DIFFERENCES IN SELF-CONCEPT IDENTIFICATION BY A SCHIZOPHRENIC AND NON-SCHIZOPHRENIC PRISON POPULATION

Thesis for the Degree of Ph. D.

MICHIGAN STATE UNIVERSITY

BARNEY GREENSPAN

1970

This is to certify that the

thesis entitled

DIFFERENCES IN SELF-CONCEPT IDENTIFICATION BY A SCHIZOPHRENIC AND NON-SCHIZOPHRENIC PRISON POPULATION

presented by

Barney Greenspan

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Counseling, Personnel Services, and Educational Psychology

John E Jordan
Major professor

Date July 31, 1970

ABSTRACT

DIFFERENCES IN SELF-CONCEPT IDENTIFICATION
BY A SCHIZOPHRENIC AND NON-SCHIZOPHRENIC
PRISON POPULATION

By

Barney Greenspan

Schizophrenics (Scs) have problems, under conditions of ambiguity, in distinguishing between themselves and others. The purpose of this study was to investigate the Sc's use of self-concept information. Since Scs are less aware of their ego boundaries and are more prone toward feelings of dispersion or diffusion, it was hypothesized that they will be less able to differentiate stereotyped self-concept descriptions than non-Scs.

The Counseling Form of the Tennessee Self-Concept Scale (TSCS) was administered to 30 male inmates who had no diagnosed psychopathology (NSc), 30 Paranoid Schizophrenics (PaSc), and 30 Chronic Undifferentiated Schizophrenics (Und). Each S in each diagnostic category was randomly assigned to an experimental or control group. There was an equal number (15) of NSc, PaSc, and Und Ss in the experimental and control groups.

Two weeks after initial testing, the experimental Ss were called individually into a testing room and each S read his own

profile description. The 45 control Ss did not receive any feedback. One week later, all Ss were presented with three stereotyped profile descriptions. These include a NSc, PaSc, and an Und profile. Each S was instructed to read all three profile descriptions and to choose which profile best describes him.

The analysis of variance indicates that diagnostic category is related to performance on the profile choice task. The NSc group was most successful (in choosing the description which best describes the diagnostic category to which they belong), followed by the PaSc and Und groups, respectively. Across all diagnostic categories, the feedback condition effected a significantly greater amount of success on the task than the no-feedback condition. There was some evidence supporting the contention that those Sc Ss off medication were more successful compared to those on medication. The effects of medication did not interact with either the diagnostic category or feedback dimensions, nor did the diagnostic category factor interact with the feedback condition. Finally, no noticeable differences, with respect to any finding, were evident between prison and hospital Ss.

The Sc has difficulty integrating information dealing with his self-concept. While the Sc process in the Und does not compensate for the loss of ego boundaries, the adjustment of the PaSc may then be regarded as a positive attempt to offset the disintegration characteristic of the Und.

DIFFERENCES IN SELF-CONCEPT IDENTIFICATION BY A SCHIZOPHRENIC AND NON-SCHIZOPHRENIC PRISON POPULATION

By

Barney Greenspan

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Counseling, Personnel Services,
and Educational Psychology

College of Education

1970

ACKNOWLEDGMENTS

For their unflagging encouragement and indispensable help, I am indebted to my dissertation committee. Along with Dr. John E. Jordan, who served as chairman, sincerest appreciation goes to Dr. James Engelkes, Dr. Fred J. Pesetsky, and Dr. Albert I. Rabin for their suggestions, patience, and enthusiasm in the undertaking of this thesis.

I acknowledge my friends and colleagues, particularly Michael Figler, who have assisted in the completion of this dissertation through discussion, argument, and sometimes challenge.

I am most happy to express my thanks to Oliver Terpening, who gave excellent editorial assistance and was a valuable source of ideas, care, and patience.

Obviously, this study would have been impossible without the cooperation and candor of the many prisoners who volunteered to be research subjects; I have tried to show my appreciation by respecting their confidence.

To my readers, I am grateful to those who make the effort to understand; I hope that in time I shall become more deeply indebted to a few, who will contribute to the further clarification of the ideas presented.

My wife's sensitivity, inspiration, and wise counsel have so influenced all that I do, that I dedicate this, the completed dissertation, to Laurie.

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	ii
LIST OF TABLES	v
LIST OF APPENDICES	vi
Chapter	
I. INTRODUCTION	1
Introductory Statement	1
Statement of the Problem	3
Hypotheses	4
II. REVIEW OF THE LITERATURE	6
Self-Concept: Theory	6
Self-Concept: Research	9
Schizophrenia: Self-Concept Theory	10
Schizophrenia: Self-Concept Research	17
Schizophrenia: Paranoid Type--Theory	21
Schizophrenia: Paranoid Type--Research	23
Schizophrenia: Chronic Undifferentiated Type	24
Criminal Activity	24
Research Demonstrating the Relationship Between Self-Concept and Behavior Using the Tennessee Self-Concept Scale	26
III. METHODOLOGY	29
Subjects	29
Measurement Device	30
Procedures	34
Hypotheses	35
Analysis of the Data	37
IV. RESULTS	39
Summary	52

CHAPTER Page

V. DISCUSSION. 53

Self-Concept: Theory 53
Self-Concept: Research. 55
Retention and Abstraction 57
Medication 58
Limitations of the Present Study. 59
Implications for Future Research. 61
Conclusions. 61

LIST OF REFERENCES. 64

APPENDICES 72

LIST OF TABLES

Table		Page
1.	Summary of Analysis of Variance of Stereotyped Profile Choices for Non-Schizophrenic, Paranoid Schizophrenic, and Chronic Undifferentiated Schizophrenic Subjects (Diagnostic Category) Under Feedback or No Feedback Conditions.	40
2.	Frequencies and Percentages of Stereotyped Profile Choices for Non-Schizophrenic, Paranoid Schizophrenic, and Chronic Undifferentiated Schizophrenic Subjects Under Feedback or No Feedback Conditions.	41
3.	Proportion and Percentages of Correct Profile Choices for Non-Schizophrenic, Paranoid Schizophrenic, and Chronic Undifferentiated Schizophrenic Subjects.	43
4.	Summary of Analysis of Variance of Stereotyped Profile Choices for Paranoid Schizophrenic and Chronic Undifferentiated Schizophrenic Subjects Under Medication or No Medication Conditions.	46
5.	Proportion of Correct Profile Choices for Medicated and Non-Medicated Paranoid Schizophrenic and Chronic Undifferentiated Schizophrenic Subjects.	47
6.	Proportion and Percentages of Correct Profile Choices for Medicated and Non-Medicated Paranoid Schizophrenic and Chronic Undifferentiated Schizophrenic Subjects Under Feedback or No Feedback Conditions	48
7.	Summary of Analysis of Variance of Stereotyped Profile Choices for Schizophrenic Subjects Under Feedback or No Feedback, and Medication or No Medication, Conditions.	50
8.	Proportion of Correct Profile Choices for Medicated and Non-Medicated Schizophrenic Subjects Under Feedback or No Feedback Conditions.	51

LIST OF APPENDICES

Appendix		Page
A.	The Counseling Form of the Tennessee Self-Concept Scale (How the Individual Perceives Himself).	73
B_1.	A Self-Concept Profile, Derived from the Tennessee Self-Concept Scale, Which Is Characteristic of a Subject with No Diagnosed Psychopathology	75
B_2.	A Self-Concept Profile, Derived from the Tennessee Self-Concept Scale, Which Is Characteristic of a Paranoid Schizophrenic Subject.	76
B_3.	A Self-Concept Profile, Derived from the Tennessee Self-Concept Scale, Which Is Characteristic of a Chronic Undifferentiated Schizophrenic Subject.	77
C_1.	A Stereotyped Profile Description of a Person with No Diagnosed Psychopathology . .	78
C_2.	A Stereotyped Profile Description of a Paranoid Schizophrenic	79
C_3.	A Stereotyped Profile Description of a Chronic Undifferentiated Schizophrenic . . .	80
D.	Pilot Study.	81
E.	Summary of Analysis of Variance of the Total Positive Score on the Tennessee Self-Concept Scale for Non-Schizophrenic, Paranoid Schizophrenic, and Chronic Undifferentiated Schizophrenic Subjects	82

CHAPTER I

INTRODUCTION

Introductory Statement

One way in which an individual is given unity is through the self-concept. The young child has no initial way of telling the difference between himself and the world around him. A construct of self is formulated from the data coming to the individual. The environment teaches the child that he is a unit having a certain pattern of attributes. He begins to see the changing world from the standpoint of a constant self.

A "psychological homeostasis" adjusts behavior and interprets the world in ways that preserve the self-concept. This concept of self, then, serves as a unifying and organizing factor in the behavior of the individual. It keeps molecular bits of behavior in line with perceived general attributes and it preserves itself, sometimes by guiding behavior, sometimes through distorting perceptions of events.

Ways of behaving that are consistent with the structure of the self are adopted and inconsistent behaviors are avoided. The individual is well-adjusted when almost all experiences can be assimilated into a consistent relationship with the self. There is psychological disturbance when the individual denies significant experiences that cannot be tolerated by the

structure of the self. The most shattered and disintegrated personality is schizophrenic (Sc).

In Sc, thoughts and ideas become distorted, irrational, and bizarre. They are expressed in confused, strange language, or in nonsensical sounds; or they are not expressed at all and there is only silence. Relationships with other people are minimized as the person withdraws. Emotions become distorted, exaggerated, confused, and inappropriate. Behavior becomes unconnected, unrelated, disharmonious,and irrational.

It is not certain whether Sc is one disorder with different types characterized by distinctive symptomatology, or whether there are distinct kinds of disorders grouped together only because they all have in common the general characteristic of the disintegration of the personality.

The prevailing practice is to refer to Sc as a single disorder, and to differentiate types according to the dominant symptom pattern. This is the method followed in the present study.

The Sc is characterized by withdrawal from reality, indifference concerning everyday problems, and a tendency to insulate himself in a world of fantasy. The Sc may often say things which are inconsistent with the emotions expressed, react with indifference to occurrences which usually invoke sorrow in other people, coin new words or engage in inappropriate laughter, withdraw almost completely from group life, complain of being influenced by mysterious powers, or give vent to explosive expressions of resentment and hate.

By withdrawing and becoming seclusive the Sc avoids coming into contact with ego-threatening situations. By becoming apathetic he protects himself against his own fear of failure. By showing indifference to a situation, he precludes the possibility of having to participate in solving the problems which it presents. His delusional ideas insulate him against strong feelings of insecurity, inadequacy, or guilt. His grandiose fantasy compensates for his inadequate and unworthy feelings; his persecutory ideas place the blame of his difficulties and failures on others.

The situations and factors that precipitate the Sc reaction are essentially the same that bring on other ego-defensive patterns. They are basically those conditions that are regarded as a serious threat to the individual's feelings of security and adequacy. Sc stems from the individual's inability, whether real or fancied, to satisfy his ego needs and to adjust satisfactorily to the group(s) in which he finds himself. Arieti (1955, p. 43) summed it up in this way: "Sc is a specific reaction to an extremely severe state of anxiety, originated in childhood, reactivated in later life. This specific reaction occurs when no other solution, no other possibility of adjustment, is any longer available to the individual."

Statement of the Problem

Ego boundary and ego feeling provide the sense of self as separate from other people and the world. This separateness is needed for action to proceed effectively.

Ego feeling (Federn, 1952) is related conceptually to ego identity (Erikson, 1959). It is a consistent, conscious, affective awareness of self, both as a psychic and physical entity, and persistent over time. The ego boundary supplies a coherent, stable feeling of selfness and sameness and provides for ego identity.

Freeman, Cameron, and McGhie (1958) concluded that schizophrenics (Scs) have problems in differentiating their ego boundary and have difficulty, under conditions of ambiguity, in distinguishing between themselves and others.

In order to help Scs obtain the most benefit from re(habilitation), it is necessary for the therapist to have a clear understanding of how the Sc views himself, and for the Sc to be aware of his own concept of self. To improve treatment methods, however, it is also necessary for therapist and patient to be aware of how the Sc uses information about himself. The purpose of this study is to investigate the Sc's use of self-concept information.

Since Scs are less aware of their ego boundaries and are more prone toward feelings of dispersion or diffusion, it is hypothesized that they will be less able to differentiate self-concept descriptions than non-Scs.

Hypotheses

The present study investigated the following hypotheses:

H_1: Subjects with no diagnosed psychopathology (NSc) will be more successful, in choosing the stereotyped profile description which best describes

the diagnostic category to which they belong, than the Paranoid Schizophrenic (PaSc) group, who in turn will be more successful than the Chronic Undifferentiated Schizophrenic (Und) group.

H_2: Subjects who receive self-concept feedback (regardless of their diagnostic category) will be more successful as a group, in choosing the appropriate profile, than will the subjects who receive no feedback.

H_3: Subjects who receive self-concept feedback will be more successful, in choosing the appropriate profile, than will the subjects in each of the corresponding diagnostic categories who receive no feedback.

H_4: Schizophrenic subjects who are not on medication will be more successful in choosing the appropriate profile than those on medication. The relationship between medication and no medication conditions will be similar for PaSc and Und subjects. Also, this relationship will be similar for subjects in the feedback condition and the no feedback condition.

CHAPTER II

REVIEW OF THE LITERATURE

Self-Concept: Theory

The self-concept influences the formation and change of interpersonal response traits in the individual, which often reflect self-cognition (Krech, Krutchfield, & Ballachey, 1962). Self-concept is " . . . those parts of the phenomenal field which the individual has differentiated as definite and fairly stable characteristics of himself (Snygg & Combs, 1948)." Included in the self-concept are the individual's body image, his introjected attitudes, values and other attributes which are felt to be unique and differentiate him from his environment. Self-esteem or self-evaluations include the positive and negative feelings which are ascribed by the individual (Fitts, 1965).

Rogers (1954) spoke of psychological tension when the person denies to awareness significant sensory and visceral experiences, which consequently are not organized in the self-concept. Roger's "healthy individual's self-concept" is approximated in Horney's "real self" and Fromm's "true self" when the concept of self is such that all the sensory and visceral experiences of the person are, or may be, assimilated on a symbolic level into a consistent relationship with the concept of the self.

To give a person a sense of identity it is necessary that an image of self is created which embodies the more time enduring aspects of the personality. Resolving past experiences which were disjointed, isolated, or repressed and connecting them with present-day events gives the person a sense of continuity. Thus he learns to be proud of things he has done or felt and acquires the habit of discriminating between that which is characteristically his, that which is generally human, and that which is typically somebody else's. The end result is a heightened awareness of self and a sense of confidence and well-being (Ruesch, 1961).

Identity suggests much of what has been called the self by a variety of persons, be it in the form of a self-concept (Mead, 1934), a self-system (Sullivan, 1953), or in that of fluctuating self-experience described by Schilder (1951) and Federn (1952). Federn called "Erlebnis" the concept of the ego as subjective experience or self-awareness.

In discussing libidinal cathexis of the ego in narcissism, Hartmann (1950) said it is a self which is being cathected. He advocated the term "self-representation". This self-representation was anticipated by Freud in his references to the ego's "attitudes toward the self".

"Ego identity" (Erikson, 1968) is the result of the synthesizing function of a child's social reality during successive childhood crises. Identity helps the adolescent contain his postpubertal id and balance his superego, as well as appease

his often lofty ego ideal, all in the light of a foreseeable future structured by an ideological world image. Ego identity is the ego's synthesizing power, and self-identity is the integration of the individual's self and role images. Erikson's (1959) ego identity connotes both a persistent sameness within oneself and a persistent sharing of some kind of essential character with others.

Federn's (1952) "ego feeling" is a subjective, experienced state mediating between the perceived self and the environment. It is the "self-experience" which stands in relation to the continuity of the person in respect to time, space, and causality. Federn (1952) felt that a good sense of reality (a clear differentiation of the self from the rest of the world) is largely predicated upon good "ego boundaries". When ego (or self) boundaries are disturbed, perceptual distortion ensues and the sense of reality is correspondingly disturbed. Under normal circumstances there is no conscious awareness of the self, just as there is no awareness of all other well-functioning parts of the individual. A good sense of reality is predicated upon the lack of intrusion of the self as subject or object. Whenever the immediacy of the relationship of the self to reality is interrupted there is a disturbance in the sense of reality.

The concept of ego has the following cores of common meaning as described by Federn and Erikson. The ego is a combination of emergent abilities. Its development occurs

through a series of crises which occur whenever the emergent skills and developing powers of a person need to be controlled or elaborated in order for him to be considered a normal member of the culture. When these crises occur, the equilibrium of the personality is upset. A child's developing ego may be temporarily less differentiated and less well organized, and his relationship to his environment less concordant, until the crisis is resolved. This resolution leaves the ego enhanced; growth has occurred. At the same time, a child acquires increasingly diverse types of roles. Each time he successfully resolves a crises or learns to assume a new role, his ego is strengthened because he has internalized a new set of interrelationships, increased his power of discrimination, and has added to his knowledge of the world and of himself.

The mechanism through which the world becomes affectively comprehensible and, hence, through which learning is possible, may be "ego feeling at the boundary". This feeling, or cathexis, seems to act at the boundary between the individual and the environment as the filter through which the affective aspects of the world are sensed, sorted, classified, and ultimately known.

Self-Concept: Research

With any particular group there are probably certain kinds of descriptions which are more accurate than others, i.e., there are probably stereotyped self-concepts. Forer (1949) reported that students readily rated certain vague

generalized statements as highly characteristic of their personalities under the impression that they were true personality sketches. His study did not investigate the possibility that subjects might be able to distinguish "bona fide" descriptions from stereotyped descriptions.

Sundberg (1955) made blind interpretations of the MMPI profiles of 44 college students and paired them with fake personality descriptions. The students were unable to pick their own personality description except at the chance level. Friends of the subjects likewise failed to pick the "bona fide" description better than by chance. Analysis of the data and the personality descriptions suggested that acceptable college personality interpretations are short and include vague, double-headed, modal, and favorable statements.

The MMPI's of those who chose their own description and those who rejected it showed no differences except on the Hypomania (Ma) scale. On Ma, the rejectors had an average t score of 64.8 compared with the acceptor mean of 56.4. Sundberg suggested that the more active, optimistic students identified more readily with the college stereotype, at least as it was represented in the fake descriptions.

Schizophrenia: Self-Concept Theory

The term "schizophrenia" (Sc) has its origin in the work of the Swiss psychiatrist, Eugen Bleuler. Before Bleuler's introduction of this term, the common designation for these disorders was Kraepelin's "dementia praecox", meaning early

mental deterioration (implying a disease developing in young people, characterized by a process of intellectual and psychological deterioration). Bleuler attempted to define these disorders not in terms of their course but in terms of their primary and secondary symptomatology. The primary defects in Sc are disorders of thinking, feeling, and the relationship to external reality. The secondary results of these defects are delusions, hallucinations, and bizarre associations (Bellak, 1958).

A very low self-esteem is one of the characteristics of a Sc and is basic to his pathological communication. It is as though the Sc needs to communicate in ways which involve the use of body posturings and other forms of non-verbal caricature because verbal-symbolic ways are not as yet available to him (Searles, 1965). Perhaps the Sc has a greater need to communicate than he has a need for self-esteem.

Psychiatric literature does not offer a systematic way of describing the interpersonal behavior of the Sc so as to differentiate that behavior from the normal person (Haley, 1963). Whereas normal people work toward a mutual definition of a relationship and maneuver each other toward that end, the Sc seems rather to desperately avoid that goal and work toward the avoidance of any definition of his relationship with another person.

The Sc is a person who has suffered severe assaults on his sense of security prior to the development of skill in the

use of language, and prior to the formation of a concept of his self, as a personality distinguishable from others (Will, 1961).

The Sc is distrustful and resentful of other people. During his early fight for emotional survival he begins to develop great interpersonal sensitivity. His partial emotional regression and his withdrawal from the outside world is motivated by his fear of repetitional rejection, by his distrust of others, by his own retaliative hostility (which he abhors) and by the deep anxiety promoted by this hatred (Fromm-Reichmann, 1948).

Wynne and Singer (1963) stated that an individual's identity is the link between the person and his culture. Sc is seen as the result of a failure to develop a clear and stable ego identity.

The classic description of Sc as a gross diagnostic entity, and the specific reaction types which compose it, was made by Bleuler (1950). He distinguished between the "fundamental" symptoms and the "accessory" symptoms. For Bleuler the fundamental symptoms seemed to reflect most directly the process of withdrawal. These symptoms include the abandonment of the logic requisite to clear interpersonal communication; an affective disturbance, manifested in the extreme case by apathy; or a complete lack of feeling rather than a dominant euphoria; depression, or even agitation, which has been seen in other psychoses; and an immobilizing ambivalence.

It is commonly found that feeling is withdrawn in connection with external realities. As a result, the Sc's interests narrow and a growing indifference is found which may extend to personal comforts and needs. Surface displays of feeling are shallow and unrelated to either external circumstances or to conscious mental content; the person is no longer responsive to the reality outside him and is instead reacting to the unconscious drives within himself.

The lack of concern with his surroundings often causes the Sc to feel very much outside of life, a spectator rather than a participant, and he begins to lose identity as a person. This feeling of depersonalization may be rationalized on grounds that his mind, his body or its various parts, no longer belong to him. He may develop the idea that he is dead altogether or that the world has been destroyed.

Bleuler (1950) emphasized that, in contrast to the organic patient, sensation, memory, and orientation are relatively undisturbed in the Sc. He is capable of responding normally to external stimuli even though he may complain that everything seems to be different, a strangeness that is probably attributable to his altered emotional state. Because Scs are more responsive to autistic, internal structures than to external realities, they may not respond appropriately, although they have not lost the capacity. Bleuler (1950) felt that memory functions are intact and in paranoids may be particularly keen. What may appear to be a defect in memory is

usually an unconscious reluctance to reproduce a painful past.

Federn (1952) stated that "schizophrenia is a state of ego weakness in which there is a failure to cathect the ego and its boundaries adequately." Federn felt impairment of ego boundaries is not only a symptom of Sc, but the basic process of the distrubance during its entire course.

Cameron (1963) viewed Sc as resulting from "inadequate ego functioning". He stated that the weak, fragile ego is unsuccessful in its attempt to deny and project the intruding primary process material onto the outside world. What follows are hallucinations, delusional systems, and confusion as to what is actually internal and external.

Sullivan (1953) viewed the Sc state as one in which there is a malfunctioning self-system. He felt the self-system developed initially as a secondary dynamism to avoid and to minimize incidents of anxiety. When the self-system is imparied there is a breakthrough of anxiety similar to a primitive panic state. Consciousness becomes flooded by "chaotic thoughts" (similar to Freud's primary process material) and results in autistic, prototaxic thinking.

Wolman (1965) felt that Scs have a negative, devalued self-concept and lowered self-esteem. He stated (1965, p. 995) that:

> Schizophrenics do not care much for themselves but worry about what other people think of them. In success, they worry; in failure, they blame themselves. They both perceive self-hostility and project it to others.

> Self-esteem appears to depend upon whether their love is accepted. They may think of themselves as stupid or bad and will lie to cover this apparent fault. They also usually feel that others are superior, smarter, stronger and better, whereas they are generally inferior.

Depersonalization is extensive and dramatic in Sc. Ackner (1954) delineated four phenomena which occur most commonly in depersonalized persons: (a) Feelings of unreality--in reference to the self, body, external world, or passage of time; (b) these feelings are unpleasant--it is felt that changes are occurring over which the individual has no control. These people become very distressed and fear dying and insanity; (c) the feelings are non-delusional--the person is aware of the "as if" quality of his feeling of strangeness and unreality and he realizes the perceived changes have not actually occurred. Reality sense is impaired but reality testing remains intact; (d) loss of affective response--the person complains of having no feeling, emotion, or pleasure.

Cattell (1966) felt that in the overt Sc the depersonalization episodes merge with the delusions to the extent where the person is unable to determine reality from fantasy, and may become convinced that he is no longer alive.

Jacobson (1954) stated that in Sc the representation of the self is tenuous and unstable. In severe forms of Sc there is a severe disorganization of self-representation with the consequent destruction of the image of the self. Restitution may take the form of a delusion in which the Sc has become another person.

Szalita-Pemow (1952) considered the Sc process an attempt to maintain a displaced equilibrium as a defense against acute disintegration and panic. In Sc the self is composed of "small separate islands" disrupting inner communications due to discontinuity of experience, originally caused by maternal anxiety. In Acute Schizophrenic Episodes, the person's ego is so engaged in dealing with his internal world in the face of strong disruptive processes, that he can only tenuously deal with external reality. Therefore, his communications are rich in imagery but poor in communicative content.

Rabin and King (1958) stated that impairment in Sc thinking is a selective process, being determined by whether or not the task pertains to interpersonal relations. "Generally, with respect to empathic ability, schizophrenics do not do as well as normals, though individual differences do exist. Schizophrenics also tend to over-value themselves unconsciously and similarly dissociate themselves from mental illness (Rabin & King, 1958, p. 255)." The Sc is extremely sensitive to failure and has a strong need to maintain and bolster his self-esteem. "The high level of aspiration in the face of actual failure is a further indication of the need for restitution at the expense of reality (Rabin & King, 1958, p. 256)." Rabin and Winder (1969) stated that:

> . . . the phenomenology regarding the self in schizophrenia is not simple nor does it permit clear differentiation from normals and other groups. The evidence of bimodal trends in the self versus

ideal-self discrepancy demand utmost caution in drawing conclusions based upon group comparisons. The situation with respect to other personality variables is not dissimilar.

Schizophrenia: Self-Concept Research

Self-esteem or ideal-self congruence measures do not distinguish Scs from normals. Guller (1966) investigated the stability of the self-concept in 84 non-chronic Scs (excluding Paranoids). Self-concept, health-concept, and food-preference questionnaires were administered to Scs and controls, who were equally divided into failure and non-failure groups. Test-retest method with failure or neutral condition immediately preceding the second testing showed Scs (N=42) more variable for self-concept but not for health or food responses. Failure significantly increased self-concept variability for Scs but not for controls. Guller concluded that Scs appear to have a self-concept disorder component which manifests itself through inconsistent self-descriptions. He suggested that some Sc symptomatology may reflect efforts to establish a stable, if unrealistic, concept of self.

Several studies (Mark, 1953; Gerard & Siegel, 1950; Freeman & Grayson, 1955; Tietze, 1949) showed that the early home life of the Sc is characterized by much nagging, scolding, and criticism. These studies evolved a picture of a child who is rejected and confused, and learns a pervasive feeling of worthlessness. He fails to develop any self-esteem or sense of personal identity, and detaches himself emotionally

in a desperate attempt to avoid further hurt. He is on the way to full-blown Sc.

Manasse (1965) explored the effect of the social setting upon the self-regard of chronic Scs. It was hypothesized that self-regard is related to the degree to which a person is able to meet the demands and expectations of his social setting. Two groups of Scs were compared. Group 1 was hospitalized and Group 2 attended a day treatment center. Hilden's Q-sort procedure was used to obtain a measure of self-regard. Results revealed that the hospitalized group had higher self-regard than the non-hospitalized group. The findings were interpreted as shedding more light on the importance of the situational variable in the development and maintenance of self-regard.

Jackson and Carr (1955) studied the empathic ability of 20 female Scs and 20 normal controls (student nurses). The subjects described themselves, an associate, another psychotic, and a normal. The latter two persons were known to each subject for only a brief interview. The empathy ability was based on the discrepancy between the subject's prediction of how "the other" would rate herself on the 40-item scale and how she actually rated herself. The results showed the Scs manifested poorer empathic ability than the controls. However, there were extreme individual differences within the groups. The findings were interpreted by the authors as demonstrating the Sc's general deficiency in the area of psychological closeness and identification with others.

Helfand (1956) explored role-taking characteristics in Scs. The autobiography of a former hospital patient was obtained, from which an 80-item Q-sort was selected and administered to the subject himself to serve as the criterion. Twenty-five Scs (15 chronics and 10 "privileged", i.e., permitted freedom of the grounds), 20 normals (functioning members of the non-hospitalized community), and 19 tuberculous patients sorted the items as if "they were" the person whose autobiography they had read. The similarity between this sorting and that of the criterion was the measure of empathic (role-taking) ability. The results showed that the normal individuals were superior to the chronic Scs in this ability, although privileged Scs demonstrated the highest degree of sensitivity for "the other".

Fagan and Guthrie (1959) correlated responses of 20 Sc patients to a Q-sort, including items describing perceptions of self and other people and ways of relating to others. The results showed that the Scs did not perceive themselves as similar to their concept of the normal person. "The schizophrenic does know, and will report, that he is different from the stereotypes of normalcy which he apparently shares with non-schizophrenics (Fagan & Guthrie, 1959, p. 206)." The authors concluded that Scs do not differ from normals in their conception of the average other, but in their perception of themselves.

Chase (1957) measured psychological maladjustment with Q-sort data utilizing concepts of self, ideal self, and the

average other person. It was found that only measures containing the self-sort could discriminate a group of "adjusted" (50 patients without evidence of psychiatric difficulties who were hospitalized on medical wards) from three groups of "maladjusted" (19 psychotics, 20 neurotics, and 17 personality disorders) hospitalized patients. Maladjusted subjects saw themselves as being different from their ideals and from their concept of the average other person, while adjusted subjects did not view themselves as different. Both groups held similar conceptions of the ideal self and of the average other person.

Epstein (1955) investigated the manner in which normals evaluated their unrecognized expressive movements, and compared their reactions with those of chronic Scs. The results indicated that, unconsciously, the Scs evaluated themselves more highly than normals. However, they were not able to perceive similarity in their expressive movements as well as normals.

Nickols (1966), employing the Self-Image Rating Scale (a modification of the Waraday-Nickols Scale, used to measure the changes of the self-concept during adolescence), reported that, unlike normal controls, Scs differed significantly from each other but showed a dichotomous departure as a group from the central trend of the control group. The Scs showed extreme self-enhancement and self-depreciation.

Using 44 hospitalized Sc women, Kamano (1961) found that the Sc subjects who revealed extreme self-satisfaction (in

contrast to those who admitted some dissatisfaction) denied threatening features of themselves to such an extent that they recalled less items reflecting unfavorable personality characteristics from a passage designed to simulate a personality evaluation. This group also revealed greater discrepancy between their level of performance and level of aspiration.

Schizophrenia: Paranoid Type--Theory

The hallmark of Paranoid Schizophrenia (PaSc) is the presence of hallucinations and delusions in which reality is distorted. Along with these are found thought disturbance and affective alterations which typify Sc in general (Zax & Stricker, 1963). This disorder usually has its onset at a somewhat later age (generally after 30 years) than other forms of Sc. Among its earliest symptoms are ideas of reference, the notion that the remarks and actions of others, despite the fact that they seem to have nothing to do with the PaSc, are made and done with him in mind. While the delusions which develop may become numerous and changeable, they commonly are cast in a persecutory mold, so that the people around the PaSc are seen as threatening him with physical or material harm. Another form frequently taken by such delusions is grandiosity. Sometimes the grandiose ideas follow from the persecutory feelings as a means of explaining them. Thus, if so many people are going out of their way to make life difficult for one, it must be that one is a

particularly important person. As personality disorganization progresses, the delusional beliefs become more far-fetched, eventuating in a complete abandonment of logic. The verbal expressions of PaScs are often inappropriate and at times are neologistic. Hallucinations usually occur in the auditory sphere and are generally accusatory or threatening.

For psychoanalytic theory, the core of the PaSc's persecutory delusions is a conflict over homosexual impulses. This model begins with the experience of a sexual impulse ("I love him") followed by the denial of this impulse ("No, I don't love him"), leading to the counterclaim "I hate him--he is a homosexual", ending with the re-emergence of the loved person as a dangerous enemy, a persecutory villain (Cameron, 1959).

In the Sullivanian model (Sullivan, 1953), the basis of the problem is the Paranoid's deep feeling of inferiority and worthlessness which leads to distortions of reality in an attempt to provide some semblance of self-esteem and interpersonal viability. Cameron (1959) felt the thought processes of the PaSc are a distortion of certain aspects of normal self-referent thinking and feeling. Because of his lack of interpersonal security and his social isolation, the PaSc must face emotional crises alone. Driven by anxiety, he attempts to piece together fragments of his hostile world into some coherent system. Ultimately, the "paranoid pseudo-community" is formed (Cameron, 1959), a reconstruction of reality which

organizes the actual and projected behavior of the people around him into a "comprehensible" conspiracy against the Paranoid. This crystallization often takes place with a sudden flash of insight.

PaScs may report positive and accepting attitudes toward the self but they are based upon distortions or misperceptions in self-appraisal. People who employ projection are unaware that they possess undesirable traits themselves (Sears, 1936); the very purpose of projection is to prevent such insight.

Schizophrenia: Paranoid Type--Research

The effect of projection is pointedly illustrated in a study by Friedman (1955). To understand Friedman's results it is necessary to assume, as does Levitt (1967), that a PaSc is likely to distort reality in the interest of improving his self-concept. Friedman's investigation showed that a positive correlation existed between self and ideal concepts among normal people, but no relationship at all among neurotics. Among PaScs, the correlation was almost as high as it was for the normal group. Friedman concluded that the PaSc, by distorting his view of himself or of his environment, is able to establish a relationship between self-concept and ideal concept which resembles that of normal individuals who have no need for such distortion. However, if a PaSc cannot differentiate an ideal (or normal) person (or personality description) from

a Sc person (or personality description), then he will not know in what direction to distort reality to improve his self-concept.

Schizophrenia: Chronic Undifferentiated Type

The Chronic Undifferentiated Type includes persons with Sc symptomatology which does not form a clear pattern and tends to persist. This diagnosis is also often applied to very long-term patients who may once have displayed clearly the symptoms consistent with one of the other subcategories but who, with the passage of time, have "burned out" to the degree that one can no longer distinguish the original symptomatology (Zax & Stricker, 1963).

A very affectless disregard typifies these people, and their pattern of thought leaves no doubt as to their being Scs. These people are in what Arieti (1959) called the "pre-terminal stage" of the disorder.

The diagnosis is occasionally used for those persons who are floridly Sc, but whose symptoms are not entirely consistent with any of the established reaction types. This is one of the most frequently diagnosed of the Sc subcategories and, as such, may often provide a "wastebasket" for the resolution of difficult differential diagnostic problems.

Criminal Activity

"Most criminals . . . are not maladjusted mentally, and most psychologically maladjusted persons are not criminals (Vedder, 1954, p. 118)."

Crime, according to psychoanalysis, is motivated by many unconscious factors. "Criminal activity is a prolongation of infantile behavior into adulthood (Alexander & Staub, 1931)." Anna Freud (1946) felt aggressive behavior on the part of an adult is caused by a child "identifying with the aggressor", through fear and guilt, and later retaliating with specific or generalized aggression.

According to Adler (1956), the criminal looks for excuses and justification, for extenuating circumstances, and for reasons that "force" him to be a criminal. He stated that criminals evade problems they do not feel strong enough to solve, hide their feelings of inadequacy by developing a superiority complex, and feel they are neglected and look for evidence to confirm this feeling.

Healy and Bronner (1936) described the wish for punishment of the self or parents as a motive for delinquent behavior, in addition to Adlerian concepts such as "masculine protest" and "inferiority feelings".

Aichorn (1963) felt the delinquent was an individual still governed by the pleasure principle. Socialization failed with the delinquent because of an "unharmonious home situation and lack of love from parents".

Research Demonstrating the Relationship Between Self-Concept and Behavior Using the Tennessee Self-Concept Scale

Havener and Izard (1962) hypothesized that PaScs have greater distortion in the perception of self and others than non-PaScs or normals. A PaSc can improve his self-concept provided he knows in what direction to distort reality. Twenty PaScs, 10 Non-PaScs, and 20 normals were given the Berger Scale (items referring to the self and others; used to measure perception of others) and the Tennessee Self-Concept Scale (TSCS--used to measure self-perception). The results showed that PaScs accepted fewer mildly self-derogatory statements about themselves, expressed a greater amount of self-satisfaction, had higher opinions of their personal characteristics, and lower opinions of their family relationships than did normals and non-PaScs. The PaScs over-rated themselves, as compared with the other groups. The authors reasoned that this was evidence of unrealistic self-enhancement and a defense against complete loss of genuinely positive self-related affect and of satisfying interpersonal affective ties.

Atchison (1958) found a number of predicted differences, using the Counseling Form of the TSCS, between delinquent and non-delinquent high school boys. All variables except Self-Criticism (defensiveness and openness) and Distribution scores (manner in which a person distributes his answers across available choices) were different in the predicted direction. The delinquents had lower Total Positive (overall level of

self-esteem) and higher Variability scores (amount of inconsistency from one area of self-perception to another).

Piety (1958) found that the Total Positive score discriminated between psychotics, non-psychotic patients, and non-patient controls at the .005 level.

Lefeber (1965) found differences between male juvenile first offenders and repeated offenders. Both of these groups were different (in expected directions) from a control group. Using the Clinical and Research Form of the TSCS he found the highest spike in the offender's profiles to be on the Personality Disorder Scale, which he had predicted. The delinquent recidivists obtained the lowest level of personal adjustment and personality integration, the first offenders next, and the non-delinquents the highest level of adjustment.

Runyon (1958) investigated racial difference and found no self-concept discrepancies, on the TSCS, of 51 male and female Caucasian college students compared to 59 male and female Negroid college students.

Congdon (1959) evaluated the effects of a tranquilizing drug (chlorpromazine) on the self-concept, the ideal self, and the generalized other of chronic Scs. The subjects in this study showed symptomatic and behavioral improvements but no significant change in self-concept, ideal self, or in the generalized other (generalizations from this study, concerning the effects of medication, are very limited due to the fact that only the Total Positive and Self-Criticism scores

from the TSCS were used). Congdon's conclusions were: (a) In comparison to normals, chronic Scs have self-concepts which are highly positive or highly negative, although the preponderance of them are on the negative side; (b) the chronic Sc's ideal self is significantly lower; and (c) the chronic Sc's concept of the generalized other is more extreme (more positive or more negative).

In Chapter III, the methodology is established to measure the ability of Scs to differentiate self-concept descriptions.

CHAPTER III

METHODOLOGY

Subjects

Sixty male inmates who had been diagnosed (within two months of this study) as schizophrenic (Sc), and 30 male inmates who had no diagnosed psychopathology (NSc), were subjects.

The Sc group consisted of 30 Paranoids (PaSc) and 30 Chronic Undifferentiated Schizophrenics (Und). Persons with Acute Schizophrenic Episodes were not subjects. Fifteen PaScs and 15 Und were on medication. The Sc group was chosen from the State Prison of Southern Michigan at Jackson (SPSM) and from Ionia State Hospital for the Criminally Insane (ISH). Thirteen PaScs and 10 Und from SPSM, and 17 PaScs and 20 Und from ISH were subjects.

The NSc group consisted of nursing aids, clerks, and typists at the Psychiatric Clinic of SPSM. None of the NSc subjects were on medication.

All subjects were from 18 through 40 years of age, and had at least a sixth grade reading level (determined by Average Grade Rating scores). No subject was a patient in psychotherapy for more than two months prior to this study.

Measurement Device

The Counseling Form of the Tennessee Self-Concept Scale was used to measure an individual's self-perception (refer to Appendix A). It consists of 100 standardized statements descriptive of the self in five different areas of self-concern, 45 statements being positive and 45 being negative. Ten additional statements, taken from the MMPI Lie Scale, are included to measure a person's honesty in responding.

The Scale is self-administering for either individuals or groups and can be used with subjects age 12 or older and having at least a sixth grade reading level. Most subjects complete the test in 10 to 20 minutes. According to Fitts (1965), the Scale is "applicable to the whole range of psychological adjustment from healthy, well-adjusted people to psychotic patients."

The areas of self-concern, with reliability data (based on test-retest with 60 college students over a two-week period), measured by the Scale include:

1. Self-Criticism Score (.75): Defensiveness, openness, and capacity for self-criticism.
2. Positive Scores (.74): (a) "This is what I <u>am</u>", (b) "This is how I <u>feel</u> about myself", and (c) "This is what I <u>do</u>".
    a. Total Positive Score (.92): Overall level of self-esteem.
    b. Identity (.91): What the individual is as he sees himself.

c. Self-Satisfaction (.88): Level of self-satisfaction and acceptance.

d. Behavior (.88): Individual's perception of the way he functions.

e. Physical Self (.87): View of his body, health, physical appearance, skills, and sexuality.

f. Moral-Ethical Self (.80): Moral worth, relationship to God, feelings of being a "good" or "bad" person, and satisfaction with one's religion or lack of it.

g. Personal Self (.85): Sense of personal worth, feeling of adequacy as a person, and evaluation of personality apart from body or relationships to others.

h. Family Self (.89): Feelings of adequacy, worth, and value as a family member.

i. Social Self (.90): Sense of adequacy and worth in social interaction.

3. Variability Scores (.67): Amount of inconsistency from one area of self-perception to another.

4. Distribution Score (.89): Manner in which a person distributes his answers across the five available choices in responding to the items.

5. Time Score (89): A measure of the time, to the nearest minute, that the subject requires to complete the Scale. Little is known as to its meaning or significance.

The standardization group from which the norms were developed was a broad sample of 626 people. The sample included people from various parts of the country, and their ages ranged from 12 to 68 years. There were approximately equal numbers of both sexes, Caucasian and Negroid subjects, representatives of all social, economic, intellectual and educational levels from the sixth grade through the Ph.D. degree.

Fitts (1965) suggested that there is no need to establish separate norms by age, sex, or race. However, the norm group does not reflect the population as a whole in proportion to its national composition. The norms are over-represented in number of college students, Caucasians, and persons in the 12 to 30 year age bracket.

Through various types of profile analyses Fitts (1965) has demonstrated that the distinctive features of individual profiles are still present for most persons a year or more later.

By an intercorrelation of scores, Fitts (1965) found that the major dimensions of self-perception (self-esteem, self-criticism, variability, certainty, and conflict) are all relatively independent of each other.

Validation procedures:

1. Content Validity: An item was retained in the Scale only if there was unanimous agreement by the judges that it was classified correctly.
2. Discrimination Between Groups: Fitts (1965) stated that personality theory and research suggest that

groups which differ on certain psychological dimensions should also differ in self-concept. One approach to validity was to determine how the Scale differentiates groups.

a. Discrimination on the basis of psychological status: Psychiatric patient groups almost always showed more extreme scores, on practically all variables, than the norm groups.
b. Discrimination within patient groups: Fitts (1965) felt if the self-concept is a useful approach in assessing an individual's state of mental health, it should differentiate type of disorder as well as degree of disorder.

PaScs are characterized by their use of the projection mechanism which enables them to blame, criticize, and mistrust others rather than themselves. Therefore, it follows that their profiles showed them to be the lowest of the patient groups on the Self-Criticism score and highest on the Total Positive score (overall level of self-esteem). PaScs have shown an inability to express the self-concern or dissatisfaction which would be consistent with the rest of their self-perceptions.

"Self-evaluation from an external frame of reference is much more variable than from an internal frame of reference (Fitts, 1965)." Fitts speculated that people with psychological disturbances are more focused upon external sources of evaluation.

Procedures

The Tennessee Self-Concept Scale (TSCS) was administered to all subjects in groups of five to ten persons. Each SPSM group contained NScs, PaScs, and Und while each ISH group consisted of PaScs and Und.

Each subject in each diagnostic category was randomly assigned to an experimental or control group. There was an equal number (15) of NSc, PaSc, and Und subjects in the experimental and control groups. Seven PaScs and five Und from SPSM, and eight PaScs and 10 Und from ISH were in the experimental group.

While none of the NSc subjects were on medication, eight PASc and eight Und subjects in the experimental group, and eight PaSc and eight Und subjects in the control group were on medication.

When the hand-scored results of the TSCS were available, a self-concept profile was written for each of the 45 experimental subjects (refer to Appendix B). Each description is approximately of equal length and appropriate for a sixth grade reading level (Thorndike & Lorge, 1944).

Two weeks after they had taken the TSCS, the experimental subjects were called individually into a testing room in a random order. Each subject read his own profile description. The 45 control subjects did not receive any feedback.

One week after the experimental group received feedback, all subjects in both the experimental and control groups were called individually into a testing room in a random order.

Each subject was presented with three stereotyped profile descriptions, one on top of another. These include a NSc, PaSc, and an Und profile (refer to Appendix C). Each description is approximately of equal length and appropriate for a sixth grade reading level (Thorndike & Lorge, 1944).

The order of the stereotyped profiles was randomized across subjects. Each subject was instructed to read all three profile descriptions and to choose which profile best describes him.

Six psychotherapists at the Psychiatric Clinic of SPSM achieved one-hundred per cent reliability when they chose the stereotyped profile which best describes a NSc, a PaSc, and an Und. The Sc profiles are derivations of the Pa and Sc scales from the MMPI.

A binomial test for each diagnostic category was performed in the pilot study (NSc, PaSc, and Und subjects were instructed to read all three stereotyped profile descriptions and to choose which profile best describes him), and showed that the stereotyped profiles significantly discriminated between diagnostic categories. Also, a binomial test showed that the schizophrenic subjects who were not on medication had a significantly higher frequency of success, in choosing the appropriate profile, than did the schizophrenics who were on medication (refer to Appendix D).

Hypotheses

H_1: The frequency of success, in choosing the appropriate profile, will be related to diagnostic category. The NSc group will be the most successful, followed by the PaSc group and the Und group, respectively.

Hypothesis Derivation--Freeman, Cameron, and McGhie (1958) concluded that Scs have problems in differentiating their ego boundary and have difficulty, under conditions of ambiguity, in distinguishing between themselves and others (refer to Chapter I). Sc is seen (Wynne & Singer, 1963) as the result of a failure to develop a clear and stable ego identity (refer to Chapter II). Scs are characterized by disorientation, loss of contact with reality, and disorganized patterns of thinking and feeling. These traits are more extensive in the Und than in the PaSc. PaScs are more attuned to social stimulation, and exert a greater effort to hold onto their self-concept, than the Und.

Instrumentation--A stereotyped profile description of a NSc, PaSc, and an Und (refer to Appendix C).

H_2: The experimental group, with the diagnostic categories pooled, will have a significantly higher frequency of success than will the pooled control group (the Feedback-No Feedback main effect will reach significance).

Hypothesis Derivation--Self-concept feedback will enable the individual to feel he has an identity as a person, and a heightened awareness of self is created (refer to Chapter II).

Instrumentation--Feedback consisted of a written self-concept profile taken from the individual's Tennessee Self-Concept Scale scores (refer to Appendix B).

H_3: The experimental group will have a significantly higher frequency of success, than will the corresponding control group, in each of the diagnostic categories (the Diagnostic Category x Feedback-No Feedback interaction will not reach significance).

Hypothesis Derivation--Same as H_1 and H_2 above.

Instrumentation--Same as H_1 and H_2 above.

H_4: The frequency of success, in choosing the appropriate profile, will be related to medication. The Sc subjects who are not on medication will be more successful than those on medication. The relationship between medication and no medication conditions will be similar for PaSc and Und subjects (the Diagnostic Category x Medication-No Medication interaction will not reach significance). Also, this relationship will be similar for subjects in the Feedback and the No Feedback condition (the Medication-No Medication x Feedback-No Feedback interaction will not reach significance).

Hypothesis Derivation--The pilot study showed that the Sc subjects who were not on medication had a significantly higher frequency of success, in choosing the appropriate profile, than did the Scs who were on medication (refer to Procedures section in Chapter III and to Appendix D).

Instrumentation--Same as H_1 and H_2 above.

Analysis of the Data

The data were analyzed (using the analysis of variance (ANOVA) routine on the Control Data Corporation 3600 computer at the Michigan State University Computer Center) with three different two-way fixed factor analyses of variance for Bernoulli dependent variables, using the method described by Lunney (1969).

Lunney (1969) stated that one of the assumptions underlying ANOVA is the normal distribution of the dependent measures obtained in each set of subjects treated the same. ANOVA can be used, when the dependent variable is a Bernoulli variable, as a meaningful alternative to chi-square analysis, especially for more complex configurations.

Lunney (1969) listed the following restrictions for ANOVA: If the probability of obtaining a "one" as an observation for a subject is between .2 and .8, then at least 20 degrees of freedom for the error term are needed for ANOVA to be appropriate. If the probability of obtaining a "one" is more extreme, .1 or .9, then at least 40 degrees of freedom for the error term are required to make ANOVA an appropriate statistical technique to be used with Bernoulli values. This study exceeded the 40 degrees of freedom criterion for all analyses that were undertaken.

A Newman-Keuls post-hoc paired comparisons test (Winer, 1962) was used in order to further elaborate the locus of the main effects in the ANOVA. A significance level of .05 was used for all analyses in the present study.

CHAPTER IV

RESULTS

The lack of any NSc subjects (Ss) on medication, combined with unequal cell frequencies for medicated Ss within the Feedback-No Feedback dimension for the PaSc and Und groups, ruled against the utilization of a single three-way fixed factor analysis of variance for the data analysis. Therefore, the data were analyzed using three different two-way fixed factor analyses of variance as listed below:

a. Diagnostic Category (NSc, PaSc, Und) x Feedback-No Feedback (Experimental-Control).

b. Diagnostic Category x Medication-No Medication.

c. Feedback-No Feedback x Medication-No Medication.

Hypothesis 1: The frequency of success, in choosing the appropriate profile, will be related to diagnostic category. The NSc group will be the most successful, followed by the PaSc group and the Und group, respectively.

The Diagnostic Category by Feedback-No Feedback (two factor) analysis of variance is shown in Table 1. The Diagnostic Category main effect was highly significant ($F=10.300$, $df=2/84$, $p<.005$). As can be clearly seen in Table 2, the NSc group made 24 correct profile choices, while the PaSc group correctly chose 20 and the Und group made only 9

TABLE 1.--Summary of Analysis of Variance of Stereotyped Profile Choices for Non-Schizophrenic, Paranoid Schizophrenic, and Chronic Undifferentiated Schizophrenic Subjects (Diagnostic Category) Under Feedback or No Feedback Conditions.

Source	SS	df	MS	F	p
Diagnostic Category	4.022	2	2.011	10.300	<.005
Feedback-No Feedback	1.344	1	1.344	6.886	.010
Diagnostic Category x Feedback-No Feedback	.022	2	.011	.056	.945
Error	16.400	84	.195		
Total	21.788	89			

TABLE 2.--Frequencies (f) and Percentages (%) of Stereotyped Profile Choices* for Non-Schizophrenic (NSc), Paranoid Schizophrenic (PaSC), and Chronic Undifferentiated Schizophrenic (Und) Subjects Under Feedback or No Feedback Conditions.

Diagnostic Category	Feedback Conditions	NSc		PaSc		Und		Total	
		f	%	f	%	f	%	f	%
NSc	Feedback	(14)	93	1	07	0	00	15	100
	No Feedback	(10)	67	3	20	2	13	15	100
PaSc	Feedback	2	13	(12)	80	1	07	15	100
	No Feedback	3	20	(8)	53	4	27	15	100
Und	Feedback	4	27	5	33	(6)	40	15	100
	No Feedback	6	40	6	40	(3)	20	15	100
	TOTAL	39	43	35	39	16	18	90	100

*Appropriate choices are indicated by parentheses.

appropriate choices. The proportional data (see Table 3) also revealed a similar trend.

A Newman-Keuls post-hoc paired comparisons test (Winer, 1962) was undertaken in order to determine the locus of the Diagnostic Category effect. The results showed that the NSc group had a significantly higher mean frequency of correct profile choices as compared to the Und group ($p<.01$). The PaSc group also had a significantly higher mean frequency of correct choices as compared to the Und group ($p<.01$). However, there was no significant difference in mean frequency between the NSc and PaSc groups ($p>.05$).

Therefore, Hypothesis 1 was partially confirmed. Although the Diagnostic Category effect was highly significant, and the particular diagnostic groups were in the hypothesized order, the NSc group did not significantly differ from the PaSc group with respect to the mean frequency of correct profile choices.

> Hypothesis 2: The experimental group, with the diagnostic categories pooled, will have a significantly higher frequency of success than will the pooled control group (the Feedback-No Feedback main effect will reach significance).

Referring again to Table 1, the Feedback-No Feedback effect was highly significant ($F=6.886$, $df=1/84$, $p=.010$). Table 2 and Table 3 show that when diagnostic categories were pooled, there were 32 correct profile choices under the Feedback condition and only 21 for the Ss who did not receive any feedback. Viewing the results in another manner, 71% of the

TABLE 3.--Proportion (p) and Percentages (%) of Correct Profile Choices for Non-Schizophrenic (NSc), Paranoid Schizophrenic (PaSc), and Chronic Undifferentiated Schizophrenic (Und) Subjects.

	Diagnostic Category							
	NSc		PaSc		Und		Total	
	p	%	p	%	p	%	p	%
Feedback	$\frac{14}{15}$	93	$\frac{12}{15}$	80	$\frac{6}{15}$	40	$\frac{32}{45}$	71
No Feedback	$\frac{10}{15}$	67	$\frac{8}{15}$	53	$\frac{3}{15}$	20	$\frac{21}{45}$	47
Total	$\frac{24}{30}$	80	$\frac{20}{30}$	67	$\frac{9}{30}$	30	$\frac{53}{90}$	59

Ss in the feedback group chose the correct stereotyped profile, compared to 47% of the Ss in the No-Feedback condition.

In summary, the above hypothesis was strongly supported; the Feedback condition was associated with a significantly higher frequency of correct profile choices as compared to the No-Feedback condition.

> Hypothesis 3: The experimental group will have a significantly higher frequency of success, than will the corresponding control group, in each of the diagnostic categories (the Diagnostic Category x Feedback-No Feedback interaction will not reach significance).

Table 2 and Table 3 show that the Ss who received feedback were more successful on the stereotyped profile choice task than those Ss who did not receive feedback. This superiority of the Feedback condition over the No-Feedback condition held for each diagnostic category when using frequency, proportional, or percentage measures. The lack of a significant Diagnostic Category x Feedback-No Feedback interaction ($F=.056$, $df=2/84$, $p=.945$) attested to the fact that the Feedback-No Feedback relationship was similar for each diagnostic category.

Therefore, Hypothesis 3 was supported; the Feedback condition was superior to the No-Feedback condition in a similar manner with respect to each diagnostic group.

> Hypothesis 4: The frequency of success, in choosing the appropriate profile, will be related to medication. The Sc subjects who are not on medication will be more successful than those on medication. The relationship between medication and no medication conditions will be similar for PaSc and Und subjects (the Diagnostic Category x Medication-No Medication interaction will not reach significance). Also, this relationship will be

similar for subjects in the Feedback and the No Feedback condition (the Medication-No Medication x Feedback-No Feedback interaction will not reach significance).

In order to evaluate the first part of the above hypothesis, a two-way analysis of variance (Diagnostic Category by Medication-No Medication) was undertaken. It should be noted that the NSc Ss were deleted from this particular analysis, since there were no NSc Ss on medication during the present study. Table 4 gives the results of this analysis. The Diagnostic Category effect (based upon the PaSc and Und groups) was highly significant ($F=9.307$, $df=1/56$, $p=.003$). This effect again showed that the PaSc group had a significantly higher frequency of correct profile choices as compared to the Und group. The Medication-No Medication effect was of borderline significance ($F=3.769$, $df=1/56$, $p=.057$). There were 18 correct profile choices for those Scs off medication, while the medicated Scs chose correct profiles only 11 times (see Table 5). Viewed in a different manner, 60% of the Scs off medication chose the appropriate profile, as compared to 37% for the Scs on medication (see Table 6).

The Diagnostic Category x Medication-No Medication interaction did not reach significance ($F=.076$, $df=1/56$, $p=.783$). That the relationship between Medication-No Medication groups is similar for the PaSc and Und groups is shown in Table 5.

The second part of Hypothesis 4, concerning the Medication-No Medication x Feedback-No Feedback interaction, was evaluated using a two-factor analysis of variance

TABLE 4.--Summary of Analysis of Variance of Stereotyped Profile Choices for Paranoid Schizophrenic and Chronic Undifferentiated Schizophrenic Subjects Under Medication or No Medication Conditions.

Source	SS	df	MS	F	p
Diagnostic Category	2.016	1	2.016	9.307	.003
Medication-No Medication	.816	1	.816	3.769	.057
Diagnostic Category x Medication-No Medication	.016	1	.016	.076	.783
Error	12.133	56	.216		
Total	14.981	59			

TABLE 5.--Proportion of Correct Profile Choices for Medicated and Non-Medicated Paranoid Schizophrenic (PaSc) and Chronic Undifferentiated Schizophrenic (Und) Subjects.

	PaSc	Und	Total
Medication	8/15	3/15	11/30
No Medication	12/15	6/15	18/30
Total	20/30	9/30	29/60

TABLE 6.--Proportion (p) and Percentage (%) of Correct Profile Choices for Medicated and Non-Medicated Paranoid Schizophrenic (PaSc) and Chronic Undifferentiated Schizophrenic (Und) Subjects Under Feedback or No Feedback Conditions.

	PaSc				Und					
	Feedback		No Feedback		Feedback		No Feedback		Total	
	p	%	p	%	p	%	p	%	p	%
Medication	$\frac{5}{7}$	71	$\frac{3}{8}$	38	$\frac{2}{8}$	25	$\frac{1}{7}$	14	$\frac{11}{30}$	37
No Medication	$\frac{7}{8}$	88	$\frac{5}{7}$	71	$\frac{4}{7}$	57	$\frac{2}{8}$	25	$\frac{18}{30}$	60

(Medication-No Medication by Feedback-No Feedback). First of all, as is shown in Table 7, the Feedback-No Feedback effect was of borderline significance (F=3.430, df=1/56, p=.069). Since this particular analysis was undertaken with an N of 60 (NScs were deleted), the lower significance value was due to the smaller sample size as compared to the Feedback-No Feedback effect when all Ss (N=90) were included (see Table 1).

The Medication-No Medication effect also was of borderline significance (F=3.430, df=1/56, p=.069). This significance value is similar to the Medication-No Medication effect in the previous Diagnostic Category by Medication-No Medication two-factor analysis of variance (see Table 4). Most important in the present analysis was the lack of a significant Feedback-No Feedback x Medication-No Medication interaction (F=.070, df=1/56, p=.792) as shown in Table 7. The similarity in the relationship between the Medication-No Medication groups in both the Feedback and No Feedback conditions is illustrated in Table 8.

Hypothesis 4 was partially supported in that the group of Scs off medication were more successful on the profile choosing task, as compared to those on medication. However, this effect was of borderline statistical significance. As hypothesized, there was no Diagnostic Category x Medication-No Medication interaction or Feedback-No Feedback x Medication-No Medication interaction when the NSc group was deleted from the analysis.

TABLE 7.--Summary of Analysis of Variance of Stereotyped Profile Choices for Schizophrenic Subjects Under Feedback or No Feedback, and Medication or No Medication, Conditions.

Source	SS	df	MS	F	p
Feedback-No Feedback	.816	1	.816	3.430	.069
Medication-No Medication	.816	1	.816	3.430	.069
Feedback-No Feedback x Medication-No Medication	.016	1	.016	.070	.792
Error	13.333	56	.238		
Total	14.981	59			

TABLE 8.--Proportion of Correct Profile Choices for Medicated and Non-Medicated Schizophrenic Subjects Under Feedback or No Feedback Conditions.

	Feedback	No Feedback	Total
Medication	7/15	4/15	11/30
No Medication	11/15	7/15	18/30
Total	18/30	11/30	29/60

Summary

It was clearly shown that diagnostic category is strongly related to performance on the stereotyped profile choice task. The NSc group was most successful, followed by the PaSc and Und groups, respectively. With diagnostic categories pooled, the feedback condition effected a significantly greater amount of success on the task than the no-feedback condition. There was some evidence supporting the contention that those Sc Ss off medication were more successful on the task as compared to those on medication. The effects of medication did not interact with either the diagnostic category or feedback dimensions, nor did the diagnostic category factor interact with the feedback condition. Finally, no noticeable differences, with respect to any finding, were evident between SPSM and ISH Ss.

CHAPTER V

DISCUSSION

The purpose of this study was to investigate the schizophrenic's (Sc) use of self-concept information.

Self-Concept: Theory

The "self" is an individual's dynamic organization of concepts, values, goals, and ideals which determine ways in which he should behave. This self takes on various subjective attributes in the form of "I am" (nature), "I can" (capacities), "I should or should not" (values), and "I want to be" (aspirations).

As soon as an infant interacts with his environment, he begins to be aware of himself as an entity separate from events around him. He notices or attends to and thinks about attributes of himself and things he does. Events become symbolized in awareness by images and words, and organized into a "consistent conceptual gestalt". Learned primarily by his perception of how "significant others" react to him, the infant is likely to divide these reactions into the grossest of categories, such as "good" and "bad". If his needs are taken care of, if he is loved and appreciated and feels wanted, if he feels safe and secure and relatively free of stress and tension,

then he is likely to develop a positive self-concept. If not, he sees himself as unwanted, unworthy, and insecure, and develops a negative conception of himself.

Potential stimuli inconsistent with the self-concept are rejected, and only consistent ideas and events take effect as stimuli. But sometimes a stimulus is so strong that it forces itself upon the organism. This stimulus can be assimilated only under the condition that the self-concept is modified so this new idea, belief, or happening can be accommodated without discrepancy.

When an individual's self-concept is threatened, his field of perception is narrowed and distorted. He responds only to threat-producing aspects of his field and seeks to defend his existing self-organization and consequently his existing perceptual pattern. Individuals under threat find it difficult to change themselves. It becomes difficult for the person to form new perceptions of himself, for he selects his perceptions in terms of his previous concepts of himself.

Many Scs are unable to form a clear impression of themselves because of their need to justify rather than to understand their behavior. Psychological adjustment exists when all ways in which the individual perceives himself are accepted into his organized conscious concept of himself. The adequate personality is one in whom the self is well integrated, in the sense that his subjective descriptions of himself are characteristic of similar categories of people, and

as a result of this he can readily accept into his organized conscious concept of self all his interpretations of reality, including perceptions of himself (McQuitty, 1950).

One significant consequence of the growing interest in the formulation of a phenomenological theory of personality has been the attempt to lend operational clarity to the measurement of the self-concept (Cowen, Heiliger, & Axelrod, 1955).

Repressed aspects of the personality are often experienced as external to the self in a hallucinatory way and the Sc is highly confused in his perception of others (Wolman, 1965). Since Scs are less aware of their ego boundaries and are more prone toward feelings of dispersion or diffusion, it was hypothesized that they will be less able to differentiate stereotyped self-concept descriptions that non-Scs.

Self-Concept: Research

Much previous research has focused upon the self-concept. Scheerer (1949) and Stock (1949) have found from their research that a change in the attitude toward the self is correlated with a change in attitude toward others. As an individual feels himself to be less worthy and less adequate he also becomes more critical and fault-finding of others.

The present research showed that the Sc has difficulty in tasks having to do with the integration of information dealing with his self-concept. The results showed that the

NSc could perform the same type of task with relatively little difficulty. Apparently problem-solving tasks having to do with material dealing with the self clearly differentiate the NScs from the Scs. However, as also indicated by the present study, this type of problem-solving task is able to distinguish individuals within Sc sub-categories (PaSc and Und). The PaSc group performed significantly better than the Und group in the present study. Although the NSc performed better than the PaSc group, the difference was negligible. Therefore, the difference between the NScs and PaScs, within the context of the present problem-solving task, was not great. It is interesting to note that the PaScs were closer in their performance to the NScs than to the Und.

Subgroups of Scs often differ from each other and may show specific deviations or unique patterns, e.g., as regards responses to ambiguous pictures (Draguns, 1963) and reactions to novel stimuli (McReynolds, 1963). PaScs, in contract to Und, maintain a greater degree of personality intactness. PaScs rarely demonstrate the pervasive disorganization of formal thought processes, the tangential flights of ideas, the neologisms, or gross disorientation found in the Und (Siegel, 1953).

In PaSc the more highly organized thought processes still function unimpaired. PaScs possess the dynamic efficiency of a socially adjusted ego, for PaScs cannot evade the influence of their superego standards (Alexander, 1963). The

NSc has normal sensitivity to his environment, the PaSc displays hyper-sensitivity due to psychosis, and the Und has hypo-sensitivity due to psychosis.

Retention and Abstraction

In the present study there was a one week waiting period after the experimental group received feedback until all Ss chose a stereotyped profile description. This feedback dealt with the integration of information and its generalization and incorporation in the profile choosing task. The conclusions of the present study have important relevance for such Sc manifestations as distractability, poor attentive capacity, and faulty concentration.

Lehmann (1963) stated that the capacity for adequate retention is possible in those Scs who have the ability to integrate their thought processes for reality testing. Scs are capable of sharp judgment when involved in a task and have the ability for abstract thought, although the emphasis is usually on detail.

Shakow (1963) and Weckowicz & Blewett (1959) concluded from their studies that PaScs show little evidence of impaired selective attention. PaScs (in contrast to other Scs) attempt to assimilate all stimuli and to achieve maximum congruence of information from the external world and their belief system (McReynolds, Collins, & Acker, 1964).

Scs are deficient in many aspects of problem-solving and concept-formation. The presence of the ability to engage in

abstract thinking is related to prognosis (Winder, 1960). Analysis of the Information items of the WAIS shows that Scs have greater difficulty with items requiring reasoning as compared with those demanding simple recall (Spence, 1963). Scs are especially inept on difficult problem-solving tasks, but are relatively less handicapped on more structured tasks (Hall, 1962). This relates to Shakow's (1962) notion of the Sc's inability to maintain major sets.

The above research is consistent with the findings of the present study with regard to the better performance of the PaScs as compared to the Und, and the minimal discrepancy between the NScs and the PaScs.

Medication

The results of the present study showed, though not conclusively, that those Scs off medication did better than those on medication.

In considering the effects of tranquilizing drugs on Scs, Sarwer-Forrer & Ogle (1956) found that drug-induced states often enhance anxiety. Cohen (1956), in a study of 1,400 Scs, found that 85% of those treated with Chlorpromazine reported considerable drowsiness.

Cohen, Senf, & Huston (1954) devised an object-sorting test which consisted of both neutral and "affect" (based on the individual's life history) objects. With the tests being given both with and without drugs, the Scs performance was lowered when on drugs. Senf, Huston, & Cohen (1955) investigated

verbal reasoning in Scs, administering selected tests from the Wechsler-Bellevue and Army Alpha, and an incomplete sentences test with and without drugs. An impairing effect was found while on drugs when a precise response was required.

Lehmann (1963) found that each group of Scs receiving a different anti-psychotic drug (Chlorpromazine, Haloperidol, and Chlorprothixene) reacted in the same manner after six weeks. Lehmann stated that the Sc placed on a major tranquilizer rapidly improves in his behavior, appearance, and in his ability to make contact and to participate in the social life of his environment. However, there is still the nucleus of the major pathology which is the essential characteristic of the Sc's psychotic state--namely, the hallucinations, delusions, and thought disorder. These symptoms are weakened and much less disturbing to the Sc and his environment, but they still exist.

Limitations of the Present Study

It should be noted, with respect to the present study, that the Scs on medication were taking different types and dosages of medication (the medication sample was very heterogenous). A study in which the type and dosage of medication is controlled would be more easily interpreted. Under the present circumstances, it is possible that those Scs on medication did worse than those off medication not because of the active properties of the drugs, but because these Scs were more psychologically disturbed. In other words, those Scs on

medication were put on medication precisely because they were excessively disturbed. It would have been more appropriate if the Scs on and off medication had been matched for degree of pathology prior to giving one group medication. The other group might have received a placebo, in a double-blind type of methodological design. However, the restrictions and population used in the present research precluded such a design.

When Sc is considered with other gross categories (e.g., neurosis), reliable differential diagnoses between the groups are quite high. However, when the diagnostic problem involves the various subtypes of schizophrenia, reliability among diagnosticians is quite low. Sc is very heterogeneous in composition; a schizophrenic "typology" does not emerge from the various aspects of the Sc personality (Rabin & King, 1958).

Methodological problems are involved in attempting to quantify the self-concept. In the present study, self-concept measurement was limited to the Tennessee Self-Concept Scale (TSCS). Further research should be undertaken to elucidate the relation of the TSCS with other instruments which purportedly measure similar dimensions of personality. Also, many Scs found that the answer sheet of the TSCS was difficult to follow and they needed assistance. A new format that does not require omitting every other item on the answer sheet should be developed.

Implications for Future Research

The relative paucity of information on self-concept feedback of Scs is itself sufficient to justify the need for more research in this area.

An idea for future research is to replicate the present study by putting all of the Scs on medication initially (to neutralize the effects of previous medication). Soon thereafter, the medication would be terminated and the Ss administered the self-concept profile choosing task. In this way the effects of medication would not be an influence. Also, it is of importance to determine the effects of medication on diagnostic entities other than Sc.

That the present study showed no difference between SPSM and ISH Scs means that the Scs in the two populations (prison, hospital-prison) do not differ with respect to the task involved in the present problem. It would be of interest to replicate the present study with hospitalized Scs who are not prisoners and with other Sc sub-categories to determine the generalizability of the results.

A final research implication derives from the TSCS Total Positive score (overall level of self-esteem) for the different diagnostic categories used in the present study. The NScs had a mean score of 331.466 (S.D.=27.731), the PaScs had a mean score of 344.733 (S.D.=37.453), and the Und group a mean score of 332.700 (S.D.=38.092). A one-way analysis of variance on this data was highly significant ($F=29.033$, $df=2/87$, $p<.01$). These post-hoc findings are clearly shown in

Appendix E. Since an increasing Total Positive score reflects higher self-esteem, it can be seen that the PaSc group had the highest level of self-esteem as measured by this component of the TSCS, followed by the Und and NSc groups, respectively. These findings provide some evidence that a high self-esteem level is not necessarily indicative of mental health. Further research is needed to elucidate the relationships between the various TSCS components and different treatment populations.

Conclusions

The following conclusions were reached with respect to the present study:

a. Diagnostic category is strongly related to performance on the stereotyped profile choice task. The NSc group was most successful, followed by the PaSc and Und group, respectively.

b. Across all diagnostic categories, the feedback condition effected a significantly greater amount of success on the task than the no-feedback condition.

c. There was some evidence supporting the contention that those Sc Ss off medication were more successful on the task as compared to those on medication.

d. The effects of medication did not interact with either the diagnostic category or feedback dimensions, nor did the diagnostic category factor interact with the feedback condition.

e. No noticeable differences, with respect to any finding, were evident between SPSM and ISH Ss.

The results of the present study support the contention that Scs have problems in differentiating their ego boundaries and have difficulty, under conditions of ambiguity, in distinguishing between themselves and others. It was shown that the Sc has difficulty integrating information dealing with his self-concept.

PaScs are more successful in tasks requiring the differentiation and integration of information than the Und. The paranoid process in Sc often enables PaScs to be more attuned to social stimulation and to exert a greater effort to hold onto their self-concept. While the Sc process in the Und does not compensate for the loss of ego boundaries, the adjustment of the PaSc may then be regarded as a positive attempt to offset the disintegration to which the Und has fallen prey and given up the battle.

Overall, the PaScs are closer to the NScs than to the Und group, with respect to the particular dimensions investigated in the present study. These findings do not deny the fact that all Scs are severely disturbed and their suffering is a reality, even though some are capable of adequately adjusting to their environment. Mankind cannot escape the common lot of pain endured by the Sc. We must speak on behalf of those who cannot be heard.

LIST OF REFERENCES

LIST OF REFERENCES

Ackner, B. Depersonalization: Etiology and phenomenology. Journal of Mental Science, 1954, 100, 838-853.

Aichorn, A. Wayward youth. New York: World Pub. Co., 1963.

Alexander, F., & Staub, H. (Eds.) The criminal, the judge, and the public. New York: Macmillan, 1931.

Alexander, F. Fundamentals of psychoanalysis. New York: Norton & Co., 1963.

Ansbacher, H. L., & Ansbacher, Rowena R. (Eds.). The individual psychology of Alfred Adler: A systematic presentation in selections from his writings. New York: Harper & Row, 1956.

Arieti, S. Interpretation of schizophrenia. New York: Robert Brunner, 1955.

Arieti, S. Schizophrenia: The manifest symptomatology, the psychodynamic and formal mechanisms. In S. Arieti (Ed.), American handbook of psychiatry. New York: Basic Books, 1959, 1. Pp. 455-484.

Atchison, C. O. A comparative study of the self-concept of behavior problem and non-behavior problem high school boys. Dissertation Abstracts, 1958, 19, Part 1, Nos. 5-7, 1010.

Bellak, L. (Ed.) Schizophrenia: A review of the syndrome. New York: Logos Press, 1958.

Bleuler, E. Dementia praecox or the group of schizophrenias. New York: International Universities Press, 1950.

Cameron, N. S. The paranoid pseudo-community revisited. American Journal of Sociology, 1959, 65, 52-58.

Cameron, N. S. Personality development and psychopathology. Boston: Houghton Mifflin, 1963.

Cattell, J. P. Depersonalization phenomena. In S. Arieti (Ed.), American handbook of psychiatry. New York: Basic Books, 1966, 3. Pp. 89-102.

Chase, P. H. Self-concepts in adjusted and maladjusted hospital patients. Journal of Consulting Psychology, 1957, 21, 495-497.

Cohen, B. D., Senf, Rita, & Huston, P. E. Effect of Amobarbital (Amytal) and affect on conceptual thinking in schizophrenia, depression, and neurosis. Archives of Neurology and Psychiatry, 194, 71, 171-180.

Cohen, I. M. Complications of Chlorpromazine therapy. American Journal of Psychiatry, 1956, 112, 115-121.

Congdon, C. S. Self theory and chlorpromazine treatment. Dissertation Abstract, 1959, 19, Part 2, Nos. 8-12, 1654-1655.

Cowen, E. L., Heiliger, F., & Axelrod, H. S. Self-concept conflict indicators and learning. Journal of Abnormal and Social Psychology, 1955, 51, 242-245.

Draguns, J. G. Responses to cognitive and perceptual ambiguity in chronic and acute schizophrenics. Journal of Abnormal and Social Psychology, 1963, 66, 24-30.

Erikson, E. H. The problem of ego identity. In E. H. Erikson, Identity and the life cycle. New York: International Universities Press, 1959, 1, No. 1, Mono. 1, 101-164.

Erikson, E. H. Identity: Youth and crisis. New York: Norton & Co., 1968.

Epstein, S. Unconscious self-evaluation in a normal and a schizophrenic group. Journal of Abnormal and Social Psychology, 1955, 50, 65-70.

Fagan, J., & Guthrie, G. M. Perception of self and normality in schizophrenics. Journal of Clinical Psychology, 1959, 15, 203-207.

Federn, P. Ego psychology and the psychoses. New York: Basic Books, 1952.

Fitts, W. Manual for Tennessee Self-Concept Scale. Nashville: Counselor Recording & Tests, Inc., 1965.

Forer, B. R. The fallacy of personal validation: A classroom demonstration of gullibility. Journal of Abnormal and Social Psychology, 1949, 44, 118-123.

Freeman, R. V., & Grayson, H. M. Maternal attitudes in schizophrenia. Journal of Abnormal and Social Psychology, 1955, 50, 45-52.

Freeman, T., Cameron, J. L., & McGhie, A. Chronic schizophrenia. New York: International Universities Press, 1958.

Freud, Anna. The ego and mechanisms of defense. New York: International Universities Press, 1946.

Friedman, I. Phenomenal, ideal, and projected conceptions of the self. Journal of Abnormal and Social Psychology, 1955, 51, 611-615.

Fromm-Reichmann, Frieda. Notes on the development of treatment of schizophrenics by psychoanalytic psychotheraphy. Psychiatry, 1948, 2, 263-273.

Gerard, D. L., & Siegel, J. The family background of schizophrenia. Psychiatric Quarterly, 1950, 24, 46-53.

Guller, I. B. Stability of self-concept in schizophrenia. Journal of Abnormal and Psychology, 1966, 71, 275-279.

Haley, J. Strategies of psychotherapy. New York: Grune & Stratton, 1963.

Hall, G. C. Conceptual attainment in schizophrenics and non-psychotics as a function of task structure. Journal of Psychology, 1962, 53, 3-13.

Hartmann, H. Comments of the psychoanalytic theory of the ego. In R. Eissler, A. Freud, H. Hartmann, and M. Kris (Eds.), The psychoanalytic study of the child. New York: International Universities Press, 1950, 5. Pp. 74-96.

Havener, P. H., & Izard, C. E. Unrealistic self-enchancement in paranoid schizophrenics. Journal of Consulting Psychology, 1962, 26, 65-68.

Healy, W., & Bronner, A. New light on delinquency and its treatment. New Haven: Yale University Press, 1936.

Hefland, I. Role taking in schizophrenia. Journal of Consulting Psychology, 1956, 20, 37-41.

Jackson, W., & Carr, A. C. Empathic ability in normals and schizophrenics. Journal of Abnormal and Social Psychology, 1955, 51, 79-82.

Jacobson, E. On psychotic identifications. International Journal of Psychoanalysis, 1954, 35, 102.

Kamano, D. K. Self-satisfaction and psychological adjustment in schizophrenics. Journal of Consulting Psychology, 1961, 25, 492-496.

Krech, D., Crutchfield, R. S., & Ballachey, E. L. Individual in society. New York: McGraw-Hill, 1962.

Lefeber, J. A. The delinquent's self-concept. Dissertation Abstracts, 1965, 26, Part 2, Nos. 4-6, 2052-2053.

Lehmann, H. E. Problems of evaluation and classification in psychopharmacology, psychopharmacological methods. In Proceedings of a symposium on the effects of psychotropic drugs on higher nervous activity. New York: Pergamon Press, 1963.

Levitt, E. E. The psychology of anxiety. New York: Bobbs-Merrill Co., 1967.

Lunney, G. H. A monte carlo investigation of basic analysis of variance models when the dependent variable is a Bernoulli variable. Dissertation Abstracts, 1969, 29, Part 3, No. 7, Sect. B, 2671-2672.

Manasse, G. Self-regard as a function of environmental demands in chronic schizophrenics. Journal of Abnormal Psychology, 1965, 70, 210-213.

Mark, J. C. The attitudes of the mothers of male schizophrenics toward child behavior. Journal of Abnormal and Social Psychology, 1953, 48, 185-189.

Mead, G. H. Mind, self and society. Chicago: University of Chicago Press, 1934.

McQuitty, L. L. A measure of personality integration in relation to the concept of self. Journal of Personality, 1950, 18, 461-482.

McReynolds, P. Reactions to novel and familiar stimuli as a function of schizophrenic withdrawal. Perceptual and Motor Skills, 1963, 16, 847-850.

McReynolds, P., Collins, B., & Acker, M. Delusional thinking and cognitive organization in schizophrenia. Journal of Abnormal and Social Psychology, 1964, 69, 210-212.

Nickols, J. Self-image ratings of normal and disturbed subjects. Journal of Health and Human Behavior, 1966, 7, 28-36.

Piety, K. R. The role of defense in reporting on the self-concept. Dissertation Abstracts, 1958, 18, Part 2, Nos. 5-7, 1869-1870.

Rabin, A. I., & King, G. F. Psychological studies. In L. Bellak (Ed.), Schizophrenia: A review of the syndrome. New York: Logos Press, 1958. Pp. 216-278.

Rogers, C. R., & Rosalind F. Dymond (Eds.) Psychotherapy and personality change. Chicago: University of Chicago Press, 1954.

Ruesch, J. Therapeutic communication. New York: Norton & Co., 1961.

Runyon, E. L. The relationship between the self-concept and adaptational maneuvers in white and negro college students. Unpublished doctoral dissertation, Western Reserve University, 1958.

Sarwer-Forrer, G. J., & Ogle, W. Psychosis and enhanced anxiety produced by Reserpine and Chlorpromazine. Canadian Psychiatric Association Journal, 1956, 74, 526-532.

Schilder, P. The image and appearance of the human body. New York: International Universities Press, 1951.

Searles, H. F. Schizophrenic communication. In H. F. Searles, Collected papers on schizophrenia and related subjects. London: Hogarth Press, 1965. Pp. 381-428.

Sears, R. R. Experimental studies of projection: Attribution of traits. Journal of Social Psychology, 1936, 7, 151-163.

Senf, Rita, Huston, P. E., & Cohen, B. D. Thinking deficit in schizophrenia and changes with Amytal. Journal of Abnormal and Social Psychology, 1955, 50, 383-387.

Shakow, D. Segmental set: A theory of the formal psychological deficit in schizophrenia. Archives of General Psychiatry, 1962, 6, 1-17.

Sheerer, E. T. An analysis of the relationship between acceptance of an respect for self and acceptance of and respect for others in ten counseling cases. Journal of Consulting Psychology, 1949, 13, 169-175.

Siegel, E. L. Genetic parallels of perceptual structuralization in paranoid schizophrenia: An analysis by means of the Rorschach test. Journal of Projective Techniques, 1953, 17, 151-161.

Snygg, D., & Combs, A. Individual behavior. New York: Harper & Row, 1948.

Spence, Janet T. Patterns of performance on the WAIS in schizophrenic brain-damaged and normal adults. Psychological Report, 1963, 13, 431-436.

Stock, Dorothy. An investigation into the interrelations between the self-concept and feelings directed toward other persons and groups. Journal of Consulting Psychology, 1949, 13, 176-180.

Sullivan, H. S. The interpersonal theory of psychiatry. New York: Norton & Co., 1953.

Sundberg, N. D. The acceptability of "fake" versus "bona fide" personality test interpretations. Journal of Abnormal and Social Psychology, 1955, 50, 145-147.

Szalita-Pemow, A. B. Further remarks on the pathogenesis and treatment of schizophrenia. Psychiatry, 1953, 15, 143.

Thorndike, E. L., & Lorge, I. The teacher's word book of 30,000 words. New York: Columbia University, 1944.

Tietze, T. A study of mothers of schizophrenic patients. Psychiatry, 1949, 12, 55-65.

Vedder, C. B. The juvenile offender: Perspective and readings. New York: Doubleday, 1954.

Weckowicz, T. E., & Blewett, D. B. Size constancy and abstract thinking in schizophrenic patients. Journal of Mental Science, 1959, 105, 909.

Will, O. A., Jr. Psychotherapy in reference to the schizophrenic reaction. In M. I. Stein (Ed.), Contemporary psychotherapies. New York: Free Press of Glencoe, 1961. Pp. 128-156.

Winder, C. L. Some psychological studies of schizophrenics. In Don D. Jackson (Ed.), The etiology of schizophrenia. New York: Basic Books, 1960. Pp. 191-248.

Winer, B. J. Statistical principles in experimental design. New York: McGraw-Hill, 1962.

Wolman, B. Schizophrenia and related disorders. In B. Wolman (Ed.), Handbook of clinical psychology. New York: McGraw-Hill, 1965. Pp. 976-1029.

Wynne, L., & Singer, Margaret. Thought disorders and family relations of schizophrenics: A classification of forms of thinking. Archives of General Psychiatry, 1963, 9, 191-206.

Zax, M., & Stricker, G. Patterns of psychopathology: Case studies of behavioral dysfunction. New York: Macmillan Co., 1963.

APPENDICES

APPENDIX A.--The Counseling Form of the Tennessee Self-

	Physical Self	Moral-Ethical Self	Personal Self
IDENTITY: What he is.	1. I have a healthy body. 2. I like to look nice and neat all the time. 3. I am an attractive person. 4. I am full of aches and pains. 5. I consider myself a sloppy person. 6. I am a sick person.	19. I am a decent sort of person. 20. I am a religious person. 21. I am an honest person. 22. I am a moral failure. 23. I am a bad person. 24. I am a morally weak person.	37. I am a cheerful person. 38. I have a lot of self-control. 39. I am a calm and easy going person. 40. I am a hateful person. 41. I am a nobody. 42. I am losing my mind.
SELF-SATISFACTION: How he accepts himself.	7. I am neither too fat nor too thin. 8. I am neither too tall or too short. 9. I like my looks just the way they are. 10. I don't feel as well as I should. 11. I would like to change some parts of my body. 12. I should have more sex appeal.	25. I am satisfied with my moral behavior. 26. I am as religious as I want to be. 27. I am satisfied with my relation to God. 28. I wish I could be more trustworthy. 29. I ought to go to church more. 30. I shouldn't tell so many lies.	43. I am satisfied to be just what I am. 44. I am as smart as I want to be. 45. I am just as nice as I should be. 46. I am not the person I would like to be. 47. I dispise myself. 48. I wish I didn't give up as easily as I do.
BEHAVIOR: How he acts.	13. I take care of myself physically. 14. I feel good most of the time. 15. I try to be careful about my appearance. 16. I do poorly in sports and games. 17. I often act like I am "all thumbs." 18. I am a poor sleeper.	31. I am true to my religion in my everyday life. 32. I do what is right most of the time. 33. I try to change when I know I'm doing things that are wrong. 34. I sometimes use unfair means to get ahead. 35. I sometimes do very bad things. 36. I have trouble doing the things that are right.	49. I can always take care of myself in any situation. 50. I solve my problems quite easily. 51. I take the blame for things without getting mad. 52. I change my mind a lot. 53. I do things without thinking about them first. 54. I try to run away from my problems.
	View of his body, health, physical appearance, skills, and sexuality.	Moral worth, relationship to God, feelings of being a "good" or bad" person, and satisfaction with one's religion or lack of it.	Sense of personal worth, feeling of adequacy as a person, and evaluation of personality apart from body or relationships to others.

ADDITIONAL SCORES:

Positive Scores: (a) "This is what I am."
(b) "This is how I feel about myself."
(c) "This is what I do."

Total Positive Scores = Overall level of self-esteem

High = Tend to like self, feel worthwhile, have confidence and act accordingly.
Low = Feel doubtful of worth, view self as undesirable, feel anxious, depressed, unhappy, and lack faith in self.

Low Self-criticism + High Positive Score = Defensive distortions.

Concept Scale (How the Individual Perceives Himself).

Family Self	Social Self	Self-Criticism
55. I have a family that would always help me in any kind of trouble. 56. I am an important person to my friends and family. 57. I am a member of a happy family. 58. I am not loved by my family. 59. My friends have no confidence in me. 60. I feel that my family doesn't trust me.	73. I am a friendly person. 74. I am popular with women. 75. I am popular with men. 76. I am mad at the whole world. 77. I am not interested in what other people do. 78. I am hard to be friendly with.	91. I do not always tell the truth. 92. Once in a while I think of things too bad to talk about. 93. I get angry sometimes. 94. Sometimes, when I am not feeling well I get cross.
61. I am satisfied with my family relationships. 62. I treat my parents as well as I should. 63. I understand my family as well as I should. 64. I am too sensitive to things my family say. 65. I should trust my family more. 66. I should love my family more.	79. I am as social as I want to be. 80. I am satisfied with the way I treat other people. 81. I try to please others, but I don't overdo it. 82. I should be more polite to others. 83. I am no good at all from a social standpoint. 84. I ought to get along better with other people.	95. I do not like everyone I know. 96. I gossip a little at times. 97. Once in a while I laugh at a dirty joke. 98. At times I feel like swearing.
67. I try to play fair with my family and friends. 68. I do my share of work at home. 69. I take a real interest in my family. 70. I quarrel with my family. 71. I give in to my parents. 72. I do not act like my family thinks I should.	85. I try to understand the other fellow's point-of-view. 86. I see good points in all the people I meet. 87. I get along well with other people. 88. I do not feel at ease with other people. 89. I do not forgive others easily. 90. I find it hard to talk with strangers.	99. I would rather win than lose in a game. 100. Once in a while I put off until tomorrow what I ought to do today.
Feelings of adequacy, worth, and value as a family member.	Sense of adequacy and worth in social interaction.	High = A normal, healthy openness and capacity for self-criticism. Low = Defensiveness, denial, and a deliberate effort to present a favorable picture.

Variability Scores: Amount of inconsistency from one area of self-perception to another.

High = Lack of unity or integration.
Low = The well integrated person usually scores below the mean.

Distribution Score: Manner in which a person distributes his answers across the five available choices in responding to the items.

High = Certain about self
Low = Uncertain about self and defensive.
Extreme = Psychologically disturbed.

APPENDIX B_1.--A Self-Concept Profile, Derived from the Tennessee Self-Concept Scale, Which Is a Characteristic of a Subject with No Diagnosed Psychopathology.

I am healthy and neat, but am not sure if I am good looking.

I am satisfied with my health and sex appeal, but would like to improve the way I look.

I take care of myself, am careful about my looks, am good in sports, am a good sleeper, and am confident.

I am a fairly decent, religious, and honest person. I am a good and moral person.

I accept my moral behavior, but would like to be more religious.

Sometimes I act unfair, but I usually act right and try to change when I know I am doing wrong.

I am not very cheerful, but I am fairly self-controlled and calm. I am not hateful, and I feel important and mentally healthy.

I would like to be smarter and nicer, but like myself as I am.

I take care of myself in most situations by facing and solving my problems. I think before acting. I get angry when I am blamed for anything.

I am an important, loved, and trusted member of a happy family.

I feel I could improve upon my treatment and understanding of my family, but am satisfied that I love and trust them.

I am fair with my family and am interested in them. I give in too much and sometimes fail to act as they think I should.

I am friendly and popular, although I am not very interested in people.

I would like to be more friendly. I am polite and get along well with others.

I am understanding, forgiving, and easy to talk with, although I do not usually see the good things in others and am not at ease with people.

I am able to criticize myself. I feel worthwhile as a person, am confident, and like myself.

APPENDIX B_2.--A Self-Concept Profile, Derived From the Tennessee Self-Concept Scale, Which Is Characteristic of a Paranoid Schizophrenic Subject.

I am fairly neat and good looking, but am full of aches and pains and am not very healthy.

I do not feel well and would like to have more sex appeal. I do not like my body.

I try to take care of my body. I am not good in sports and games, and don't feel well or sleep very good.

I am not a very decent or honest person, and am not morally strong or good.

I would like to be more trustworthy, but am fairly satisfied with my morals and religion.

I act unfair and am not true to my religion in everyday life. I usually do right and try to change when I know I am doing wrong.

I am not cheerful, not self-controlled, and feel I am not important.

I would like to be smarter, nicer, and like myself better.

I have trouble taking care of myself in many situations, get angry when I am blamed for anything, and change my mind often. I try to face my problems, but don't solve them easily.

I am an important member of my family, even though it is not a very happy family.

I am very dissatisfied with the way I behave towards my family. I feel I should understand and treat my family better, and show more love and trust.

I am not very friendly or popular, and not interested in people.

I should be more polite, pleasing, and should try to get along better with people.

I am at ease with people and try to understand them, although I do not see their good points or get along well with them.

I do not criticize myself very often. I lack faith in myself, doubt my own worth as a person, and feel depressed and unhappy.

APPENDIX B_3.--A Self-Concept Profile, Derived From the Tennessee Self-Concept Scale, Which Is Characteristic of a Chronic Undifferentiated Schizophrenic Subject.

I am healthy, neat, and good looking.

I would like to have more sex appeal.

I take care of my body but not my looks. I am good in sports and games and seldom act like I am "all thumbs".

I am not religious or very honest.

I would like to be more religious and improve my relations to God. I feel I should be more trustworthy.

I am not true to my religion in everyday life, although I do what is right. I am unfair at times.

I am cheerful, calm, and self-controlled. I am not a very important person. I am not hateful and am mentally healthy.

I would like to be smarter, nicer, and not give up so easily.

I get angry when blamed for anything, change my mind often, and act without thinking. I can take care of myself in most situations by facing and solving my problems.

I am not a member of a happy and loving family.

I should trust my family more.

I am not fair and am not interested in my family.

I am friendly and popular.

I do not try to please others, am not polite, and feel I should get along better with people.

I understand the point of view of other people but have a hard time seeing their good points. It is hard for me to talk with strangers.

I am able to criticize myself. I lack faith in myself, doubt my own worth as a person, and feel depressed, anxious, and unhappy.

APPENDIX C_1.--A Stereotyped Profile Description of a Person with No Diagnosed Psychopathology.

I do not always meet stressful situations with proper and wise action.

I sometimes do not have confidence and courage and am afraid.

Occasionally I lack the desire to reach my goals.

Every so often I do not feel comfortable with myself or other people, and cannot meet the demands of life.

Now and then I am unable to prevent my troubles and problems from upsetting me.

At times I am unable to enjoy myself, my efficiency is lowered, and I may become very worried, bitter, sad, or nervous.

On occasion my problems affect my relationships with my family, my work, and society in general.

Sometimes I feel I am a poor sex partner.

Occasionally I have difficulty concentrating on my work.

Every so often I am bold.

Now and then I feel dependent upon other people.

I do not always do my best.

APPENDIX C_2.--A Stereotyped Profile Description of a Paranoid Schizophrenic.

I feel it pays to be careful around other people.

Sometimes I am accused of wicked actions or thoughts.

Occasionally people threaten to harm me.

Every so often I feel I have been punished without cause.

Now and then it seems as if evil spirits possess me.

At times powers or forces around me have control over my actions.

On occasion I cannot control laughing or crying.

Sometimes I feel I am being talked about, watched, followed, made to do certain things, or am being plotted against.

Occasionally it seems to me that I have almost magic feelings of great power or importance.

Every so often my attitude is hostile and bold.

Now and then I am stubborn, suspicious, and sensitive.

At times my body feels strange.

On occasion I feel that things, and people around me, have changed and somehow become different.

Even when I am with people I sometimes feel lonely.

Occasionally I get a raw deal from life.

APPENDIX C_3.--A Stereotyped Profile Description of a Chronic Undifferentiated Schizophrenic.

Sometimes talking with other people is a great effort, and occasionally I feel more comfortable by myself.

Every so often I feel I am not loved, am rejected, and unworthy, and worry about what other people think of me.

Now and then I think of things too bad to talk about, or dream about things that are best kept to myself.

At times I have had days or weeks when I could not take care of things because I could not "get along".

On occasion I do not seem to care what happens to me.

Sometimes I feel as if things are not real and I feel I may be losing my mind.

Occasionally I say things I do not feel, and feel as though I were someone else.

Every so often I do things without knowing later what I had done.

Now and then I am influenced by mysterious powers.

At times I have had a strong urge to hurt or shock other people.

On occasion I am worried about sex matters.

Sometimes things in general do not mean much to me.

Occasionally I feel I am not real.

Every so often I wish I were dead.

Now and then I laugh when other people do not laugh, and do not care when other people are sad.

APPENDIX D--Pilot Study

Diagnostic Categories

Stereotyped profile choice	No Diagnosed Psychopathology (NSC)	Paranoid Schizophrenic (PaSc)	Chronic Undifferentiated Schizophrenic (Und)	
Successful	6**	5*	2	13
Non-Successful	1	2	5	8
	7	7	7	21

*p < .05 **p < .01

Schizophrenics
(PaSc and Und combined)

Stereotyped profile choice	No Medication	Medication	
Successful	5*	2	7
Non-Successful	2	5	7
	7	7	14

*p < .05

APPENDIX E.--Summary of Analysis of Variance of the Total Positive Score on the Tennessee Self-Concept Scale for Non-Schizophrenic, Paranoid Schizophrenic, and Chronic Undifferentiated Schizophrenic Subjects.

Source	SS	df	MS	F	p
Diagnostic Category	2288872.266	2	1144436.133	29.033	< .01
Error	3429362.333	87	39417.957		
Total	5718234.600	89			