluding comment relating to the theory's underlying concept of mental health.

Since the concept of mental health implied by Ellis's position is more explicit than that inferred by Wolpe's approach, the former is presented first.

CHAPTER II

THEORY AND RELATED LITERATURE

I. RATIONAL-EMOTIVE PSYCHOTHERAPY

The Beginning

Albert Ellis originated the system of psychotherapy known as rational-emotive psychotherapy (sometimes called rational therapy or, more simply RT) after many years of experience. His initial training in family and marriage counseling resulted in mainly information - giving treatment sessions; that is, he found that for the most part therapy consisted of giving specific how-to advice on such matters as sex-technique, child-rearing, and communication. Although effective in some cases, Ellis discovered that this type of therapy had its shortcomings, and he soon came to realize that unstable relationships were usually a product of unstable partners. He concluded that in order for people to live together effectively they must first be capable of living their own lives effectively, that is, they must be psychologically healthy individuals. Seeking a method to help people achieve this emotional growth, Ellis undertook training in orthodox psychoanalysis, including three years of self-analysis, as well as analyzing a number of his own patients under the close supervision of a training analyst.

Commenting on his effectiveness as a practicing psychoanalyst, Ellis (1962a) cites evidence that approximately 60% of his neurotic patients improved considerably (Ellis, 1957). Most research

evidence (e.g. Glover, 1940; Phillips, 1956), suggests this is above average for classical psychoanalysis. Still, he felt that depth analysis had not supplied him with the answers he wanted. He was dissatisfied with many aspects of its technique, his major dissatisfaction being that not enough of his patients improved, and those who did improve took a long time.

Soon Ellis found himself attempting neo-Freudian approaches, especially the methods advocated by Sandor Ferenczi, Karen Horney, Otto Rank and Harry Stack Sullivan. But he did not achieve the results expected.

Still searching, Ellis replaced the couch, free association, and dream analysis with a form of psychoanalytic-oriented therapy and for about three years, by his own admission, was one of the most active, directive psychoanalytically-oriented therapists in the business. To his pleasure, he found that his more active orientation produced better results (Ellis, 1962a). "Where in practicing classical analysis, I had helped about 50% of my total patients (which included psychotics and borderline psychotics) and 60% of my neurotic patients to significantly improve their lot, with active-directive analytically-oriented therapy I was able to help about 50% of my total patients and 70% of my neurotic patients distinctly or considerably to improve". (Ellis, 1962a, p. 8). Furthermore, the average number of sessions per patient reduced from 100 to 35.

But Ellis was still bothered because he considered few of his

patients *cured* in the sense of experiencing a minimal amount of hostility or anxiety, and he felt that even the more effective psychoanalytically-oriented techniques lacked something crucial. That something, he decided was *action*. Insight alone is not enough to dispel neurosis; the individual must go further than that and engage in anxiety-combatting behavior. So he revised his therapeutic methods to include attempts to show his patients that the fear - and anxiety-provoking events were not as terrible as they believed. For example, he would try to convince a woman who was afraid of her mother's rejection that, as a child, such a fear was appropriate but as an adult the woman need no longer fear her mother's rejection. If this woman felt obligated to have dinner with her mother every Sunday, but disliked doing so, Ellis would persuade her to do something different next Sunday on the assumption that if her mother did reject her it would not be as catastrophic as the client believed.

However, many of Ellis's patients clung to their neuroses, and he wondered why. How is it that a person can still retain fear or anxiety years after the cause of that fear or anxiety has vanished? In terms of Pavlovian conditioning principles one would expect the conditioned anxiety response to soon extinguish in the absence of an unconditioned stimulus which originally produced it. Ellis reasoned that human emotional disturbances are quite different from laboratory induced neuroses in animals, a difference which is basically due to language and the symbol-producing facility that accompanies it. This distinction is very important because

possession of language enables man to communicate, in complex ways, with others and with himself. Furthermore, it enables man to think about his thinking, or to perceive his own mental processes and how they function. Consequently, states Ellis, his patients

> were beautifully able to *imagine* or *define* fears that actually had no basis in physical or sensory punishment. In fact virtually all their neurotic fears were defined fears: that is, anxieties that were originally defined to them by others and then later carried on as their *own* definitions. More specifically, they were first *told* that it was terrible, horrible, and awful if they were unloved or disapproved; and they then kept *telling themselves* that being rejected or unapproved was frightful. This *twice-told* tale, in the great majority of instances constituted their neuroses.
> (Ellis, 1962a, p. 18, original emphasis).

Ellis gradually began to use this approach on more and more patients, pointing out that the essence of their difficulties stemmed from *telling* themselves some kind of utter nonsense, that really they were *defining* as horrible objects and/or events which, at worst, were merely annoying or inconvenient. As he used this approach, the rationale of rational-emotive psychotherapy began to crystalize until it finally emerged, in 1955, in basically its present form.

Theory and Practice: A Closer Look

The focal thesis of rational-emotive psychotherapy is that man is both rational and irrational, that most psychological difficulties are a product of irrational or illogical thinking, and that to rid himself of these emotional problems man must learn to maximize rational thinking and minimize irrational thinking. Consequently,

the psychotherapist's major task is to show the patient that psychological problems are a result of inaccurate perceptions and illogical thoughts, and that the cause of psychological difficulties can be eliminated by learning to perceive more accurately and think more rationally.

Not only is this the basis for inducing improvement in RT, according to Ellis, it is the reason that *any* form of psychotherapy works. He says:

> It is my contention .....that all effective psychotherapists, whether or not they realize what they are doing, teach or induce their patients to reperceive or rethink their life events and philosophies and thereby to change their unrealistic and illogical thought, emotion, and behavior. (Ellis, 1959c; Stark, 1961).
> (Ellis, 1962a, pp. 36-37).

Basic to the theory of rational therapy is the assumption that life involves four fundamental interrelated processes: sensing, moving, emoting, and thinking. Thinking and emotion are not two separate processes; rather, they form an integral part of the sensing-moving-emoting-thinking complex, and for all practical purposes are essentially the same. None of the four life operations are experienced apart from the others; all appear together. If you place a plate of food in front of a person, he senses (sees and smells) it, makes some motion in relation to it (begins to eat it or pushes it away), experiences some feeling about it (likes it or does not like it), and thinks about it (remembers eating that food in the past or wonders how it will taste). Change one of the parts of the complex, says Ellis, and you automatically alter the

others. Looked at in this way, emotion can be considered to be controlled and caused in several ways, one of which is by thinking.

The view of RT, then, is that sustained negative emotions are, for the most part, either a *form* of illogical thinking or the *result* of illogical thinking. The neurotic person is one who is affected less by outside events than by his attitudes, perceptions, and self-verbalized statements about these events. Many of his self-defeating ideas are ingrained by parents, the general culture, and by the mass media (Ellis, 1961c, 1962a). Ellis (1962a, pp. 60-68) has outlined eleven such irrational beliefs which pervade our culture and which, when perpetuated, lead to neurotic, self-defeating behavior. They are:

1. The idea that it is a dire necessity for an adult human being to be loved or approved by virtually every significant other person in his community.

2. The idea that one should be thoroughly competent, adequate, and achieving in all possible respects if one is to consider oneself worthwhile.

3. The idea that certain people are bad, wicked, or villainous and that they should be severely blamed and punished for their villainy.

4. The idea that it is awful and catastrophic when things are not the way one would very much like them to be.

5. The idea that human unhappiness is externally caused and that people have little or no ability to control their sorrows and disturbances.

6. The idea that if something is or may be dangerous or fearsome one should be terribly concerned about it and should keep dwelling on the possibility of its occurring.

7. The idea that it is easier to avoid then to face certain life difficulties and self-responsibilities.

8. The idea that one should be dependent on others and needs someone stronger than oneself on whom to rely.

9. The idea that one's past history is an all-important determiner of one's present behavior and that because something strongly affected one's life, it should indefinitely have a similar effect.

10. The idea that one should become quite upset over other people's problems and disturbances.

11. The idea that there is invariably a right, precise, and perfect solution to human problems and that it is catastrophic if this perfect solution is not found.

According to Ellis these are the basic causes which lead to most psychological disturbances. The task of the rational-emotive therapist is to show the patient that he has learned (from his parents, peers, church, reading materials, movies, television, etc.), some irrational philosophies about life and is having difficulties because he perpetuates these ideas through self-verbalization. This is usually illustrated by what Ellis calls the A-B-C theory of neurosis. Using this technique, the therapist labels the patient's problem (e.g. severe anxiety) as C, and the phenomenon that the patient *believes* to be the cause of his problem (e.g. fear of failure) as A. The patient argues that A causes C, but the therapist quickly points out that the real cause of C is not A but B, where B represents some illogical oft-repeated statement (e.g. that it would be terrible if he failed because unless he is perfect in everything he does, he is worthless as a human being). The therapist then gets the patient to recognize the B's in his problem and actively counter-propagandizes them by pointing out their irrationality. He also teaches the patient

to defeat such illogical ideas himself, both through rational self-encounter and action (e.g. risking failure by engaging in some difficult task). Once the B's are defeated, C (the problem behavior) is eliminated if the patient has substituted a rational philosophy of life for his previously irrational one.

Research

Empirical investigations exploring the tenets of rational-emotive psychotherapy have been essentially of three kinds: (1) reports and case histories regarding its clinical effectiveness, (2) development and application of inventories designed to measure the irrational beliefs most common to western man, and (3) experimental studies comparing RT with control procedures.

Ellis (1957, 1962a) reports that approximately 90% of patients who have engaged in rational-emotive therapy for ten or more sessions show considerable or distinct improvement. It has been used to combat academic underachievement (Rand, 1969, 1970), severe depression (Hauck, 1971; Jarrell, 1969), frigidity (Ellis, 1961b, 1962a; Sella, 1969), guilt feelings (Ellis, 1971b; Geis, 1970), homosexuality (Becker, 1969; Ellis, 1956b, 1959a, 1959b, 1971a); marital and premarital problems (Ard, 1967a, 1967b, 1969; Bedford, 1969; Ellis, 1956a, 1958a, 1960, 1961a, 1962a, 1966; Gullo, 1971; Harper, 1960a, 1960b, 1967), masochism (Ard, 1971), phobias (Hauck, 1966; Maultsby, 1971), psychopathy (Ellis, 1961d, 1962a), rehabilitation problems (Ard, 1968), and schizophrenia (Ellis, 1955, 1958b, 1962a).

A number of instruments have been constructed to identify the irrational beliefs outlined by Ellis (1962a). One of the earliest of these was a 122 item inventory devised by Zingle (1965). Zingle's instrument, called the Irrational Ideas (I-I) Inventory has subsequently been revised and refined by Conklin (1965) and Davies (1970). Other techniques for measuring frequency and number of irrational ideas have been constructed by Argabrite and Nidorf (1968), Gustav (1968), and Hartman (1968).

The first documented attempt to compare the efficacy of rational-emotive therapy with other psychotherapeutic approaches was conducted by Ellis (1957). As mentioned earlier, Ellis at one time practised orthodox psychoanalysis, then psychoanalytically oriented psychotherapy and, finally, RT. For the study under discussion, Ellis withdrew from his files 78 closed cases of persons treated with RT and matched them (on age, sex, education, and diagnosis) with 78 cases of individuals who had been treated using psychoanalytically-oriented psychotherapy. Each group contained 61 neurotics and 17 borderline psychotics all of whom had been seen for at least 10 sessions. Since Ellis routinely rated each person's improvement on a three-point scale (little or no improvement, some distinct improvement, considerable improvement), he had a rough measure by which to compare the three methods of therapy. In terms of percentages of success, the results were as follows. Orthodox psychoanalysis: little or no improvement, 50%; distinct improvement, 37%; considerable improvement, 13%. Psychoanalytically-oriented psychotherapy: little or no improvement, 27%; distinct

improvement, 45%; considerable improvement, 18%. Rational-emotive therapy: little or no improvement, 10%; distinct improvement, 46%; considerable improvement, 44%.

Zingle (1965) was the first to employ no-treatment control group procedures in testing the success of RT. Sixty high school underachievers were assigned to one of four groups, each group matched for degree of underachievement, scholastic aptitude, grades, sex, and socio-economic status. Each student in Group A received approximately eight individual sessions of rational-emotive counseling, each session lasting 25 - 35 minutes; students in Group B saw a school counselor for the same amount of time as students in Group A, however, they underwent regular school counseling with emphasis being placed on study skills and schedules; Group C received "laggard student" letters which threatened to expel them if grades were not improved (parents of "laggard students" also were sent copies of the letter); Group D underwent no treatment. In terms of pre-post measures of marks and irrational ideas, there was a statistically significant difference between Group A and Group D, indicating that RT is more effective than no treatment.

Sharma (1970) applied RT in a group setting, using anxious high school underachievers as subjects. Students were assigned to one of four groups: Group A received rational group therapy; students in Group B were taught rational ideas but were not encouraged to relate them to their daily lives; Group C was taught study skills; Group D received no treatment. The first three groups met for 50 minutes each

week for nine weeks. Pre-post treatment measures were taken of irrational ideas, anxiety, and grades. At post treatment a significant difference was found in irrational ideas for groups A and D. Furthermore a five month follow-up evaluation showed that students in Group A had significantly higher grades than students in any of the other three groups.

Four other studies reported in the literature utilized controlled experimental procedures to examine the effectiveness of rational-emotive therapy. Burkhead (1970) induced anxiety in subjects by causing them to expect electric shocks. Anxiety was measured by GSR recordings and responses on the Multiple Affect Adjective Check List. Four groups were employed: (1) RET by personal therapist contact; (2) RET by tape recording; (3) instructions on tape designed to inculcate irrational ideas; and (4) control procedure during which subjects read magazines. The first two groups showed a significant reduction in anxiety while the third group displayed a significant increase in anxiety. DiLoreto (1970), who compared the relative effectiveness in reducing anxiety of group RT, group client-centered therapy, group systematic desensitization, and no treatment, found each of the first three methods to be superior to the fourth. Moreover, RT was the most successful method for introverts; client-centered therapy was the best for extroverts; and systematic desensitization was equally effective with both introverts and extroverts. A related finding is reported by Meichenbaum, et.al. (1971) who

investigated the effectiveness of group RT and group systematic desensitization in reducing speech anxiety. They too report these two treatments to be superior to no treatment; however, they also found that RT was most effective with subjects who were generally socially anxious (as measured by scores on the Social Avoidance and Distress Scale), while systematic desensitization was more effective with persons who were specifically speech anxious. Public-speaking anxiety was also explored by Karst and Trexler (1970) who treated speech-anxious subjects for three sessions with one of: group fixed-role therapy, group rational-emotive therapy, and no treatment. Again, both therapies were more successful than no treatment, while there was a tendency for fixed-role therapy to be more effective than rational-emotive therapy.

Concept of Mental Health

Rational-emotive theory places great emphasis on the importance of rationality for effective living. According to the theory, a psychologically healthy person is one who rarely manifests irrational ideas. Conversely, the theory holds that an emotionally disturbed individual is one who frequently manifests irrational ideas.

There is some empirical support for these considerations. Davies (1970), utilizing a 60-item Adult Irrational Ideas (A-I-I) inventory, found that both mental hospital patients and alcoholics have significantly more irrational beliefs than the population in general. Similarily,

positive relationships have been reported between irrationality and: anxiety (Taft, 1968; Winship, 1972), behavior problems in school (Hoxter, 1967), depression (Beck, 1966; Shapiro, Neufield, and Post, 1962), marital maladjustment (Eisenberg, 1971), and underachievement (Conklin, 1965).

II. SYSTEMATIC DESENSITIZATION BY RECIPROCAL INHIBITION

The Beginning

Joseph Wolpe was educated in South Africa, where he received an M.B. (1939), B.Ch. (1939), and M.D. (1948) from the University of Witwaterstrand in Johannesburg. From 1949 to 1959 he lectured in psychiatry at Witwaterstrand except for the academic year 1956-1957 which he spent as fellow at Stanford's Centre for Advanced Study in Behavioral Sciences. During the years 1960-1965 he was a professor of research and clinical psychiatry at the University of Virginia Medical School in Charlottesville, Virginia. After that he accepted the post of professor of psychiatry at the Temple University School of Medicine in Philadelphia, where he is presently teaching.

According to Patterson (1966), the ideas which eventually culminated in the theory of systematic desensitization by reciprocal inhibition began forming in 1944 when Wolpe was serving as a medical officer in the military. It was during this time he began to question the basic postulates of psychoanalysis. He wondered why psychoanalysis was not practiced in the Soviet Union. This puzzlement led him to read Pavlov, then Hull, and later, studies concerning the

experimental production of neuroses in animals. As a consequence of these readings, and guided by Hull's concept of "conditioned inhibition", Wolpe began conducting his own experiments with cats. In these experiments he induced neurotic behaviors through the use of electric shock, then proceeded to "rehabilitate" the animals by having them eat while exposed to small, and then gradually increasing, intensities of anxiety-producing stimuli. The "treatment" was a success in every case, and Wolpe hypothesized it was because the eating behavior inhibited the previously dominant anxiety responses. Subsequent presentations of these stimuli increased the buildup of conditioned inhibition until they no longer evoked anxiety; that is, their anxiety-evoking potential became zero.

Observations based on these studies led, in about 1948, to the following principle of reciprocal inhibition:

> If a response antagonistic to anxiety can be made to occur in the presence of anxiety-evoking stimuli so that it is accompanied by a complete or partial suppression of the anxiety responses, the bond between these stimuli and the anxiety responses will be weakened.
> (Wolpe, 1958, p. 71).

Since the above formulation was based only on Wolpe's experiments with cats, its potential for use in psychotherapy depended on two related questions: (1) What responses, other than eating, could be used to inhibit anxiety? (2) Could these anxiety-inhibiting responses be applied to human neuroses?

In search of possible answers to these questions, Wolpe used the following argument. Anxiety responses are predominantly para-

sympathetic, involving the parasympathetic division of the autonomic nervous system. Although in some circumstances the parasympathetic and sympathetic divisions function in unison, most of the time they act in opposition so that one or the other is dominant. Therefore, responses which implicate the sympathetic division should prove antagonistic to anxiety. This line of reasoning led Wolpe to attempt the three classes of responses that he presently uses most often in therapy: assertive responses, sexual responses, and relaxation responses.

Theory and Practice: A Closer Look

The essence of the theory underlying systematic desensitization by reciprocal inhibition has been outlined above. If we use relaxation as an example, in effect the theory states: since relaxation responses are governed by the sympathetic division of the autonomic nervous system while anxiety responses are under the auspices of the parasympathetic division, and these two divisions function in opposition to one another, it is therefore physiologically impossible to be both relaxed and anxious at the same time. Consequently, if while in a state of deep relaxation, the patient is exposed to a weak anxiety-evoking stimulus, the stronger response of relaxation results in conditioned inhibition of the weaker response of anxiety. Subsequently, higher and higher intensities of the stimulus can be presented without evoking anxiety.

The practice of desensitization involves three operations: (1) Muscle relaxation, (2) Building anxiety hierarchies, and (3)

desensitization proper.

For most patients, relaxation is taught during one-half of the session for approximately the first six sessions. The method most often used is an abbreviated form of the progressive relaxation procedure outlined by Edmund Jacobson (1938), although Wolpe uses hypnosis with about ten percent of his patients, and occasionally induces relaxation by administering a mixture of 65% carbon dioxide and 35% oxygen (Wolpe, 1958, 1969).

Usually the second half of the first six interviews is devoted to constructing anxiety hierarchies, which are lists of anxiety-provoking stimuli having a common theme. The items in the hierarchy are rank-ordered in descending order of intensity, that is, the first item on the list produces the most anxiety and the last item on the list produces the least anxiety. An example of an anxiety hierarchy with the theme "examination series" follows (Wolpe, 1969, pp. 117-118).

1. On the way to the university on the day of an examination.
2. In the process of answering an examination paper.
3. Before the unopened doors of the examination room.
4. Awaiting the distribution of examination papers.
5. The examination paper lies face down before her.
6. The night before an examination.
7. One day before an examination.
8. Two days before an examination.
9. Three days before an examination.
10. Four days before an examination.
11. Five days before an examination.
12. A week before an examination.
13. Two weeks before an examination.
14. A month before an examination.

The data, which is the basis for the hierarchies, comes from

four sources: (1) A detailed clinical history of the patient; (2) The patient's responses on the Willoughby Personality Schedule; (3) The patient's responses on the Fear Survey Schedule; (4) Verbal exploration of other possible areas in which the patient experiences maladaptive anxiety. For any given patient the number of common themes used to classify the hierarchies may vary from one to many, although usually no more than four are required. To aid in quantifying the amount of intensity of anxiety evoked by each item, Wolpe uses what he calls "subjective units of disturbance" (SUDS). Using this technique, he tells the patient to imagine the most severe anxiety state he has ever experienced and label that 100 suds. Then he is to imagine a time when he was completely calm and relaxed; that state is assigned the value 0 suds. Now the patient has a scale according to which he can rate each item in each hierarchy. Wolpe (1969) considers as satisfactory a difference of five to ten suds between subsequent items on a hierarchy. Of course, there is room for leeway here, although a difference of, say, 25 or 30 suds between any two items indicates a need for intervening ones.

Desensitization proper is essentially the same counter-conditioning procedure used by Mary Cover Jones in 1924 with two exceptions: (1) the response antagonistic to anxiety is relaxation rather than eating, and (2) the anxiety-evoking stimuli are presented in imagination rather than *in vivo*. First the patient is relaxed, then asked to imagine a neutral, or control, scene such as lying on his back on a soft lawn watching clouds drift overhead (Wolpe, 1969, p. 125). The purpose of the control scene is to give the therapist some idea of

how well the patient visualizes nonanxiety-provoking material, and to provide information about possible contaminating factors such as fear of letting oneself go or losing control. If the patient remained calm and relaxed during the control scene, the method most often used in the past for presenting the remaining hierarchical scenes is as follows. The patient is told that he is going to be asked to imagine a number of scenes. He is to visualize them as vividly and clearly as he can. If at any time during the presentations, the patient feels worried or disturbed, he is to indicate this by raising the index finger of his right hand. Generally, each scene is presented 2 - 4 times for a duration of 5 - 7 seconds with intervals between scenes of 10 - 20 seconds. When the patient signals anxiety, usually the last successful scene is presented again. Desensitization sessions never end with an unsuccessful scene. A single desensitization session usually lasts 15 - 30 minutes; the number of scenes presented per session varies from about 10 to 50 depending upon the patient's visual ability as well as the stage of therapy; the number of sessions required can be as few as 6 or as many as 100 but the average number of sessions per hierarchy is about 12 (Wolpe, 1969, p. 148).

Wolpe (1969) has recently modified the procedure outlined above. Using the revised technique, the patient is asked to raise his index finger as soon as he begins to visualize the present scene. The therapist lets the scene last for 5 - 7 seconds, then terminates it by saying "Stop the scene". Upon termination the patient is asked to describe how much the scene disturbed him in terms of suds. Although speaking disrupts

relaxation more than raising a finger does, Wolpe feels this modified method is superior in that it provides quantitative information concerning scene duration and level of anxiety.

Research

The following studies provide illustrations of these two conclusions: (1) Research conducted on systematic desensitization has in the past focussed almost exclusively on the implementation of relaxation responses as reciprocal inhibitors of anxiety. (2) Although such research does not deal directly with the efficacy of assertive responses, which will be the major focus of this study, it does provide evidence to support Wolpe's general therapeutic position and thereby indirectly offers legitimacy for the construct "assertiveness". An extensive summary of the reported literature involving systematic desensitization has been compiled by Gordon L. Paul (1969a, 1969b) of the University of Illinois. He divides the outcome research into two categories: (1) studies relying on uncontrolled reports of individual treatment attempts, that is, case history material; and (2) controlled investigations of the systematic desensitization procedure or, in other words, experiments which have included control measures that allow the researcher to make more definite conclusions regarding cause-effect relationships between treatment procedure and outcome.

In the first category Paul (1969a) includes 51 published reports, the best of which are documented by Wolpe (1952, 1954, 1958, 1961, 1962); Lazarus (1960, 1963a, 1963b, 1964a, 1964b, 1965a, 1965b,

1965c); Lazarus and Rachman (1957); Hain, Butcher, and Stevenson (1966); and Lazovik and Lang (1960). These accounts include over 400 patients ranging in age from 11 - 68 years, and cover a wide range of disturbances; for example, some of the presenting problems were agoraphobia, claustrophobia, depression, inferiority complexes, obsessions, kleptomania, exhibitionism, impotence, frigidity, stuttering, shyness, ejaculatio praecox, social and generalized anxieties, and numerous psychosomatic disorders. Success rate varied from 75 - 92% with an average improvement rate of approximately 82%.

Four series from the second group of outcome studies explored by Paul (1969b) will be briefly mentioned: two dealing with individual treatment sessions and two involving treatment applied in group settings. The former studies are those conducted by Lang (Lang, 1964, 1965; Lang and Lazovik, 1963; Lang, Lazovik, and Reynolds, 1965); and by Paul (1964, 1966, 1967). The latter experiments are comprised of those investigated by Lazarus (1961, 1968) and by Burnett and Ryan (1964).

The Lang series mentioned above used systematic desensitization with university students having severe fears of nonpoisonous snakes. The series concluded that the systematic desensitization procedure was significantly more effective than: (a) no treatment; (b) attention in the form of evaluation procedures, (c) assessment and hierarchy construction combined with training in hypnotic and progressive relaxation procedures and subsequent evaluation, (d) assessment only, and (e) "pseudotherapy" which consisted of a somewhat psychoanalytic treatment

orientation followed by visualization of nonanxiety-provoking scenes.

In the Paul series, subjects were assigned to one of five groups: (1) systematic desensitization, (2) insight therapy, (3) attention-placebo treatment, (4) no-treatment controls who were told they were being placed on a waiting list, and (5) no-contact control group whose members were never contacted for assessment and were, therefore, not aware of their participation in the study. The systematic desensitization group showed significantly greater improvement than any of the other four groups both at treatment termination and at a six-week follow-up. Furthermore, during a 25 - 27 month follow-up study the percentage of subjects showing significant improvement according to the various groups was as follows: systematic desensitization, 85%; insight therapy, 50%, attention-placebo, 50%; and untreated controls 22%.

The first report of systematic desensitization applied to groups was supplied by Lazarus (1961). Subjects complaining of acrophobia, and claustrophobia were divided into matched pairs on the basis of age, sex, and type of phobia and randomly assigned to one of the two homogeneous groups. One group received systematic desensitization; the other group underwent interpretive therapy. Of the 18 people in the desensitization group, 13 were classified as recovered while for the interpretation group two out of the 17 received the same classification.

Lazarus (1968) reported the use of group desensitization with

outpatients referred because of sexual problems. One group consisted of three impotent males (ages 26 - 32) who underwent five sessions over a period of seven weeks. The other group was composed of three frigid women (ages 24 - 33) who had a total of 14 sessions in 14 weeks. For both groups, assessment of outcome was based on spouses' reports. Treatment was successful for all six patients and follow-up investigations (for the men, two years after treatment termination; for the women 6 months) showed no indications of relapses.

Large-scale group desensitization was attempted by Burnett and Ryan (1964) who claim to have applied the technique to over 100 inpatients (33 males, 67 females; mean age 42) over an eight-month period at St. John's Mental Hospital in Newfoundland. Few details were reported concerning problems treated or assessment procedures; however, the authors do mention that average stay at the hospital was five weeks. Of the 25 patients on whom data is available, 15 were rated "apparently cured or much improved", 8 "moderately improved", 2 "slightly improved", and none "unimproved".

Concept of Mental Health

Before dealing directly with Wolpe's concept of mental health we should first look at his ideas about neurosis and his views on the effectiveness of other forms of psychotherapy.

From the preceding discussion of Wolpe's techniques, it is not surprising to discover that he emphasizes the conditioning, or learning

aspect of neurosis. He views neurosis as maladaptive behavior patterns, or habits, that the individual acquires as a result of experience. To use Wolpe's own words: "neurotic behavior is any persistent habit of unadaptive behavior acquired by learning in a physiologically normal organism". (Wolpe, 1958, p. 32). Patterson (1966) contends that Wolpe has since modified this definition of neurosis. In a personal communication on August 6, 1964, Wolpe told Patterson: "Schizophrenics and other abnormal organisms can develop neurotic reactions". (Patterson, 1966, p. 177). Thus Wolpe no longer defines neurotic behavior exclusively in terms of a "physiologically normal organism". Nevertheless he still considers it learned behavior, in which anxiety plays a central role. In his first book on reciprocal inhibition, he states: "Anxiety is usually the central constituent of this (neurotic) behavior, being invariably present in the causal situations". (Wolpe, 1958, p. 32).

Wolpe (1958), referring to a study done by Wilder (1945) which showed that the psychotherapeutic results obtained by hospitals, clinics, and private practitioners were much the same, argues that Wilder's finding suggests that the factor responsible for positive change was not what the therapists thought it was (i.e. theoretical orientation) but instead was some feature common to all approaches. The only common factor was that the patient revealed, in strict confidence, what he thought his difficulties were, the person to whom he revealed them being a therapist whom he thought could assist in overcoming these difficulties. Such, says Wolpe, is the prevailing feature of all forms

of psychotherapy. In most patients this type of situation excites emotional reactions which, if of sufficient strength, are usually antagonistic to anxiety, thereby reciprocally inhibiting it. Consequently, therapeutic effects usually occur regardless of the therapist's orientation, providing the interview situation does not arouse too much anxiety. Commenting on this Wolpe states:

> One alternative to relaxation is also frequently an inadvertent facilitator of the effects of relaxation-therapist-evoked counter-anxiety emotional responses. These, arising spontaneously in many patients in the therapist's office, are probably the basis of the non-specific therapeutic effects observed in all forms of therapy.
>
> (Wolpe, 1969, p. 157).

What exactly are the "therapist-evoked counter-anxiety emotional responses" that Wolpe is referring to? In an earlier book he remarked:

> ....we wish to suggest that when nonbehaviorally oriented therapists obtain favorable results this is often due to their patients having become more assertive. Although these therapists do not explicitly teach assertive behavior, the therapeutic interchanges may lead to a feeling of support which engenders such behavior.
>
> (Wolpe and Lazarus, 1966, p. 48).

In defence of this contention, Wolpe refers to studies by Seitz (1953) and by Storrow and Spanner (1962) which suggest that the only patients to improve in psychotherapy are those who felt encouraged by the therapeutic atmosphere to "act out" even though the therapist himself may have explicitly discouraged such behavior. Assertiveness,

as Wolpe defines it, refers not only to aggressive behavior but also to the outward expression of such feelings as friendliness and affection. That assertiveness does inhibit anxiety is supported by Soviet research (Siminov, 1967) which has documented evidence of the presence in the midbrain of clearly separate and reciprocally inhibitory locations for anxiety and anger.

Wolpe's argument can be summarized as follows:

1. Neurotic behavior is learned.
2. Anxiety is the core component of all neurotic behavior.
3. All effective forms of psychotherapy elicit in the client emotional reactions which reciprocally inhibit anxiety.
4. These anxiety-inhibiting emotional reactions are, for the most part, assertive behavior.

From what has been said to this point, we can deduce that Wolpe views mental health as the absence of maladaptive behavior patterns. Given that neurotic behavior is learned, maladaptive habits, characterized by anxiety, and that, in everyday experience, the most common inhibitor of anxiety is assertive behavior, it can be concluded that the mentally healthy person usually would be more assertive than the emotionally disturbed, or neurotic person.

III. SUMMARY AND PURPOSE OF STUDY

Summary

From the foregoing discussion it is clear that Wolpe and Ellis

take quite different views on psychotherapy and the meaning of mental health.

Wolpe considers therapy to involve the detachment of neurotic responses from objectively harmless stimuli; consequently mental health is the absence of emotional disorders. Because anxiety is central to all neuroses, the psychologically healthy person will employ more anxiety-inhibiting responses than will the emotionally maladjusted person. Furthermore, if, as Wolpe maintains, the most common inhibitor of anxiety in daily life is assertive behavior, then we can expect the mentally healthy individual to exhibit more assertiveness than the psychologically disturbed individual.

Ellis's theory is more explicit regarding the nature of mental health. Although rational-emotive therapists accept the learning theorists' position that human beings become neurotic or psychotic largely as a result of conditioning, they do not believe that symptom-removal is extensive enough in scope. Ellis maintains that what is required is the restructuring of the client's basic philosophy of life into a conceptual framework which will provide him with techniques for resolving not only his present problems but future difficulties as well. Mental health, according to the rational-emotive therapist, is characterized by a rational approach to life and its accompanying dilemmas. Consequently, an emotionally stable person will possess fewer irrational ideas about the world than an emotionally disturbed person.

Ellis would agree that a mentally healthy person displays assertive behavior but he would argue that assertiveness is not sufficient to guarantee mental health. For Ellis, the emotionally adjusted individual is the rational individual. And although the rational person is assertive, the assertive person is not necessarily rational.

In summary, Ellis's argument is the following:

All rational persons are mentally healthy.
All mentally healthy persons are assertive.
Therefore, all rational persons are assertive.

Wolpe would agree that the psychologically stable person has few irrational beliefs about the world: for example, it is irrational for an individual to fear open spaces. To Wolpe the crucial factor in psychological health is not a function of the cortex, as Ellis believes, but of the subcortical brain stem where emotional reactions can be explained by the classical conditioning paradigm. Consequently, a rational approach to life is not sufficient for mental health unless the necessary reciprocal inhibitors of anxiety are present as well. Wolpe argues that the mentally healthy person is the assertive person, and although an assertive person is rational, a rational person is not necessarily assertive.

In syllogistic form, Wolpe's reasoning is as follows:

All assertive persons are mentally healthy.
All mentally healthy persons are rational.
Therefore, all assertive persons are rational.

These two conflicting points of view are depicted by Figure I in which R refers to "rational behavior" and A refers to "assertive behavior".

Ellis Wolpe

Figure I: Relationship Between Ellis's Concept of Rationality and Wolpe's Concept of Assertiveness.

Figure I illustrates that, according to Ellis, assertive behavior is more than rational behavior, while for Wolpe rational behavior is not necessarily part of assertive behavior. In other words, Ellis's theoretical position claims that all rational people are assertive but not all assertive people are rational. Wolpe's concept of mental health, on the other hand, implies the converse: that all assertive people are rational but not all rational people are assertive.

Purpose of the Study

The present study seeks to investigate the conclusions arrived at above. More specifically, it proposes to explore four basic questions:

1. Are mentally healthy people more assertive than emotionally disturbed people?
2. Do mentally healthy people hold fewer irrational ideas than emotionally disturbed people?
3. Is Ellis's concept of mental health valid to the extent that rational people are also assertive?
4. Is Wolpe's view of mental health valid to the extent that assertive people are also rational?

CHAPTER III

METHODOLOGY

Procedure

In order to obtain measures of rationality and assertiveness, the Adult Irrational Ideas Inventory (See Appendix A) and the Social Acquiescense Scale (See Appendix B) were administered to 65 psychiatric inpatients sampled from the populations of psychiatric inpatients of three urban general hospitals in Alberta. At the time they completed the questionnaires, none of the patients was under the influence of drug therapy or electro-convulsive shock therapy.

For comparison purposes, the Adult Irrational Ideas Inventory (hereafter called the A-I-I Inventory) and the Social Acquiescence Scale (hereafter called the SA Scale) were also administered to 86 people from the general population of the noninstitutionalized Edmontonians.

Age and sex of all subjects was compiled, and all inventories were completed on a voluntary basis.

Definition of Terms

To investigate the questions addressed in Chapter II, the following operational definitions are required:

1. Psychologically maladjusted, or emotionally disturbed, people are subjects from the psychiatric inpatient sample.

2. Mentally healthy, or normal, people are subjects from the general Edmonton sample. (Although these people cannot be considered "mentally healthy" in any absolute sense of the term, it can be argued that people in the general sample are "mentally healthier" than people in the psychiatric sample since the latter, by virtue of their hospitalization and program of treatment, are defined as being psychologically maladjusted to the extent that they cannot function outside the hospital setting).

3. Rational people are those persons whose A-I-I Inventory fell below the median for the normal sample.

4. Assertive people are those persons whose SA Scale scores fell below the median for the normal sample.

Sample

Normal Group

In order to obtain names and addresses of people in the general Edmonton population, *Henderson's Greater Edmonton Directory*, a list of all city residents 18 years of age and over, was consulted. Three hundred names were randomly selected in the following manner. Since names appear on Pages 2 - 989 inclusive, 300 numbers between 2 and 989 were randomly selected to determine which pages to consult. Each page contains three columns of names which was further divided into four quadrants containing 22 names per quadrant. Names to be selected from the consulted pages were then determined by randomly selecting 300 numbers between 1 and 3 (for column number), 300 more between 1 and 4 (for quadrant number), and 300 between 1 and 22 (for subject number within quadrant).

A copy of the A-I-I Inventory, an I.B.M. answer sheet, an SA

Scale, and a covering letter (See Appendix C) were mailed to each of the 300 people selected. Of these, 39 were returned for the following reasons: incorrect address, 29; recipient refused to answer questionnaire, 6; recipient deceased, 2; recipient senile, 1; recipient brain damaged, 1.

Eighty-six subjects (47 females, 39 males) returned scorable questionnaires. Mean age for the group was 37.49 years.

Inpatient Group

A-I-I Inventories, I.B.M. answer sheets, and SA Scales were delivered to the psychiatric units of three general hospitals: the Calgary General Hospital, the Edmonton General Hospital, and the Misericordia Hospital (Edmonton). Instructions were enclosed regarding information desired (age, sex, psychiatric diagnosis) and administration (to be given only to those patients not under the influence of chemotherapy or E.C.T., to be completed on a voluntary basis). Questionnaires from respondents under the age of 18 were excluded from the sample.

The psychiatric inpatient sample was comprised of 43 females and 22 males with a mean age of 36.08 years. In terms of diagnostic classification, there were 57 neurotics, 6 psychotics, and 2 character disorders.

Instrumentation

Adult Irrational Ideas Inventory

The sixty-item Adult Irrational Ideas (A-I-I) Inventory

(Davies, 1970; Fox and Davies, 1971) is based on the Irrational Ideas Inventory constructed by Zingle (1965) to measure the extent to which high school students exhibit the eleven irrational beliefs outlined by Ellis.

The questions constituting the A-I-I Inventory were taken from a pool of 130 items comprised of the 122 statements from Zingle's test (reworded so as to apply to adults) as well as an additional eight items. From the total item pool 99 were selected (nine items for each irrational idea) to make up the initial draft of the A-I-I Inventory. Each item on the instrument was a single statement to which the subject indicated his degree of agreement on a five-point scale ranging from "strongly agree" to "strongly disagree". The statements were worded in such a way that for some strong agreement reflected rationality, while for others strong agreement indicated irrationality. Scoring consisted of allotting a weight of one to the most rational choice. Thus, the higher the score, the greater the degree of irrationality.

The initial A-I-I Inventory was administered to 123 subjects (57 males, 66 females) in the age range 13 to 75 years, and the resulting responses were item analyzed. The 60 items which had a correlation of .18 or higher with the total score on the test (that is, $p = .05$ for each item) were selected to comprise the final draft of the A-I-I Inventory.

Reliability

A test-retest reliability check of the A-I-I Inventory

(undertaken by administering the instrument to 110 senior education students, with a three-week interval between administrations) yielded a Pearson r of .767.

The Kuder-Richardson formula 20 was also calculated on both the pretest and posttest scores, resulting in coefficients of .743 and .779.

Validity

Empirical evidence of the validity of the A-I-I Inventory is primarily indirect due to the difficulty in sampling and quantifying observable incidents of irrational behavior which could be used for predictive or concurrent validity estimates. However, the indirect evidence of construct validity is substantial. For example, rational-emotive theory (Ellis, 1962a) would predict that forms of emotional disturbance such as anxiety, marital maladjustment, and psychiatric disorders correlate with irrationality. As was reviewed in Chapter II, findings of this nature have been consistently reported; thus the A-I-I Inventory may be considered to have construct validity.

Social Acquiescence Scale

The Social Acquiescence Scale was first developed in 1956 (Bass, 1956). Since then it has been incorporated into a more comprehensive instrument, the Famous Sayings Test (Bass, 1958), designed to provide measures of four psychological dimensions: Conventional Mores, Hostility, Fear of Failure, and Social Acquiescence (SA).

Only those questions purported to measure the SA variable were employed in the present study. Therefore, the following description focuses on SA and omits the other three measures. The scale is presented in Appendix B.

The Social Acquiescence Scale is comprised of 56 statements, each preceded by three blank spaces --- one representing "yes", one representing "no", and one representing "cannot decide". The respondee simply places an "X" in the space corresponding to his answer. There is no time limit. Total score is the number of "yes" responses.

According to Bass (1958), "Persons high in Social Acquiescence tend to accept *any* generalizations about human behavior..... Such people appear to be 'outward-oriented', insensitive, non-intellectual, socially uncritical individuals -- unquestioning conformists to social demands". (Bass, 1958, pp. 481-482). Consequently, the more contradictory statements that a person agrees with, the higher his degree of social acquiescence or conformity. Conversely, it can be argued that a low SA score reflects nonconformity, independence, or assertiveness.

Reliability

Bass (1958) reports a split-half reliability coefficient of .92 based on results from 100 subjects.

The Kuder-Richardson formula 21 coefficient obtained from the responses of 1491 college freshmen was .81 (Bass, 1958)

Validity

Fryre and Bass (1958) administered the SA Scale to 40 persons

engaged in small group (n=5) discussions. Correlation coefficients were calculated between SA scores and (a) the tendency for a person to accept decisions of the group, and (b) the tendency for a person to agree with others after a discussion. The resulting correlations were .36 and .39 respectively Both coefficients are significant beyond the .05 level.

Bass (1958) reports product-moment correlation coefficients between SA and a variety of measures. Statistically significant positive correlations have been found between SA and sociability ($r = .34$, $p < .05$), desire to help ($r = .45$, $p < .05$), and positive attitudes toward others ($r = .42$, $p < .05$). Negative correlations are reported between SA and supervisory aptitude ($r = -.23$, $p < .05$), and empathy ($r = -.34$, $p < .10$).

Similarly, Bass (1961) mentions an unpublished study by Murstein in which a correlation of .45 was obtained between SA scores and Q-sort ratings of self-dissatisfaction.

Vidulich and Bass (1960) report correlations of .40 ($p < .01$) between SA and dogmatism (measured by Rokeach's Dogmatism Scale), and -.25 ($p < .01$) between SA and objectivity (measured by the 16 PF Questionnaire).

These findings suggest that the SA Scale is probably a useful instrument for measuring social acquiescence.

Hypotheses

The following four research hypotheses were investigated:

1. There will be a significant difference on the mean A-I-I-Inventory scores between the normal sample and the psychiatric inpatient sample.
2. There will be a significant difference on mean SA Scale scores between the normal sample and the psychiatric inpatient sample.
3. All highly rational subjects (i.e., those with low A-I-I Inventory scores) will be highly assertive (i.e., have low SA Scale scores).
4. All highly assertive subjects will be highly rational.

Statistical Analyses

Hypothesis Number 1

To determine whether the normal sample and the inpatient sample may be considered to have come from the same population in terms of the variable rationality, a two-way analysis of variance was performed on the A-I-I Inventory Scores. The two factors were: (a) mental health, and (b) sex. Each factor had two levels: (a) (normal vs. maladjusted), and (b) (male vs. female). Analysis of the sex variable was included since Davies (1970) found that women scored significantly ($p < .01$) higher on the A-I-I Inventory than men.

Hypothesis Number 2

To determine whether the two samples differed in terms of the variable assertiveness, a two-way analysis of variance was applied to the SA Scale scores. As with the analysis of A-I-I Inventory scores, the two factors were mental health and sex.

Hypotheses Number 3 and 4

To test Ellis's concept of mental health, the following argument was employed. As discussed in Chapter II, Ellis claims that mentally healthy people are highly rational and, further, that those who are rational will also be assertive. However, there should be no people who are high in rationality and low in assertiveness. Wolpe, on the other hand, asserts the opposite; that is, that mentally healthy people are assertive people, and that everyone who is assertive will also be rational. Therefore, if Wolpe's concept of mental health, as it was deduced in Chapter II, is valid, there should be no people who are high in assertiveness and low in rationality.

The argument can perhaps be more clearly outlined in reference to the scatterplots presented in Figure 2.

Suppose that neither Ellis nor Wolpe is correct regarding mental health, in other words, that rationality and assertiveness are linearly related. If such is the case, then a scatterplot similar to that in Figure 2a should be obtained. Since the scatterplot forms a perfect ellipse, the number of people in Quadrant A would be the same as that in Quadrant C (and similarly for B and D) except for deviation due to random sampling error. Such a distribution, then, would support the null hypothesis that neither Ellis's nor Wolpe's assertion has empirical support from the data.

Since Ellis's position postulates that there will be no subjects who are high in rationality and low in assertiveness, in

Figure 2 Some Possible Relationships Between Rationality and Assertiveness

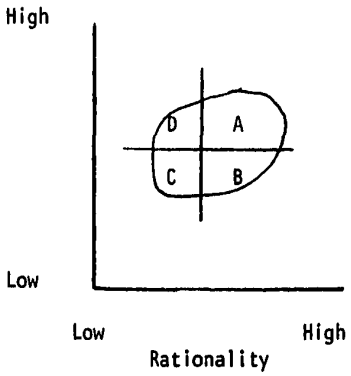


Figure 2a. Support for Null Hypothesis

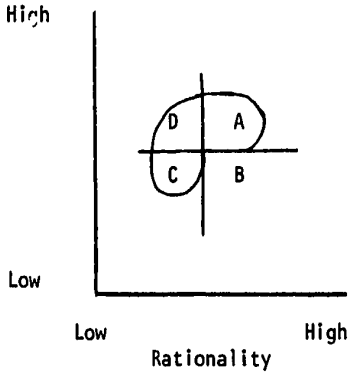


Figure 2b. Support for Ellis's Concept of Mental Health

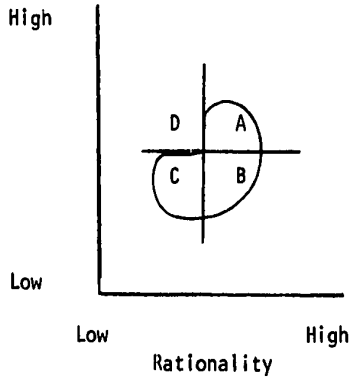


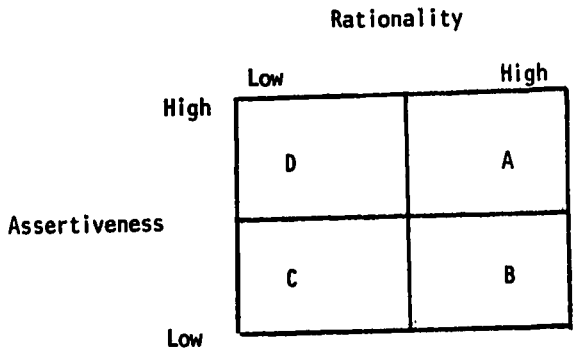
Figure 2c. Support for Wolpe's Concept of Mental Health

order to support the rational-emotive concept of mental health, a scatterplot similar to that shown in Figure 2b must be obtained. Hence, except for inclusions due to random errors, Quadrant B should be empty.

Conversely, Wolpe's claim that there will be no subjects who are high in assertiveness and low in rationality would manifest itself in a distribution such as that shown in Figure 2c. This means that Quadrant D would be empty except for random errors.

These alternatives can be statistically tested by applying a test of equality of proportions to cells B and D of Table I. If B and D are statistically equal, the null hypothesis of no difference between proportions (as illustrated by Figure 2a) is supported. On the other hand, if the null hypothesis is rejected, one of the two theoretical positions in question is supported. Which one is upheld depends on whether the significantly lower proportion occurs in Cell B (Ellis) or Cell D (Wolpe) of Table I.

Table I 2 x 2 TABLE SHOWING POSSIBLE COMBINATIONS OF RATIONALITY AND ASSERTIVENESS



It is evident that the frequencies in any given quadrant of Figure 2a can be artificially varied by shifting the axes drawn through the ellipse. Hence, the cutting points for these axes are of crucial importance.

If a continuous scale (such as the rationality scale) is dichotomized into high and low, the usual cutting point is the median - that is, half of the subjects would be classified as high on the scale and half as low. The underlying assumption is, of course, that the median which is estimated from the sample in question represents the best available estimate of the median of the population from which the sample was drawn.

In the present study estimates of the "normal", or general population were available in the form of the medians obtained from the "normal" sample. Since these estimates were the best available for the purpose of establishing cutting points, they were used in testing Hypotheses Number 3 and 4. On the basis of this rationale, the following definitions are offered:

A "highly rational" person was defined as one whose A-I-I Inventory score fell below the median for the normal sample. Such a person, although not "highly rational" in any absolute sense, is relatively more rational than a person who obtained a score above the normal sample median. The median for the normal group was 157.50;

therefore, a rational individual was defined as any person who obtained an A-I-I inventory score lower than 157.50

Similarly, a "highly assertive" person was defined as anyone whose SA Scale score was below the normal sample median (31.75).

Using these cutting points, the number of subjects in Cells B and D (See Table I) and their corresponding proportions were established. A test of the difference between two independent proportions (Ferguson, 1966, pp. 176-178) was then applied.

Since the purpose of the present study was only to establish the significance of possible differences between the two samples, it was felt that the usual method (t-test) for analyzing such differences would be the most appropriate.

CHAPTER IV

RESULTS

The findings are presented categorized according to the research hypotheses outlined in Chapter II.

Hypothesis Number 1

The first hypothesis postulated a difference in A-I-I Inventory scores between the inpatient sample and the normal sample. Mean A-I-I Inventory score for the psychiatric inpatient sample was 185.37 compared to a mean score of 159.45 for the normal sample. (The means and variances of A-I-I Inventory scores for both samples, divided according to sex, are presented in Appendix D). A two-way analysis of variance showed the difference to be significant at the .000002 level as displayed in Table 2.

Table 2 also shows that analysis of variance of the sex variable indicated that females scored significantly higher (p=.002) on the A-I-I Inventory than did males. This finding is portrayed graphically by Figure 3.

Hypothesis Number 2

The hypothesis that the two samples would differ in terms of SA Scale scores was not supported by the two-way analysis of variance (p=.076) as shown in Table 3. Appendix D presents the means and variances of SA Scale scores for both samples separated by sex.

TABLE 2

SUMMARY OF ANALYSIS OF VARIANCE OF

A-I-I INVENTORY SCORES FOR SAMPLE AND SEX

Source	SS	DF	MS	F	P
Sample	19,845	1	19,845	41.348	.000002
Sex	4,930	1	4,930.0	10.272	.002
Interaction	280	1	280.00	.583	.446
Error	70,553	147	479.95		

TABLE 3

SUMMARY OF ANALYSIS OF VARIANCE OF

SA SCALE SCORES FOR SAMPLE AND SEX.

Source	SS	DF	MS	F	P
Sample	17.625	1	17.625	0.177	.675
Sex	317.687	1	317.687	3.188	.076
Interaction	166.187	1	166.187	1.667	.199
Error	14,650.9	147	99.666		

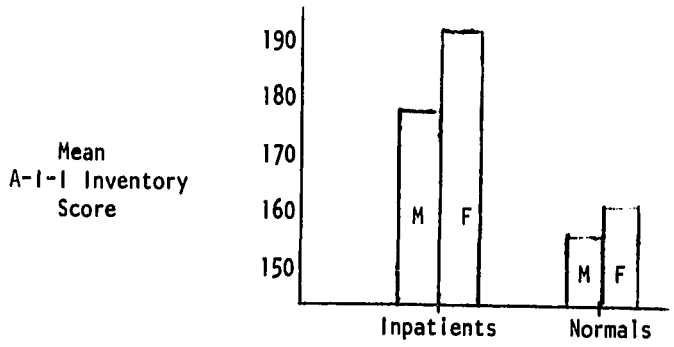


Figure 3. Graphic Representation of Sex Differences on A-I-I Inventory Scores.

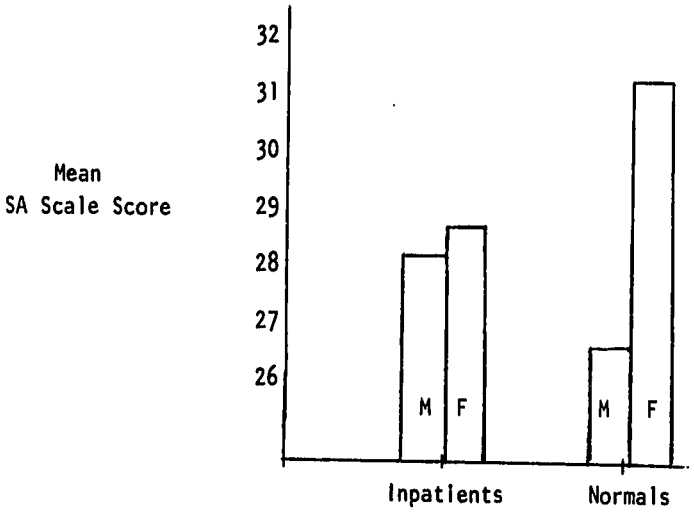


Figure 4. Graphic Representation of Sex Differences on SA Scale Scores.

There was no overall sex difference on SA Scale scores; males did not score differently from females. However, when subdivided by sample a sex difference did occur. An HSD test (Kirk, 1968, Pp. 88 - 90) applied to the results diagrammed in Figure 4 showed that normal females obtained a significantly higher ($p < .05$) SA Scale mean score than did normal males. The male-female difference for the inpatient sample was not significant.

Hypotheses Number 3 and 4

To determine whether there was a statistically significant difference between the frequencies of Cells B and D of Table 1, a test of the difference between two independent proportions was applied. Obtained cell frequencies, presented in Table 4, show the frequency of Cell B (15) to be lower than that in Cell D (54). The test for independent proportions resulted in a z-score of 5.39, indicating the difference to be significant at the .00001 level. Since Cell B was significantly lower than Cell D, evidence was offered in support of Albert Ellis's concept of mental health, and against Joseph Wolpe's concept of mental health. The results suggest that all rational persons are assertive but do not suggest that all assertive persons are rational.

The obtained frequencies displayed in Table 4 are separated by sample and presented in scattergram form in Appendix E. It may be noted that, as expected, the range of scores is greater for the normal sample than for the inpatient sample.

TABLE 4

OBTAINED FREQUENCIES OF ALL
POSSIBLE COMBINATIONS OF RATIONALITY
AND ASSERTIVENESS

Assertiveness \ Rationality	Low	High
High	54	34
Low	48	15

CHAPTER V

SUMMARY, DISCUSSION, AND IMPLICATIONS

Summary and Discussion

The present study explored the following questions as they relate to the systems of psychotherapy known as rational-emotive therapy (Albert Ellis) and systematic desensitization by reciprocal inhibition (Joseph Wolpe): (1) Are mentally healthy people more rational than emotionally disturbed people? (2) Are mentally healthy people more assertive than emotionally disturbed people? (3) Is Ellis's concept of mental health valid to the extent that all rational persons are assertive? (4) Is Wolpe's concept of mental health valid to the extent that all assertive persons are rational?

In order to explore these questions, the rational-emotive concept of mental health was outlined, and the reciprocal inhibition concept of mental health was deduced from the kinds of changes effected by the system. Rationality and assertiveness were measured by the Adult Irrational Ideas (A-I-I) Inventory and the Social Acquiescence (SA) Scale, respectively. Both instruments were administered to a sample of 65 psychiatric inpatients and a random sample of 86 non-institutionalized (normal) Edmontonians.

Results indicated a statistically significant difference between the mean A-I-I Inventory scores of the sample of psychiatric inpatients and the random sample of normal Edmontonians. The mean

score for the inpatient sample (185.37) and the normal sample (159.45) are similar to those obtained by Davies (1970) who administered the A-I-I Inventory to a sample of 82 mental hospital patients (mean score = 185.63) and a representative sample of Edmontonians (mean score = 157.66). Both studies reflect the usefulness of the A-I-I Inventory as a research instrument and lend empirical support for the theory of rational-emotive psychotherapy advanced by Albert Ellis (1962a).

The present study also showed a sex difference on A-I-I Inventory scores, females scoring significantly higher than males. Davies (1970) also found an overall sex difference in A-I-I Inventory scores; however, as Davies pointed out, the difference in his study was due to the large discrepancy between the sexes in the representative Edmontonian sample. Nevertheless, both studies suggest that males, especially "mentally healthy" ones, tend to be more rational, in Ellis's sense of the term, than their female counterparts. The difference may be part of other differences shown to exist between males and females. The causes of such variation are thought to be the collective contribution of constitutional factors and experiences such as the differing societal expectations relative to each sex.

In an attempt to test a concept of mental health derived from the behavioristic position of Joseph Wolpe, the Social Acquiescence

Scale was also administered to the inpatient and normal samples. Social Acquiescence Scale score was considered to be an inverse measure of assertiveness, the latter being the psychological construct central to the derived concept of mental health according to Wolpe's position. It was hypothesized that the psychiatric inpatient sample would score significantly higher on the SA Scale than would the normal sample; however, no difference was found. Three possible reasons for this finding are immediately apparent: (1) Perhaps the derived concept of mental health is invalid, that is, there may be a flaw in the logic. (2) Even if the reasoning is sound, the SA Scale may not measure the construct "assertiveness" as Wolpe means it. It could be that assertiveness is a factor composed of many traits, some of which are not tapped by the SA Scale. Essentially this is a question of instrument reliability and validity. Certainly, it appears that the SA Scale is not as sensitive a tool as is the A-I-I Inventory which may suggest the use of multiple measures to tap dimensions of assertiveness. (3) The "no difference" finding may be a Type II, or beta, error. It is presently impossible to determine which, if any of these possibilities account for the results; that can be accomplished only through further research. Another factor, which applies to both instruments, is grouping error. Whenever medians, or any other cutting points, are used to categorize data, information is inevitably lost.

There was no overall sex difference on SA Scale scores; however, normal females did score significantly higher than normal males. As with the sex difference on A-I-I Inventory scores, it seems plausible to explain this finding in terms of sex-role differentiation.

That the normal females were significantly more acquiescent is consistent with the literature on sex-role stereotypes which shows that, in general, women accept their role as the passive dependent, submissive members of humanity (e.g., Diamond, 1955; Rosenkrantz, et.al., 1968; Sherriffs and Jarrett,1953). Similarly, the smaller sex difference in SA Scale scores for the inpatient sample can be explained in terms of social-learning, or role-theory (Bandura and Walters, 1963; Sears, Maccoby, and Levin, 1957; Sears, Rau, and Alpert, 1965) in that there is a selection factor operating which determines what kinds of people are admitted to a psychiatric unit. For example, there is evidence to show that females who tend to be independent and assertive achieve more than their passive counterparts, but only at the price of high anxiety because this behavior in females is generally not accepted (Kagan and Moss, 1962; Komarovsky, 1946). Furthermore, there are double standards of mental health for men and women (Broverman, et. al., 1970); mentally healthy men are considered to be aggressive, independent, competitive, and direct, while mentally healthy women are conceived as being passive, dependent, noncompetitive, and sneaky. Consequently, at least part of the reason the inpatient females are admitted to a psychiatric unit in the first place may be due to the fact that they do not conform to society's expectations of them as women (Millet, 1969; Reeves, 1971; Weisstein, 1971). The same may be said of the male inpatients.

The last finding of this study was that there is more evidence

for the statement "All rational persons are assertive" than for the statement "All assertive persons are rational". Consequently, it may be concluded that rationality serves as a more central component of mental health than does assertiveness.

The present study, with its focus on the theoretical constructs "rationality" and "assertiveness" as they relate to mental health, suggests that the former construct is the more central component of psychological adjustment. However, it is important to recognize that although rationality is a paramount feature of rational-emotive therapy, it is not rationality in the seventeenth century sense of the term (Brinton, 1950). Ellis (1962a) is adamant on this point: "I am definitely not a rationalist, in any orthodox sense of this word" (p. 121). And later he states: "RT is not to be construed as a form of rationalism -- and certainly not of any orthodox or classical kind of philosophic rationalism". (p. 123). Seventeenth century rationalism addressed such questions as the nature of man, God, and the universe. Ellis feels these questions are unanswerable and does not consider them at all. His brand of "rationalism" is more empirical. For example, in response to a client's statement of worthlessness, Ellis will often respond "What evidence do you have of that?".

Nevertheless, RET does have strong philosophical underpinnings, being particularly aligned to the branch of Stoicism espoused

by the Greek slave Epictetus (ca. 60-100 A.D.) and the Roman emperor Marcus Aurelius (121-180 A.D.). Moreover, Ellis clearly acknowledges his debt to the Stoics when he says: "Many of the principles incorporated in the theory of rational-emotive psychotherapy are not new; some of them, in fact, were originally stated several thousand years ago, especially by the Greek and Roman Stoic philosophers (such as Epictetus and Marcus Aurelius) and by some of the ancient Taoist and Buddhist thinkers". (Ellis, 1962a, p. 35). To support his point, the quote that Ellis uses most frequently comes from *The Enchiridion* by Epictetus. It reads: "Men are disturbed not by the things which happen, but by the opinions about the things..." (Kirk, 1956, p. 172). However, many other sayings can be found to illustrate the influence of Stoic teachings on RT, as exemplified by the following two statements, attributed to Epictetus and Marcus Aurelius, respectively: "....it is not that which has happened that afflicts this man, for it does not afflict another, but it is the opinion about this thing which afflicts the man". (Kirk, 1956, p. 178). "Today I have got out of all trouble, or rather I have cast out all trouble, for it was not outside, but within and in my opinions". (Kirk, 1956, p. 114).

That Stoic philosophy should be introduced into contemporary psychotherapy is especially interesting in light of the position of historical determinism advanced by Bertrand Russell (1945). Russell comments: "The Stoic ethic suited the times of Epictetus and Marcus Aurelius, because its gospel was one of endurance rather than hope". (Russell, 1945, p. 262). "The times" mentioned refers to the period between the third century B.C. and the second century A.D., a

period of upheaval and crisis in the ancient western world. The "golden age" of Greece, destroyed with Pericles during the Peloponnesian War had been replaced by a penetrating skepticism in the transition period between the fall of Athens and the rise of the Roman empire. Such were the times which gave birth to the philosophy of Stoicism with its 'gospel of endurance", the doctrine that one can cultivate peace of mind and spiritual contentment even in the midst of societal chaos.

The seeming upheaval in North America today, reflected in such popular writings as those of Packard (1959, 1962, 1968), Reich, (1970), and Toffler (1970), warrants further speculation for the inplications of Russell's historical determinism. Is Ellis' theory a sign of our times? Is rational-emotive psychotherapy now gaining prominence because people need a tool for maintaining personal sanity in an insane world (Fromm, 1955; Szasz, 1961)?

Although Ellis largely agrees with the behavior modification theorists about the importance of conditioning during the formative years (Ellis, 1962a, Pp. 327-328; Ellis and Harper, 1968), the rational-emotive view of man differs from the anti-intellectual position taken by the behaviorists concerning the degree of influence the conditioning has during adult life. In brief, the former view holds that man has cortical control over most emotions and that thinking and emoting cannot be separated, while the latter position sees emotional behavior as a

manifestation of subcortical conditioning. In other words, the basic difference between these two paradigms can be described in terms of the mind-body riddle described by William James (1890). The rational-emotive position claims the "mind" is dominant in guiding behavior while the behaviorist orientation argues for the supremacy of the "body" as the genesis of action.

Implications for Future Research

As a result of the present study, a number of implications for further work become apparent.

The first area that could be studied has to do with the construct of assertiveness itself. Just what is assertiveness? Is it made up of a number of different traits? If so, what are they? Are some more central to mental health (i.e. act as more powerful reciprocal inhibitors of anxiety) than others?

A second area for exploration involves obtaining tools for measuring the assertive dimension. Are there instruments which tap the construct as Wolpe understands it? How might the SA Scale be improved in this regard? Are there physiological correlates of assertiveness? If so, what are they?

The third avenue for research relates mental health to psychotherapy. Given that a person grows psychologically as a consequence of therapy, he becomes more mentally healthy. But does he also become

more rational? More assertive?

This study looked at the concepts of mental health held by two prominent theorists and therapists, Albert Ellis and Joseph Wolpe. Future efforts might explore the mental health concepts advanced by other theorists and other schools of therapy, for example, the client-centered approach of Carl Rogers, the transactional analysis position of Eric Berne, or the gestalt therapy stance of Fritz Perls, to name but a few. Possibilities along this line are many.

Conclusion

In Chapter I, some rhetorical questions were asked regarding the nature of mental health. Included among these were: Is man Jack or Piggy? Dr. Jekyll or Mr. Hyde? How does the foregoing relate to mental health in general and to these questions in particular? Given that the findings of the present study are valid (i.e., that rationality is more central to mental health than is assertiveness) and that the logic is sound, the most plausible conclusion is this: "Man" is both Dr. Jekyll and Mr. Hyde, Jack and Piggy but "mentally healthy man" is closer to Dr. Jekyll than Mr. Hyde, and further from Jack than Piggy.

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APPENDICES

APPENDIX A

Adult Irrational Ideas Inventory

ADULT I-I INVENTORY

Read each of the following statements and decide how much you agree or disagree. Show your answer on the separate answer page. Use the code shown below.

		A	B	C	D	E
A.	I strongly agree	▬	=	=	=	=
B.	I agree	=	▬	=	=	=
C.	Undecided	=	=	▬	=	=
D.	I disagree	=	=	=	▬	=
E.	I strongly disagree	=	=	=	=	▬

NOTE

Answer all the questions. (Mark only one choice for each question).

There are no right or wrong answers.

There is no time limit.

If you wish to change an answer, be certain to erase the undesired answer completely.

Because the inventory is to be machine scored a soft pencil should be used.

1. Jeers humiliate me even when I know I am right.
2. I worry about situations where I am being tested.
3. The best way to teach a child right from wrong is to spank him when he is wrong.
4. I must learn to "keep my head" when things go wrong.
5. I think I am getting a fair deal in life.
6. I worry about eternity.
7. I am happiest when I am sitting around doing little or nothing.
8. I prefer to be independent of others in making decisions.
9. If a person is ill-tempered and moody, he will probably never change.
10. I get very upset when I hear of people (not close relatives or close friends) who are very ill.
11. Crime never pays.
12. My family and close friends do not take enough time to become acquainted with my problems.
13. People who do not achieve competency in at least one area are worthless.
14. We are justified in refusing to forgive our enemies.
15. I frequently feel unhappy with my appearance.
16. I feel that life has a great deal more happiness than trouble.
17. I worry over possible misfortunes.
18. I often spend more time in trying to think of ways of getting out of something than it would take me to do it.
19. I tend to look to others for the kind of behavior they approve as right and wrong.
20. Some people are dull and unimaginative because of defective training as a child.

21. Helping others is the very basis of life.

22. School promotions should be for intellectual merit alone.

23. It is very important to me when I do a good job to be praised.

24. I find it difficult to take criticism without feeling hurt.

25. It is terribly upsetting the way some students seem to be constantly protesting about one thing or another.

26. It is impossible at any given time to change one's emotions.

27. I tend to worry about possible accidents and disasters.

28. I need to learn how to keep from being too assertive or too bold.

29. To cooperate with others is better than doing what you feel should be done.

30. Sympathy is the most beautiful emotion of man.

31. People who criticize the government are either ignorant or foolish.

32. I wish more affection were shown by members of my family.

33. When a person is no longer interested in doing his best, he is done for.

34. I get very angry when I miss a bus which passes only a few feet away from me.

35. My place of employment and/or my neighborhood provide adequate opportunity for me to meet and make friends.

36. I can walk past a grave yard alone at night without feeling uneasy.

37. I avoid inviting others to my home because it is not as nice as theirs.

38. I prefer to have someone with me when I receive bad news.

39. It is necessary to be especially friendly to new co-workers and neighbors.

40. The good person is usually right.

41. Sometimes I feel that no one loves me.

42. I worry about little things.

43. Riches are a sure basis for happiness in the home.

44. I can face a difficult task without fear.

45. I usually try to avoid doing chores which I dislike doing.

46. I like to bear responsibilities alone.

47. Other peoples' problems frequently cause me great concern.

48. It is sinful to doubt the bible.

49. It makes me very uncomfortable to be different.

50. I get terribly upset and miserable when things are not the way I would like them to be.

51. I find my occupation and social life tends to make me unhappy.

52. I am afraid in the dark.

53. Many people that I know are so unkind or unfriendly that I avoid them.

54. It is better to take risks and to commit possible errors, than to seek unnecessary aid from others.

55. I get disturbed when neighbors are very harsh with their little children.

56. I find it very upsetting when important people are indifferent to me.

57. I have sometimes had a nickname which upset me.

58. I have sometimes crossed the street to avoid meeting some person.

59. When a friend ignores me I become extremely upset.

60. My feelings are easily hurt.

APPENDIX B

Social Acquiescence Scale

Name_____ Sex: M_____ F_____

Age _____ Occupation_____

FAMOUS SAYINGS

This is a test of your attitudes toward various famous sayings. Read each one carefully to find out its true meaning for you. If you agree more than you disagree with it, "X" the proper space below "Yes". If you disagree more than you agree with the saying, "X" the answer space below "No". If you are uncertain or not sure whether you agree or disagree, "X" the space below the "?". Make one mark for every saying.

EXAMPLE

If you agree with the saying, your answer should be marked this way:

Yes	?	No
X	___	___

If you disagree with the saying, your answer should be marked this way:

Yes	?	No
___	___	X

If you cannot make up your mind whether you agree or disagree with a statement, it will help if you ask yourself if you believe the statement is usually true or usually false. If it is usually true, mark "yes"; if it is usually false, mark "No".

Yes	?	No	
___	___	___	Success against odds is the greatest of American ideals.
___	___	___	Love is the greatest of Arts.
___	___	___	Love of the opposite sex makes the world go round.
___	___	___	They never fail who die in a great cause.
___	___	___	Destroyers of tyranny have contributed the most to mankind.
___	___	___	You only injure yourself when you take notice of despised critics.
___	___	___	The only known cure for fear is faith.
___	___	___	Never trust a flatterer.

Yes	?	No	
___	___	___	He who laughs last laughs longest.
___	___	___	No principle is more noble or holy than that of true obedience.
___	___	___	There is nothing which the body suffers which the soul may not profit by.
___	___	___	One false friend can do more harm than one hundred enemies.
___	___	___	No gift is more precious than good advice.
___	___	___	Obedience is the mother of success.
___	___	___	The victory always remains with those who admire rather than with those who criticize.
___	___	___	'Tis vain to quarrel with our destiny.
___	___	___	To be happy, always stay within the law.
___	___	___	You should give more than you want to give.
___	___	___	What we win through authority we lose; what we win through consideration we keep.
___	___	___	One should feel the failures of his friends as if the failures were his own.
___	___	___	Virtue is a struggle in which we overcome our weaknesses.
___	___	___	He conquers all who conquers himself.
___	___	___	It is difficult to do excellent work without great strain.
___	___	___	Seeing is believing.
___	___	___	Still water runs deep.
___	___	___	Make yourself honey and the flies will eat you.
___	___	___	Most big cows have little horns.
___	___	___	Every man is blind to his own defects.
___	___	___	Jaws are the only part of the body that like to work.
___	___	___	Those in high places are in greater danger than those in lowly ones.
___	___	___	Life is a struggle from beginning to end.
___	___	___	Wild colts make good horses.
___	___	___	Empty heads go with loud talk.
___	___	___	You can't teach an old dog new tricks.
___	___	___	Count your sheep and the wolf will eat them.
___	___	___	Sleep is loved by everyone.
___	___	___	The feeling of friendship is like that of being comfortably filled with roast beef.
___	___	___	Who does not love the opposite sex remains a fool the whole life long.
___	___	___	Better one safe way than a hundred of which you are not sure.
___	___	___	Amusement is the medicine for worry.
___	___	___	The restless sleeper blames the couch.

Yes	?	No	
___	___	___	There is no satisfaction without a companion to share it.
___	___	___	We like best what flies beyond our reach.
___	___	___	He that has many friends need never fear disaster.
___	___	___	Our chief want in life is somebody who will make us do what we can.
___	___	___	Pity is the touch of God in human hearts.
___	___	___	A sense of duty is the basis of character.
___	___	___	The greatest fortunes are for ~~these~~ who leave the common path and blaze a ~~new trail~~ for themselves.
___	___	___	Happiness must be won through great effort.
___	___	___	Next to love, sympathy is the most divine passion of the human heart.
___	___	___	Stay away from the proud man who is ashamed to weep.
___	___	___	Sweet is the sleep of men with virtue.
___	___	___	Giving is always better than receiving.
___	___	___	He that loses his conscience has nothing left that is worth keeping.
___	___	___	The grass is always greener in the other man's yard.
___	___	___	Only a statue's feelings are not easily hurt.

APPENDIX C

Covering Letter Sent to

Normal Sample

FACULTY OF EDUCATION
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY
TELEPHONE (403) 432-5245

THE UNIVERSITY OF ALBERTA
EDMONTON 7, CANADA

November 15, 1971

Dear

We would like you to participate in a study dealing with people's attitudes and beliefs. Naturally it would not be possible to approach all Edmontonians so we selected 300 people at random and you were one of these.

We would appreciate your taking the time to complete the enclosed questionnaires. Inventory I (A-I-I) deals with your ideas and feelings about various topics while Inventory II (Famous Sayings Test) deals with your opinions of certain famous sayings.

Since everybody's opinion is unique, it is very important that as many people participate as possible. The task will take only a few minutes of your time and you will probably find it quite enjoyable.

There are directions on each of the questionnaires. Please follow them carefully. It is not necessary to include your name if you would rather remain anonymous. However, please be sure to fill in the information on age, sex, and occupation.

When you have answered the questions, please mail all materials in the enclosed self-addressed, stamped envelope.

If you have any further questions, please call James Vargo at 432-5387.

Thank you very much for your co-operation.

Sincerely,

James Vargo
Research Co-ordinator

JV:pu
Encl.

APPENDIX D

Means and Variances of A-I-I Inventory Scores and SA Scale Scores

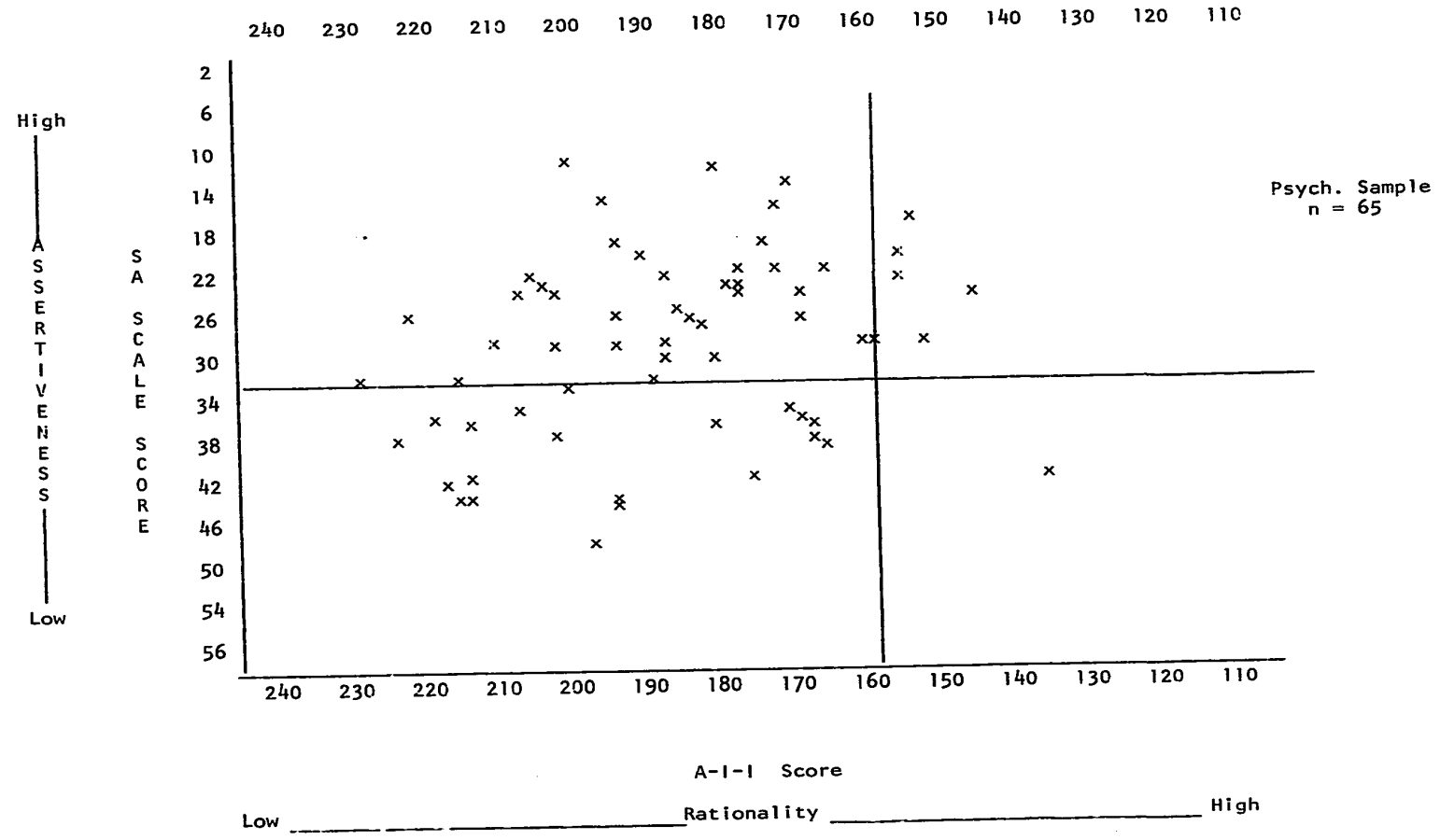
MEANS AND VARIANCES OF A-I-I INVENTORY SCORES AND SA SCALE SCORES FOR BOTH SEXES OF BOTH SAMPLES

Sample	A-I-I INVENTORY		SA SCALE	
	Mean	Variance	Mean	Variance
Inpatient:				
(a) females	190.37	447.07	28.83	71.49
(b) males	175.59	279.21	28.04	78.43
(c) total	185.37	428.08	28.60	71.74
Normal:				
(a) females	163.57	475.04	31.79	89.82
(b) males	154.49	633.16	26.56	154.46
(c) total	159.45	554.13	29.42	122.98

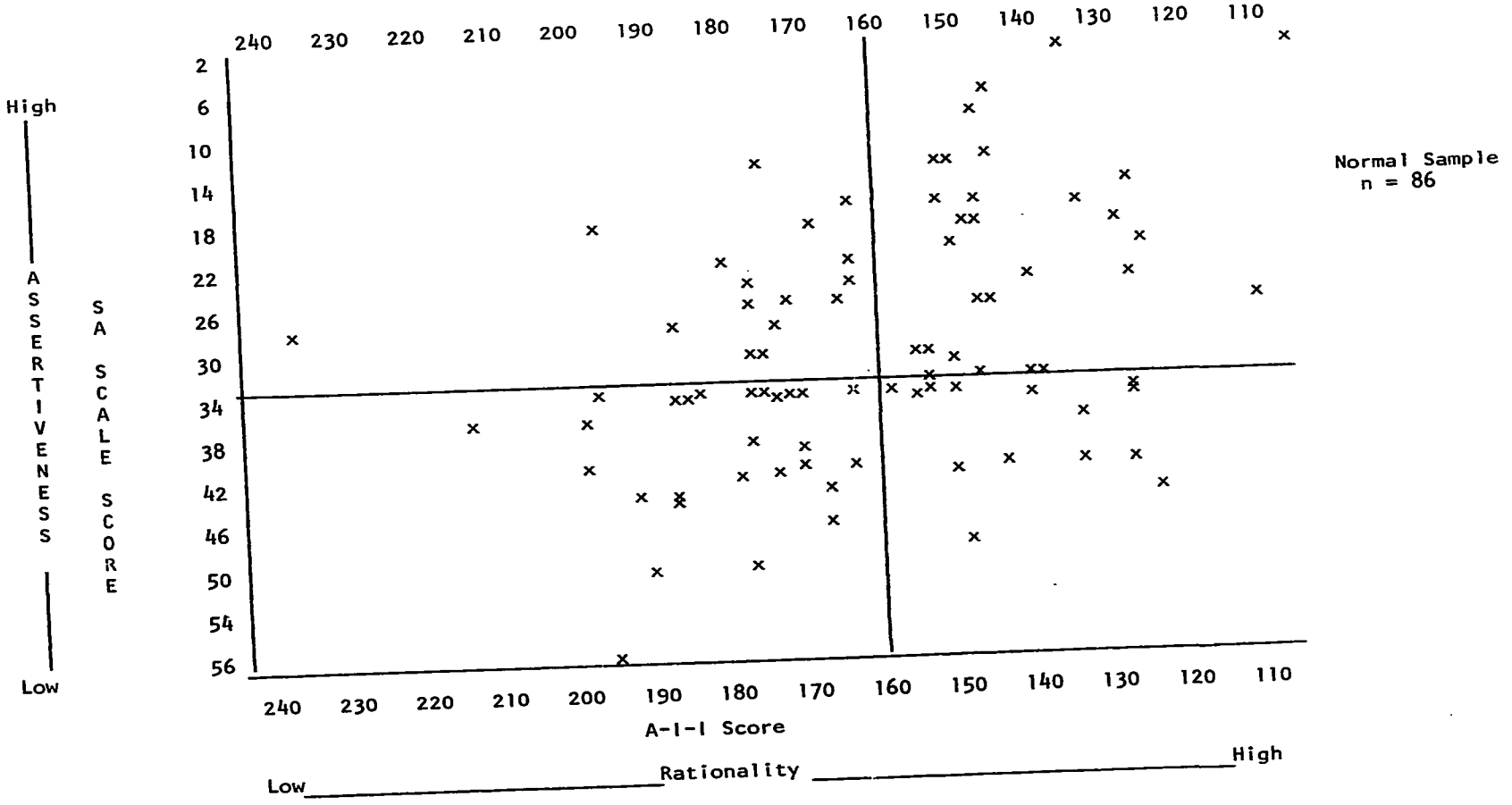
APPENDIX E

Scattergrams Showing Distributions

for Inpatient Sample and Normal Sample



Scattergram Showing Distribution for Inpatient Sample



Scattergram Showing Distribution for Normal Sample

APPENDIX F

A-I-I Inventory Scores and SA
Scale Scores for Inpatient Sample

A-I-I INVENTORY SCORES AND SA

SCALE SCORES FOR INPATIENT SAMPLE

Subject	A-I-I Inventory	SA Scale	Subject	A-I-I Inventory	SA Scale
1	200	11	21	211	24
2	180	13	22	148	24
3	169	14	23	183	24
4	195	15	24	169	24
5	170	17	25	205	24
6	154	18	26	182	25
7	193	19	27	221	25
8	172	19	28	191	26
9	188	20	29	169	26
10	156	20	30	179	26
11	176	21	31	178	27
12	171	21	32	211	28
13	164	21	33	153	28
14	204	22	34	186	28
15	157	22	35	158	28
16	187	22	36	160	28
17	201	23	37	192	29
18	177	23	38	203	29
19	176	23	39	159	30
20	174	24	40	183	30

Subject	A-I-I Inventory	SA Scale	Subject	A-I-I Inventory	SA Scale
41	180	30	54	169	38
42	226	31	55	225	38
43	185	31	56	167	39
44	214	31	57	212	41
45	201	32	58	177	41
46	172	33	59	138	41
47	207	34	60	215	42
48	221	35	61	213	43
49	171	35	62	212	43
50	212	36	63	190	44
51	168	36	64	190	44
52	180	36	65	197	47
53	202	37			

APPENDIX G

A-I-I Inventory Scores and SA
Scale Scores for Normal Sample.

A-I-I INVENTORY SCORES AND SA

SCALE SCORES FOR NORMAL SAMPLE

Subject	A-I-I Inventory	SA Scale	Subject	A-I-I Inventory	SA Scale
1	106	0	21	179	22
2	135	1	22	158	22
3	142	7	23	127	23
4	145	8	24	158	23
5	142	12	25	138	23
6	148	13	26	174	24
7	151	13	27	161	25
8	172	13	28	169	25
9	127	15	29	175	26
10	133	16	30	110	26
11	151	17	31	142	26
12	146	17	32	144	26
13	157	17	33	183	27
14	129	18	34	171	27
15	167	18	35	236	28
16	146	18	36	174	29
17	145	18	37	149	29
18	196	18	38	175	29
19	123	20	39	150	29
20	148	21	40	146	30

Subject	A-I-I Inventory	SA Scale	Subject	A-I-I Inventory	SA Scale
41	144	31	64	198	36
42	138	31	65	181	37
43	136	31	66	171	38
44	150	31	67	134	39
45	170	32	68	149	39
46	193	32	69	177	39
47	172	32	70	167	39
48	181	32	71	197	39
49	156	32	72	129	39
50	128	32	73	146	41
51	146	32	74	171	41
52	161	32	75	167	41
53	167	33	76	181	42
54	154	33	77	190	43
55	188	33	78	126	43
56	174	33	79	164	44
57	129	33	80	181	45
58	176	33	81	181	45
59	188	34	82	165	46
60	154	34	83	148	47
61	141	34	84	177	50
62	134	35	85	190	51
63	215	36	86	200	56