THE GENERALITY OF SELF CONSTRUCTS

DISSERTATION

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By

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CHAPTER ONE

INTRODUCTION

Foreword

This study is derived from George A. Kelly's recently formulated theory known as the psychology of personal constructs (28).

Although this study is framed within a personal construct approach to personality, it poses questions of interest to psychologists performing diagnostic and therapeutic functions, regardless of orientation.

When a psychologist conducts an examination in a clinical setting, the assumption is made either explicitly or implicitly that the data with which he deals are not specific to the examining room but appear in other non-test behaviors. Moreover, the psychologist assumes that the data which he "lifts" from one test are relatable at some level of abstraction to the data provided by another test. That is, if personality has some stability and consistency, then two protocols from a given subject should be both perceptibly similar and perceptibly different from the protocols of other subjects. The particular data which are abstracted are, of course, dependent upon the theoretical
orientation of the psychologist. Thus one psychologist might structure the raw data in terms of extroversion and introversion; another might look for habit hierarchies; and still another might seek need-press interrelationships. But despite the orientation of the psychologist, his basic question is not how well the test measures "basic" personality but, rather, how well his abstraction enables him to predict the subject's responses in an array of situations.

The data with which the psychology of personal constructs is concerned are the ways in which people abstract both likenesses and differences from the world of events in which they are involved. These cognitive differentiations are called constructs, and they are postulated to be the vehicles with which an individual anticipates events, including his behavior and the behavior of others.

Suppose we grant that personal constructs provide the psychologist with important information about the way in which people structure and respond to their interpersonal world. We may then ask the question, "Do constructs apply only to a few people and situations, or is their range of applicability broad enough to enable the psychologist to understand how his subject will behave in many different situations and with many different people?"

The general question we have asked is too broad for a
single experiment to answer with an unequivocal yes or no. A series of well-controlled experiments dealing with the applicability of personal constructs to specific situations will eventually indicate whether personal constructs are general enough to make a study of them worthwhile in the attempt to understand and predict behavior.

This investigation, then, is one of those specific studies. At the most general level the problem is whether the data which are elicited on a self-characterization are likely to appear in another test situation, namely a form of Kelly's Role Construct Repertory Test (referred to hereafter as the RCRT).

Statement of the Problem

In asking the question of whether constructs in a self-characterization have sufficient generality to appear in situations other than those which elicited them, a number of more specific questions arise. These are the additional questions which this study poses and seeks to answer. Do a person's self-conceptualizations apply exclusively to him or do they have a greater range of generality, applying to many people with whom he interacts or has interacted? Is the range of applicability of a person's self constructs greater than the range of applicability of the constructs which he applies to someone else? What is the relationship between a person's self constructs and his
constructs of his parents?

Implications of this Research

There are several ways in which this experiment contributes to the body of psychological knowledge. First of all the research attempts to shed light on the relationship between a person's perception of himself and others. Research in this area is clearly related to some important questions currently being asked in self theory.

Secondly, a technique is described for comparing constructs from two different tests. This technique is an extension of Kelly's non-parametric factorization of personal constructs and has the advantage of measuring intra-individual consistency in perceptual patterns without dealing directly with the words which an individual uses in describing his perceptions. This method is not limited to the present study and may find usefulness in studies which attempt to measure the relationship between constructs from a behavior sample and constructs from a Role Construct Repertory Test. The only studies which have attempted to do this in the past (20, 61) used a matching technique and were faced with the difficulty which is inherent in the method—that of controlling irrelevant variables.

Thirdly, conclusions may be drawn about the clinical utility of the self characterization in as much as a basis
is provided for estimating the generality of the constructs elicited.

Finally, one of the criteria for the usefulness of a theory is its ability to generate testable hypotheses. Since the hypotheses formulated in this study prove to be testable and are derived from current personality theory, this criterion is met.
CHAPTER TWO

HISTORICAL REVIEW

Introduction

It is axiomatic in psychology that behavior is not composed of a series of discrete unrelated events but is organized so that prediction from one sample of behavior to another is possible. In a broad sense that is what we mean by the concept of generality. Although every psychological theory may be compared along a dimension of generality-specificity, the particular conception of what is general varies from theory to theory. Hence one approach to a review of the literature would be to discuss generality at all levels of abstraction from muscle twitch, habit strength, reflex reserve, and cognitive map, on the one hand, to attitude, life space, neophenomenological self, character structure, and style of life on the other. In short, the problem might be to discuss the sum of psychological theorizing in terms of generality and specificity. Such an ambitious approach has already been successfully tackled by Hamilton (20). Rather than duplicate her work, the present writer will develop more fully the treatment of generality in those theories which deal explicitly with the conception of the self.
In this particular study the data which are abstracted from behavior are personal constructs and the major hypothesis proposes that such an abstraction is useful because it has a sufficient breadth of application to make prediction possible.

Specifically, we propose that a construct with which a person appears to anchor important aspects of his identity has a sufficient degree of generality to occur when that person is called upon to compare and contrast simultaneously the important features of many other significant people who populate his world. Secondly, we propose that the construct dimensions which a person applies to others are those dimensions along which he plots his own identity, that, in short, one's identity is rooted in his perceived similarities to and differences from others.

In the following pages we will emphasize the theories and studies which provide an historical rationale for the hypotheses proposed in this study.

**Historical Background**

Around the turn of the century virtually all of psychological theorizing dealt in one way or another with the concept of the self. James (25), McDougall (37), Titchener (67), and Baldwin (6) were just a few of the important thinkers who felt that such a concept was indispensable. Despite their agreement on the importance of the notion
there was almost no unanimity of opinion on the nature, development, or function of the self.

James, for example, regarded the phenomena of mental life as the data of psychology, and the focus of his attention was immediate felt experience. Part of an individual's stream of consciousness was said to deal with almost an unlimited number of perceived selves—the material self, many social selves, and the spiritual self, all three constituting the empirical self. The material self included the body and all possessions of the individual. The social selves of a given person corresponded in number with the individuals or groups of individuals with whom he interacted. The spiritual self was thought of as a sense of obscure activity which an individual feels as the essence or innermost nature of himself. Despite the apparent lack of unity of all of these selves, James felt that there was a continuous feeling of ownership from one moment to the next.

Titchener dealt with consciousness as revealed through trained introspection. For him the self was simply the sum total of conscious processes.

McDougall proposed a hierarchy of sentiments which he regarded as complexly organized instinctive tendencies attached by experience to objects and classes of objects. All of the tendencies were organized into a harmonious
system by the master sentiment of self-regard which constituted the basis for moral order.

The rise of behaviorism with its emphasis on objectivity and its denial of mind concepts pushed the notion of the self into the background. Nevertheless, the concept was actively used among the psychoanalytic theorists, particularly Freud (18) and Jung (27) and among such sociologically oriented thinkers as Cooley (12) and Mead (36).

It was not, however, until the appearance of Allport's book on personality (4) that renewed interest was stimulated in ego and self concepts. Since Allport, theorizing in this area has become increasingly popular, and the past decade has seen a rather huge volume of related literature.

With two major exceptions nearly all of the literature has been theoretical rather than experimental in nature. One exception is the work stimulated by the thinking of Rogers (52), Raimy (47), Snygg and Combs (63), and Lecky (30). The other exception is provided by the studies of ego-involvement (5, 50, 60, 68).

With this brief synopsis, we will now turn to a more detailed presentation of some representative self theories.

As early as 1902 Cooley in his discussion of the meaning of "I" emphasized that the self is always a social self and that the "I" of common language always has more or less distinct reference to other people as well as the
Cooley thought that the distinctive thing about the concept of "I" was its characteristic "my-feeling or sense of appropriation" and that it could not be defined by all the objects with which it is associated. He regarded the feeling of self as present at birth but modified by subsequent experience. Interestingly enough, the self, in its development became associated not only with perceptions or "personal ideas" but also with physiological sensations. Even the young infant, maintained Cooley, expresses the feeling that adults associate with "I" when he attempts to control the visible objects and people around him.

That Cooley repeatedly emphasized the notion that one has no selfhood apart from his relation to others is well-illustrated in the following quotes.

The social self is simply any idea, or system of ideas, drawn from the communicative life, that the mind cherishes as its own. Self-feeling has its chief scope within the general life, not outside of it (12:179).

If a thing has no relation to others of which one is conscious he is unlikely to think of it at all, and if he does not think of it he cannot, it seems to me, regard it as emphatically his (12:181).

Like Cooley, Mead (36) believed that the self develops in a social process but, unlike Cooley, he felt that the distinguishing feature of the self lies in the capacity of the human to be an object to himself. The mechanism by which man can look back at himself in an objective manner
is found in his capacity to use language symbols. Infra-human species communicate in a gestural fashion. The gestures of one serve as cues for the behavior of others. However, this is not language communication since the symbols are not "significant." That is, an infra-human animal is not able to interpret the meaning of his own gestures because he cannot label the response which it elicits in another, and he cannot take that response into account in organizing his future behavior. Man, on the other hand, first hears himself and then not only responds to himself as if he were an object but also uses his response to guide his own behavior. This is the essence of role-taking and is the foundation for all social relationships.

As Mead states it:

The individual experiences himself, as such, not directly, but only indirectly, from the particular standpoints of the other individual members of the same social group, or from the generalized standpoint of the social group as a whole to which he belongs. For he enters his own experience as a self or individual, not directly or immediately, not by becoming a subject to himself, but only in so far as he first becomes an object to himself just as other individuals are objects to him or in his experience; and he becomes an object to himself only by taking the attitudes of other individuals toward himself . . . (36:138).

Mead distinguishes two stages in the development of the self: the stage of play and the stage of game. In play the child assumes the role of individual persons and animals with whom he has come into contact. This stage is
also exemplified by primitive people who play the role of their gods and heroes according to certain rites. In the game the child assumes the attitudes of all of the other participants rather than the attitudes of certain specific ones. The child develops a unitary organization of others' attitudes and these control his own behavior. This generalized attitude of role-taking is what Mead called the "generalized other."

In order to explain and systematize behavior Freud postulated the existence of two hypothetical entities—the ego and the id (18). The concept of generality, however, was handled through the structure and functions of the ego.

Freud's general formulation was that the id is the uncontrolled and undisciplined division of personality which is the source of all instinctual energy. These instincts seek gratification so that before the infant is affected by social pressures, his behavior is completely directed toward the immediate reduction of unpleasant tensions (the pleasure principle). Gradually, the asocial id forces meet environmental obstacles and must be curbed or modified so that they are expressed in socially acceptable forms. The ego is that portion of the id which has adapted to the pressures of the external world. It has instinctual tendencies of its own but is affected by the perceptions of the outside world and by perceptions of the id demands.
Since it is able to differentiate between these two kinds of demands, it can inhibit immediate pleasure (the reality principle) or it can allow expression of id impulses in accordance with external reality.

A part of the ego—the superego—is the result of the process of internalizing social pressures so that they become self-demands. Although part of the superego is learned, it is also partially unconscious. It is said to arise as a result of the repression of the Oedipus complex.

The ego often encounters difficulty in mediating between the id forces and external reality and must resort to various mechanisms in order to maintain psychological integration. The particular way in which the ego adjusts instinctual demands to the external world becomes the fundamental trait in any personality.

While Freud recognized that social demands and instinctual impulses caused conflict, he nevertheless regarded the instinctual core of personality as inherited, the psychosexual stages of development as inevitable, and the Oedipus complex as universal. His lack of recognition of cultural variations and blindness to the impact of continually-changing cultural processes set him distinctly apart from Cooley and Mead, on the one hand, and more recent proponents of neo-Freudianism, on the other.

Both Horney (23) and Fromm (19) have been extremely
sensitive to the role of cultural factors in the development of personality, but both have clung to a Freudian interpretation of dynamics. Both see such conceptions as the superego, the ego, and the Oedipus complex as the result of interaction between individuals and particular social structures rather than as biologically given entities. Nevertheless, each has posited inherent human qualities to account for the generality of behavior. Fromm proposes two universal motivational mechanisms—the striving for justice and the striving for truth. Horney, like Freud, sees the striving away from anxiety toward safety and satisfaction as man's basic motivation.

Adler's Individual Psychology (1, 2), an early modification of Freudian theory, offered a new way of conceptualizing generality. Adler rejected Freud's emphasis on sexual instincts and the Oedipus complex but, like Freud, postulated a universal explanation of behavior—the "will to power."

According to Adler, the experiences of the newborn child are ones of weakness, inadequacy, and frustration. Adults around him are able to satisfy their wants more completely. They are larger and more self-directed while he is helplessly dependent on their tenderness or whim for the satisfaction of his needs. As a result of these feelings of inferiority, the infant develops an intense longing to
control his own activity and to free himself from the domination of others. The various compensating techniques which he gradually develops in order to overcome his real or imagined inferiority crystallize by the fifth year into a consistent style of life. Some children capitalize on their dependency and learn to manipulate adults. Others attempt to emulate adults to gain power and status. But whatever technique is adopted, it becomes more and more generalized.

The style of life exerts a selective effect on experience but once established is very resistant to change by experience. If a person gains insights through therapy or is forced to adjust to an abrupt change of conditions, his life pattern may change. However, this is rare. Usually a person who makes invalid inferences about the demands of the world seeks corroborative evidence and hence is able to maintain his life pattern. When a faulty life pattern clashes with reality, as it must sooner or later, the person does not change his "law of movement" but restricts himself to a more limited field of action where the things that threatened him are excluded.

Running through this description of Adlerian psychology is the essential postulate of continuity of purpose. The power objective is the goal of every specific activity.

The essence of Sullivan's interpersonal theory of
behavior (65) is the conception that the individual is an embodiment of his social-cultural heritage and that all of his behavior has a direct or indirect relationship to others. Complete isolation is equivalent to death.

Sullivan, somewhat similarly to Adler, postulates that the infant is born with a capacity to develop a power motive. One gets the impression that this drive is not innately given like instincts or libido but is conditioned as a result of the infant's unavoidable feeling of powerlessness and consequent development of behaviors calculated to protect him from feelings of insecurity and helplessness. At any rate, the degree to which the power motive is satisfied or dissatisfied has a fundamental influence on the development of personality.

Sullivan describes three modes of experiencing involved in ego development. During the first year of life the infant has no ego or sense of self-awareness. This is the prototaxic mode. The infant does not divide his world into "parts" or elements. Instead, he experiences an undifferentiated wholeness. Everything is of one piece with no definite temporal or spatial limits with nothing he can understand. Although time distinctions and serial connections are acquired later, the infant nevertheless vaguely "prehends" before and after states of being and also gets a vague image of the "mothering one."

Gradually, as maturation proceeds, the infant passes
into the parataxic mode in which he begins to break experience into parts and is able to discriminate himself from the rest of the world. However, experiences are perceived as concomitant and are not connected in a logical fashion.

As the child gets older he learns the "coconsensually validated" meaning of language. He becomes aware of patterns of relationships and makes complex social differentiations. When this occurs, he has acquired the syntaxic mode of experience.

During the prototaxic mode the child, through an empathic emotional process, differentiates the "mothering one" into a "Good Mother" and a "Bad Mother." The Good Mother contributes to his feeling of well-being or euphoria. He receives an impression of the Bad Mother when she disturbs him in some manner.

The empathic relationship between mother and infant is strongest between the ages of six and twenty-seven months. During this time anxiety, or a loss of euphoria, is experienced via a process of empathy and arises from the rewards and punishments involved in the socialization of the child. Disapproval, with its consequent anxiety, causes the child to learn to discriminate those behaviors that elicit disapproval and those that elicit approval.

Three personifications of "me" gradually arise. The "good me" is an organization of experiences of approval; the "bad me" is an organization of experiences of
disapproval; the "not me" refers to parataxic experiences like horror and loathing. The self is composed of the "good me" and the "bad me."

As Sullivan states it:

It (the self-dynamism) has a tendency to focus attention on performances with the significant other person which get approbation or disfavor. And that peculiarity, closely connected with anxiety, persists thenceforth through life. It comes about that the self, that to which we refer when we say "I" is the only thing which has alertness, which notices what goes on, and, needless to say, notices what goes on in its own field. The rest of the personality gets along outside awareness. Its impulses, its performances are not noted (65:9-10).

According to Sullivan, the pattern of parental approval or disapproval is sufficiently consistent to give the self-system a form and direction which it will maintain throughout life and in every interpersonal situation. Experiences must conform to the characteristics of the self. If not, they are "selectively inattended." A person who regards himself as hateful will misinterpret friendliness from others. It is more consistent to his picture of self to see others as hateful, too.

Hence, in Sullivan the concept of generality tied to the self-system. It is interesting to note, too, that Sullivan's theory is remarkably similar to the more recent concepts of self-consistency and can provide an adequate rationale for some of the studies currently being done by the Rogerian group (7, 38, 59, 64).
In 1943 Allport (5) commented that the rise of positivism and the psychologist's eagerness to free himself from theological explanation led to the abandonment of the concepts of self or ego. Unfortunately, it was not only these concepts that fall into disrepute but also a wide range of problems associated with them; namely, the attempts to explain the "coherence, unity, and purposiveness" of mental life. Allport gave psychoanalysis credit for preserving the ego and for focusing attention on problems disregarded by positivism.

By 1943 the self or ego was receiving more and more attention, and Allport listed eight common meanings attached to the term: "(1) as knower, (2) as object of knowledge, (3) as primordial selfishness, (4) as dominator, (5) as a passive organizer and rationalizer, (6) as a fighter for ends, (7) as one segregated behavioral system among others, (8) as subjective patterning of cultural values" (5:459).

Allport cited experimental evidence which suggested that several if not all of the capacities might be embraced by an all-inclusive theory of the ego. He found, for example, that in the field of judgment, ego-involvement results in distortion of physical stimuli. Memory studies suggest that retention is superior when there is ego-involvement, and optimum intellectual performance is a
function of ego-involvement, etc. In short, Allport con­
cluded that when conditions are favorable for a total
participation of the self in all of the above senses, then
there is consistency and unity to personality. When there
is no ego-involvement, then there is specificity of
behavior.

The literature on the problem of ego-involvement is
well-summarized in Sherif and Cantril (60). Because this
literature is sizable and not intimately related to the
current research, we will content ourselves with a summary
of Lewin's approach to ego-involvement.

Lewin's frame of reference is the immediate psycho­
logical field—the cross section at any given moment of the
totality of facts which determine the behavior of the
individual (31, 32, 33). In characterizing the psycholog­
ical field Lewin takes into account "such specific items
as particular goals, stimuli, needs, social relations, as
well as more general characteristics of the field as the
atmosphere (for instance, the friendly, tense or hostile
atmosphere) or the amount of freedom" (33:793).

Force is the construct used to account for the motiva­
tional aspects of behavior. No assumptions are made about
driving energies; the operation of force is inferred by the
presence of tensions or by movements toward and away from
objects. Goals acquire positive or negative valences for
the individual depending on whether they attract or repel. Behavior is seen as the resultant of forces operating on the individual at any given moment.

The concept of tension is not anchored only in muscular and visceral reactions. Instead, Lewin speaks of perceptual-cognitive-motor regions which act as vehicles for inter-personal need systems. Needs have the character of organizing behavior and exist in hierarchical arrangement. Two or more needs can be in communication so that tension in one system occurs in the other. This makes substitute activity possible. That is, when action which would normally satisfy one need is impossible, another kind of action may discharge the tension. Communication between need systems is dependent on the cognitive similarity of the activities, on the nature of the situation, and on the developmental state of the person.

Thus, generality in Lewin's theory may be handled in terms of needs in the sense that a need is theoretically capable of being satisfied by many behaviors.

In stimulus-response theories, rewards and punishments are external and tangible. Lewin defines goals phenomenally. Consequently, it is more appropriate for him to think of goal-activity as successful or unsuccessful. Here, the companion concepts of ego-involvement and level of aspiration play an important part. Individuals tend to set up momentary goals within a restricted range of activities
in which they are ego-involved, and it is only within this range of personally-meaningful activities that success and failure are possible.

Lewin, like Koffka (29), regards the ego as a sub-system within the behavioral field with its own subareas of tensions, needs, etc. Much behavior occurs with no reference to the ego, but many kinds of experimental results—like those pertaining to success or failure—cannot be explained except by referring to the tensions produced by involvement of the ego.

Phenomenological Self Concept Theory and Research

Rogers' first formulation of the process of non-directive therapy (51) was influenced considerably by his basic faith in self-determination and the democratic process and by the thinking of Freud (18), Rank (49), and Taft (66). Rogers' concept of growth potential was but little more than another term for Rank's "constructive will" and Taft's "principle of growth." His therapeutic aim was to provide an atmosphere in which the growth potential could be released. While his atmosphere was different in many respects from that provided by Freud, Rogers' conception of the release of a spontaneous force within the individual was more than faintly reminiscent of Freudian catharsis.

With this unsystematized background, it was inevitable that the early studies were short on theory, concerning themselves mostly with defining the area of therapy. The
most notable exception was the study by Raimy (47) which provided a theoretical framework for subsequent thinking about the self-concept. Theory-building was greatly stimulated while research declined. Finally, in 1947 Rogers presented the first organized statement of personality theory which was heavily saturated with the thinking of Raimy (47), Lecky (30), Snugg and Combs (63), Lewin (31), and others.

Since Rogers' paper and 1951 book (53) there has been a rapidly developing body of theory-related research. In this section we will attempt to summarize the theoretical background of this renewed attention to the self, and we will cite a few representative studies which are related to similarities and differences between one's perception of himself and perception of others.

Raimy's (47, 48) often quoted pioneering study is of significance not primarily because of his results but because of his extensive theoretical formulation of the concept of self and his demonstration that this concept could lead to testable hypothesis with reference to therapy and personality change.

Raimy defined the self-concept as follows:

The self-concept is regarded as a learned perceptual system which functions as an object in the perceptual field. It is independent of any particular sense modality. More than a small "picture of one's self," it is regarded as an intricate arrange-
ment of sub-systems which themselves have sub-systems or parts . . . .

. . . By saying that we have self-concept we mean to imply that each person organizes his intra-personal sensory data in terms of the situation and past experience. The self-concept serves as a perceptual frame of reference into which new "data" related to the self are fitted (47:457-459).

In addition to the definition of the self-concept there are two other major tenets in Raimy's theory. First, "The self-concept not only influences behavior but is itself altered and restructured by behavior and unsatisfied needs." Secondly, "It may have little or no relation to external reality" (47:331).

Raimy regards the self-concept as a guide for conduct and self-understanding. Thus, it accounts for the uniformity of behavior in many different life situations. Like Mead (36), Raimy believes that the self-concept develops in a social matrix, particularly the family. It is basically a stable configuration, but it evolves throughout the life of the individual.

Raimy's study was an outgrowth of his thinking about the relation between self-approval and adjustment. His hypothesis proposed that when successful therapy takes place, there is a shift from self-disapproval to greater self-approval. He tested this hypothesis by analyzing self-references in verbatim records of fourteen counseling cases. On the basis of case record analysis and follow up data, seven of the cases were classified as successful,
five unsuccessful, and two questionable. Each case was divided into interview units and the percentage of positive, negative, and ambivalent self-references was calculated for each unit. The results clearly indicate that in counseling that was judged successful, the client progressed from a preponderance of negative and ambivalent self-references to a preponderance of positive self-references.

Bugental (9) has elaborated on Raimy's theorizing about the phenomenological self, and has proposed three postulates and five assumptions as a basis for further development of self-concept theory. These are as follows:

It is postulated (I) that behavior is lawful; (II) that behavior tends to be determined by and pertinent to the phenomenal field of the individual; and (III) that the phenomenal fields of two or more individuals have some relationship.

Assumptions are proposed to the effect that (A) the phenomenal field consists of the universe, including himself, as experienced by the individual at the moment; (B) differentiation is a fundamental process of the phenomenal field; (C) the basic differentiation is that between what is Self-referred and what is Not-Self-referred; (D) the explicit content of the verbal behavior of a subject seriously discussing himself constitutes a valid approach to the phenomenal field; and (E) the postulates and assumptions governing the "true" field are applicable to the "verbalized" field (9:145).

Like Raimy, Bugental defined the self-concept as a "learned perceptual system functioning as an object in the perceptual field" (9:134).

The basic question which he sought to answer in his study was "what lines of relationship are to be found in
the verbatim statements of a subject about which he sees as part of himself and that which he sees as not part of himself" (9:5). Bugental then attempted to answer his question in terms of the Conceptual Matrix which he defined as "a learned perceptual system functioning as an organization of the expressed perceptual field and composed of the phenomenal Self, the phenomenal Not-self, and the lines of relationship within and between them" (9:5).

The Conceptual Matrix Method which Bugental developed is a procedure for rating verbatim protocols and involves analyzing a protocol into single thought units, assigning each unit into one or more of six categories of Self, Not-Self interrelationships, and then evaluating each category assignment in terms of attitudinal tone. The last step of the method was essentially Raimy's (47) positive, negative, ambivalent, and ambiguous evaluation of counselee responses.

Bugental examined four assumptions regarding the correspondence of the Conceptual Matrix rating categories with the phenomena that were to be rated. His review of evidence led him to conclude that the Conceptual Matrix is an adequate procedure for representing expressed perceptual fields. Reliability studies warranted the conclusion that the method was stable.

Further methodological studies using therapy type-scripts indicated that the Conceptual Matrix Method "does
not readily change its balances between samples of the subject's verbatim expressions. Moreover, distinction between the profiles of one individual and those of another seem to be fairly clear-cut" (9:64).

Examination of the ratings of the protocols of five different subjects indicated that the method was applicable to varied subjects and protocols. In addition, there was evidence for the tentative conclusion that better adjusted subjects have similar profiles. In general, the method suggested potentialities for further study.

The later portion of Bugental's paper is concerned with a formal framework for Self-Concept theory. It is this portion which has the greatest relevance for the present study. In addition to the postulates and assumptions already quoted, Bugental develops a theoretical relationship between the Self-Concept and the Conceptual Matrix. In line with his first two assumptions, Bugental proposes a primary differentiation of the phenomenal field into Self and Not-Self Areas. The Self-Concept and the Conceptual Matrix are regarded as secondary differentiations of the field. The Self-Concept extends beyond the verbalized field, but the Conceptual Matrix occurs completely within it. Tertiary differentiations include the Conceptual Matrix subsystems.

There are various areas within the verbalized portion
of the Self-Concept. These are the "Self Polar," the "Self-on-Self," and the "Not-Self-on-Self" categories of the Conceptual Matrix Method. The Self Polar category represents the core of the Self-Concept or the more enduring and stabilized aspects of a person's identity. The Self-on-Self represents the more plastic and changeable aspects of the Self-Concept. The Not-Self-on-Self area is probably the avenue of contact with the environment which is of the greatest significance. It represents the perceived manner in which the Phenomenal Not-Self affects the Self... Content typical of this area would include 'People disturb me'" (9:139-140).

In addition to the three areas of the Self-Concept, there are three areas not in the Self-Concept. These are the "Not-Self Polar," the "Not-Self-on-Not-Self," and "Self-on-Not-Self."

The Not-Self Polar ("My father was a good man") is described by Bugental as follows:

This area seems to represent the individual's stable worldview, in that certain aspects of the environment are consistently regarded in the same or similar fashion. Although there is no explicit linkage of this area to the Phenomenal Self, tensions in the Not-Self area almost certainly eventually affect the Self, probably as the background for Self-perceptions (9:140).

The Not-Self-on-Not-Self ("Most people are pretty considerate of others") represents "tensions or movements not
perceived as directly affecting the Self, but potentially capable of doing so" (9:140).

The Self-on-Not-Self ("I told him the story") is separate from other areas in the Conceptual Matrix. "It is the only one in which the direction of relation is explicitly 'away from' the Self. The Self-referent of this area is closer to the 'Self as doer' than the 'Self as object.' . . ." (9:142).

In the present study we use Kelly's Role Construct Repertory Test as a measure of those portions of an individual's phenomenal field which correspond roughly to Bugental's Self and Not-Self areas.

The grid form of the test has at least one important advantage over the Conceptual Matrix Method. In using his Conceptual Matrix, Bugental was obligated to cite evidence to indicate that the Method is not an arbitrary structure imposed upon the data. The Repertory Test method, however, does not involve assumptions about the closeness of the relationship between the "true" phenomenal field and the data which it elicits. This is so because the method is an operation for the ideal definition of a construct, its data are elicited by sorting procedures which do not involve verbalization, and it is the subject who indicates the structure he place on his field rather than a rater.
The Role Construct Repertory Test is assumed to elicit the more fundamental and enduring phenomenal differentiations which give the subject his sense of identity. In this respect its data are roughly the Self Polar and Not-Self Polar areas of the Conceptual Matrix.

Whereas Bugental's entire study was devoted to exploring the relationships between Self and Not-Self areas, the present research begins with an explicit linkage between the two notions. In accordance with the psychology of personal constructs we propose that what is seen as self-referred must also be seen as not self-referred. In other words, in order for an individual to construe any event, including himself, he must see a way in which that event is like yet different from other events.

Lecky (30) takes violent issue with the mechanism of stimulus-response theories whose data, he states, point toward specificity rather than consistency of behavior. He points out that stimulus-response psychologies study the effect of each situation separately and attribute the response which occurs entirely to that situation. The variability of response which inevitably occurs is explained by the view that the stimulus situation is never twice the same. Lecky argues that despite the concept of habit which implies stability, there must be a stimulus to trigger off the habit pattern. And since stimulus-response
psychology explains the variability of behavior in terms of the stimulus, it is impossible for them to explain stability in the same terms.

Lecky's view is that the only stability in behavior is with respect to goals rather than action patterns. Stability of movement is an artifact of the experimental situation, e.g., a rat negotiating a maze has a prearranged direction imposed upon him.

... our major interest here lies in the total organization, as implied in the use of the terms such as character, style of life, or personality. It is our view that behavior is usually "in character" not because the separate acts are related to one another, but because all the acts of an individual have the goal of maintaining the same structure of values (30:10).

Lecky’s theory is extremely parsimonious and may be described in a few sentences. His basic postulate is that all behavior is directed toward the goal of preserving the individual's system of self-consistent ideas. By self-consistent ideas, Lecky does not mean ideas which are compatible from a nomothetic framework but ideas which an individual sees as self-consistent. Moreover, it is not the consistency which any idea in the system has with any other that is of primary importance; instead, the basic notion seems to be that all ideas must be consistent with the individual's conception of himself. Any idea which the individual recognizes as inconsistent with his self-concept
is immediately discarded; only self-consistent ideas are incorporated.

When an individual is confronted with an idea which is alien to his self-conception, conflict ensues. Maladjustment is the inability to restore self-consistency.

There are three general methods for dealing with inconsistency. One can injure or destroy the thing or person responsible for the inconsistency. One can "reinterpret the disturbing incident in such a manner that it can be assimilated." Or one can "alter the opinion one holds of himself."

The technique of counseling that follows from his theory is to get the patient to recognize the contradictory state of affairs in which he is involved. The goal of counseling is always to achieve consistency with respect to the self and not with respect to the standards of society. When self-consistency is achieved, social problems are said to disappear.

Snygg and Combs (63) maintain that the prediction and control of the specific behavior of particular individuals cannot be accomplished from an external frame of reference. Instead, they feel that behavior must be observed phenom- enally—from the frame of reference of the individual. As a basic postulate they hold that "All behavior, without
exception, is completely determined by and pertinent to the phenomenal field of the behaving organism" (65:15).

By phenomenal field they refer to all of the events which are experienced by a given individual of a given instant. From an observer's point of view the phenomenal field of a given individual may seem distorted, but from that individual's vantage point it is the only reality which he experiences.

Behavior is postulated to have a one-to-one relationship with the phenomenal field. Phenomenal fields, therefore, are able to be induced from observations of behavior. The field is organized into figure ground relationships with highly conscious behaviors corresponding to highly differentiated aspects of the field and vague portions of behavior corresponding to incompletely differentiated aspects.

The phenomenal self is an abstraction which refers to "those aspects of the phenomenal field to which we refer when we say 'I'" (63:56). It is not limited to the physical aspects of the self but includes all concepts and people with whom the self is identified.

All behavior is a function of need satisfaction and the single basic need "if not the task of existence . . . is the preservation and enhancement of the phenomenal self" (63:58). The preservation of the physical self is seen as
a subgoal rather than an end in itself since many forms of activity are not directed toward self-preservation, e.g., suicide.

At birth the organism has the undifferentiated goal of maintaining organization, but during the course of development certain goals stand out from the rest of the phenomenal field. The phenomenal self exerts a selective effect on perception so that those goals which are compatible with the self become differentiated from the rest of the field. The more a particular goal satisfies the basic need, the greater the likelihood that it will persist. The "inertia of the field organization" is a secondary factor which tends to maintain the goal.

Snygg and Combs make a rather fine distinction between the phenomenal self and the self concept. The phenomenal self refers to those aspects of the total phenomenal field which an individual regards as characteristic of himself but which do not often stand out clearly from the field background. The self concept is an aspect of the total phenomenal field which is included under the self. It "includes those parts of the phenomenal field which the individual has differentiated as definite and fairly stable aspects of himself" (63:112). It is the most important part of the phenomenal field in determining how the individual will behave.
Thus, the concept of generality plays a highly important role in this theory. The individual is driven by one basic drive—the preservation of the self, and all behavior represents ways in which the individual attempts to satisfy this need in relation to goals which assume meaning in terms of their relevance to the need.

In Rogers' 1947 paper, three tentative propositions regarding the organization of personality were presented: First, "... the specific determinant of behavior is the perceptual field of the individual. . ." (52:367). Second, "... integration and adjustment are internal conditions related to the degree of acceptance or nonacceptance of all perceptions and the degree of organization of these perceptions into one consistent system. . ." (52:367). Third, "... the self under proper conditions, is capable of reorganizing to some extent, its own perceptual field, and of thus altering behavior. . ." (52:367).

Hypotheses were derived from these postulates which predicted that an individual's perceptions of self and others are modified by therapy. Several recent experiments have provided a coherent pattern of results.

Sheerer (59) described the change in self-evaluation as a result of therapy by rating client statements along a five-point scale of degree of acceptance of self and acceptance of others. Sheerer was able to study the
changes in degree of acceptance during the course of therapy by rating each client statement for each interview. Her results indicated that acceptance of others is significantly related to acceptance of self, and that nine of the ten clients expressed both increased acceptance of self and others as therapy progressed.

Stock (64), in a very similar study, classified client statements and found a clear-cut relationship between feelings about the self and feelings directed to other persons and groups. She also found that feelings about others change as feelings about the self change, though the sequential relationship was not identifiable.

Phillips (46) formed a questionnaire of items referring to self attitudes and items referring to attitudes towards others. Each item was rated by the subjects on a five-point scale from rarely or never applicable to self to very often applicable to self. Correlations between the two sets of items supported previous findings that acceptance of self and acceptance of others are significantly related.

McIntyre (38) hypothesized that better interpersonal relations are a function of better attitudes toward self and others. Attitudes toward self and others were measured by Phillips' questionnaire, and a sociometric device was used to discriminate highly accepted and poorly
accepted subjects. McIntyre's results were negative, and he concluded that his method was not an unambiguous test of the hypothesis.

Berger (7) tested Sheerer's and Stock's hypothesis using larger groups and more varied samples. His results led him to conclude that the previous evidence for a positive correlation between expressed acceptance of self and acceptance of others was supported and strengthened.

Hartley (21) used the Q technique to study a female client's attitudes and values toward self and others and to determine how these attitudes and values changed during the course of therapy. One hundred and fifty self-referent statements were selected from the protocols of persons who had undergone therapy. The subject was required to sort these statements on an eleven-point scale according to their significance for the self, the ideal self, the unhappy self, and the ordinary other. A normal distribution was forced by telling the subject how many statements there should be in each pile or category. These ratings were obtained at the beginning of therapy, during therapy, and at the end of therapy. At the beginning of therapy Hartley predicted a large discrepancy between the client's description of herself as she was and her description as she would like to be. This was supported by a correlation of .18 between pretreatment self sort and pretreatment ideal self sort. A prediction of a greater congruence
between these two sorts at the conclusion of therapy was borne out by a posttherapy correlation of .81. A low positive correlation between pre- and posttherapy self sorts suggested that therapy results in a modification of views of the self. On the other hand, a correlation of .71 between pre- and posttherapy ideal sorts suggested little modification in views of the ideal self during the course of therapy.

Recently, Rogers applied the Q methodology to the case of Mrs. Oak (54) and obtained results similar to those of Hartley.

Mowrer (40) has presented an excellent critique of this method when used as a measure of therapeutic movement. He points out that the posttherapy congruence between self sort and ideal self sort might be an artifact of the client's consciously experienced improvement at that point in therapy when his deepest resistances are being uncovered—the "flight into health" strategy. Improvement might also be an artifact of the client's more conscious discouragement with therapy or his unwillingness to be impolite by indicating that therapy did not help—Hatheway's "hello-goodbye pattern" (22).

Mowrer points out, too, that the ideal self is defined by external moral values. Since therapy is not necessarily expected to change the patient's view of cultural standards,
the ideal self would then be spuriously stable.

The problem of item selection is related to another deficiency which is important to consider in the light of the present research. As Mowrer points out, the items which are selected are not a random sample of all of the items which may be relevant to a given subject. A sample must be drawn from a smaller universe which has a particular relation to the problem being studied. Thus, it was logical for Hartley to sample a universe of those statements of people undergoing therapy with respect to which individuals are likely to change. It is obvious, then, that the similarity or dissimilarity between people is a function of the particular items that are selected. Universally applicable items, "I am human," would insure a high correlation between people. More unique items such as "My last name is Brown" would produce a low correlation between sorts.

Even though the experimenter selects items or traits which are both theoretically important bases of comparing people and characteristics with respect to which people differ, it still does not necessarily follow that the items are truly applicable to the people being rated. This is an important consideration and one which seems to have been overlooked. This point can be illustrated by drawing a distinction between what is meaningfully uncharacteristic.
and what is irrelevantly uncharacteristic. For example, a
subject might come across an item which indicates depres-
sion. This might be uncharacteristic because the subject
considers himself cheerful, or agitated, or happy. In this
case depression would be relevantly uncharacteristic. On
the other hand, the concept of depression might have no
meaning for another subject. He might simply not think of
himself in those terms nor might he describe others in
those terms. The concept of depression would then be irrele-
evantly uncharacteristic.

Even if the users of the Q technique select items that
are relevantly characteristic and relevantly uncharacter-
istic to the self there is always the possibility that the
items may not represent parameters within which the subject
is able to rate others relevantly. It is possible that a
subject may regard the concept of depression as relevantly
uncharacteristic of himself. Yet when forced to sort this
item for another person, he might throw it into the most
uncharacteristic pile because the item is simply not appli-
cable. If this occurred a sufficiently large number of
times, there would be a spuriously high correlation between
the self and others.

The RCRT, like the Q technique, may be used to assess
the degree of similarity between the self and others. How-
ever, there are a number of important differences between
the two techniques. With the Q method the subject rates single items from most to least characteristic. The RCRT's data are dichotomous constructs, involving a statement of a likeness and a statement of a difference. The subject indicates which of those people he is asked to consider are alike with respect to the likeness end of the construct and which are alike with respect to the contrast end of the construct. Many constructs are used. Secondly, the Q technique involves correlating the ratings of two or more people to determine their degree of similarity. The people in the RCRT are considered similar if they are characterized by similar ends of many construct dimensions. Thirdly, the data in the Q technique are imposed upon the subject. The RCRT data are constructs which are formed by the subject. Thus the assumption of the applicability of the data not only to the self but also to others is more tenable than it is with the Q technique. Fourth, the data used in the Q technique depend upon the purposes and theoretical orientation of the experimenter and similarity between people may be expected to vary accordingly. The RCRT is a theory-related test and the only population which is sampled is the subject's repertory of constructs.

Personal Construct Research

Bieri (8) and Lundy (34) have provided some evidence which indicates the relationship between ones perception of
oneself and perception of others in a constructive interaction situation. In Bieri's research, pairs of university students who were strangers spent ten minutes discussing each of two topics—their university course and a hypothetical vacation together. Bieri predicted that after the interaction each would perceive the other as being more like himself than he had at the beginning of the period. Before and after the interaction situation, each subject predicted the other's responses on a modified Rosenzweig Picture Frustration Test. His results clearly supported his hypothesis.

Lundy predicted that perceived similarity would reach a maximum early in a series of interactions and would be followed by a tendency to emphasize differences between self and others. He used a group psychotherapy situation and found, in accordance with his prediction, that perceived similarity reached a maximum after one week (two sessions) and perceptions of others as different from the self reached a maximum after two weeks.

Hamilton (20) has investigated the generality of personal constructs by hypothesizing that the constructs which are elicited by describing a combination of Murray and Symond's picture cards and the constructs which are elicited by a modified form of Kelly's Role Construct Repertory Test are not entirely specific to their
respective stimulus situations. Hamilton defined general-
ity in terms of the number of elements abstracted by a con-
struct, reasoning that constructs from a picture test and
constructs from a Role Construct test have a large number
of elements in common. She found that constructs elicited
by both tests have generality with respect to each other
and concluded that those constructs might be used in non-
test situations.

Along with this major hypothesis, Hamilton investi-
gated several other experimental variables. She investi-
gated the relationship between personal constructs and the
specific pictures which elicited them, finding "perceptible
relationships between some pictured figures and the con-
structs elicited by them, and perceptible distinctions
between the constructs elicited by different figures." She
cautions psychologists to be wary in assuming that a sub-
ject will apply the constructs he has used on a small num-
ber of people to many other people.

In addition to finding construct generality from one
test situation to another, she also found that there is a
significant relationship between two different parts of a
single picture test.

Finally, Hamilton investigated the generality of con-
structs in terms of the age-sex group membership of the
figures, finding borderline statistical significance.
To test all of her hypotheses Hamilton used a matching technique which required judges to piece together protocols or parts of protocols from both tests. Her training of the judges was extensive and included specific explanations of cues to be used and false cues to be avoided. Permissible cues included "similarity or identity of adjectives or phrases," similarity of construct dimensions, the judge's own set of abstractions of the data, vocabulary level, etc. All possible attempts were made to eliminate spelling or grammatical errors as cues for matching.

Shoemaker's study (61) concerning the relation between personal constructs and observed behavior may also be related to construct generality. His hypothesis proposed "that there exists a relationship between an individual's constructs concerning other persons and his own behavior" (61:2). In order to test this hypothesis Shoemaker administered a group form of Kelly's Role Construct Repertory Test to college students. The constructs elicited were "shaken down" into groups of similar or related constructs. Two "dummy" protocols were paired with each subject's protocol. Then a set of three protocols was given to a series of judges. The subject to whom the "real" protocol belonged was asked to play the role of a member of an Admissions Office of a large university and to interview a student who was seeking admission to graduate training in
Clinical Psychology. The subject was asked to get as much meaningful information from the applicant as possible. While the subject interviewed an experimenter who played the part of the applicant, the judges carefully noted aspects of the subject's questioning which might help them decide which of the three protocols belonged to the subject. Shoemaker's results for one of his experimental groups indicated that role-playing behavior and Role Construct Repertory Test protocols could be reliably matched. Shoemaker's results may be cast in slightly different form by stating that he demonstrated that constructs which appear on the Role Construct Repertory Test are not wholly specific to that task but also appear in non-test behavior.

Shoemaker, then, like Hamilton, relied on a matching technique to demonstrate relationships between constructs from two different behavior samples. Despite attempts to control irrelevant variables it is possible to question the relevancy of the dimensions along which matching occurred. In Hamilton's study, for example, vocabulary level was a permissible cue. If matching occurred on this variable, one wonders how relevant vocabulary level is to personal constructs. To be sure, vocabulary level is one way in which personal constructs may be compared at a nomothetic level. But two constructs which are phrased at a comparable vocabulary level may abstract entirely different
events. For example, black-white, up-down are probably comparable in vocabulary level. But the elements to which each applies overlap very little if at all.

The same criticism may be applied to Shoemaker's study. Very probably, construct dimensions served as a basis for matching role playing behavior with Role Construct Repertory Protocols. But how can one be sure? Shoemaker himself pointed out that his judges were unable to verbalize the bases for their matchings, and he suggested a more systematic approach to identify relevant variables.

Jones (26) has investigated differences in amount and kind of identification between matched samples of normal and NP patient populations in order to test the proposition that identification patterns are related to personal adjustment. His concept of identification between the self and others was defined as a perceived similarity in terms of personal constructs and was measured by the degree of correspondence between various figures in a modified grid form of the Role Construct Repertory Test.

Since Jones tested approximately thirty hypotheses, his results and for only those hypotheses which are relevant to the present research will be summarized.

Using another experimenter's data Jones found that mean degree of identification as measured by the RCRT reliably differentiated normal individuals from one test administration to another.
He found that both normals and NP patients tend to perceive themselves more like than different from most RCRT test figures and also tend to see themselves as more like those figures they accept than those they reject.

Jones factored the RCRT figures, arriving at a hypothetical figure which had the maximum possible similarity with all of the other RCRT figures. He found that the perceived self was more like the first generalized figure factor than like the mean of the specific males.

Other hypotheses tested by matrix analysis stemmed from Jones' thinking about differences in complexity of personal construct systems of normals and NP patients. Jones observed that NP patients do not discriminate or predict the behavior of others as well as normals and induced the hypothesis that they define themselves in terms of a smaller number of different constructs. He found, at a high level of significance, that the first generalized figure factor explained more of the RCRT grid for NP's than for normals.

Other interesting findings regarding differences in identification tendencies between normals and NP's are as follows: Underidentification and overidentification are more common among NP's than among normals. Normal males identify more with the father than with the mother whereas NP males do not. For both NP's and normals amount of
identifications with father is positively related to amount of identification with other male figures.

Relating identification tendencies to adjustment ratings of NP patients, Jones found that low mean identification with males is moderately related to interpersonal difficulty with peers while low mean identification is related to interpersonal difficulty with hospital personnel at the .05 level of significance. The hypothesis that NP patients with low mean identification scores will change less during six weeks of hospitalization was not supported although results were in the predicted direction.

Jones concludes that mean identification tendencies, patterns of identification with parents, and simplicity of RCRT factor structure carry predictive meaning. Jones concludes further "Perceived identifications which are mediated by personal constructs are meaningful despite the absence of an external criterion of accuracy."

Relation of Personal Construct Theory to Phenomenology

Like neophenomenology, Kelly's personal construct approach recognizes that the individual's frame of reference is a real phenomenon and hence susceptible to explanation in terms of systematic principles. Moreover, both approaches subscribe to the notion that the phenomenal field is inferable from the behavior of the individual. However, there are important differences. Neophenomenology
explains changes in perception in terms of Gestalt laws. Kelly does not concern himself with the properties of perceptions but goes a step behind them and abstracts personal constructions which he regards as vehicles for perception. Neophenomenology is primarily interested in the psychologist's prediction of the individual's behavior. Kelly, on the other hand, makes the individual as well as the psychologist a scientist by proposing that personal constructs are the dimensions along which an individual anticipates the events in which he is involved.

Perhaps the most important difference between the two approaches is the stand they take with respect to individual differences. Despite Leaky's criticism of stimulus-response psychology, about all phenomenology states is that experiences tend to be common among individuals of a given culture. Hence, within that culture, phenomenal fields are similar and people behave alike. On the other hand, no two people have experiences which are similar in all respects. Hence people have different phenomenal fields and individuality of behavior. Personal construct psychology makes use of constructs which underlie the behavior of all people. That is, at a high level of abstraction the individual is explicitly treated in a nomothetic fashion and his commonalities and differences with respect to others are studied.
In the next chapter we will discuss the relationship between generality and various nomothetic constructs used in the psychology of personal constructs.
Personal Construct Theory

Kelly (28) has evolved a perceptual theory of human behavior in which he conceives man's basic motivation to be the prediction and control of the events in which he is involved. Man is seen as developing personal viewpoints just as the scientist formulates theoretical points of view.

Kelly assumes that a real world exists apart from the perceiver and that man comes to understand it by placing upon it an evolving succession of transparent patterns or templets. These patterns are called constructs. Constructive alternativism, Kelly's basic philosophical position, assumes that the individual has a vast choice in the way he not only construes events but also in what he construes as constituting an event. Man's choice of constructs, while great, is not a matter of chance but is determined by how well it predicts his own behavior, the behavior of others, or, indeed, any of the events that are within its scope.

The fundamental postulate states that "a person's processes are psychologically channelized by the ways in which he anticipates events." Construing is a way of hypothesizing or anticipating, and personal constructs are the
structured channels or vehicles for the anticipations.

A construct, more specifically, is a way in which some things are seen as being alike yet different from others. Neither a perception of a similarity nor a perception of a difference is sufficient to define an event. The construct is pertinent to both, involving a simultaneous abstraction of a similarity and a difference. Stating it differently, three is the minimum number of elements in the context of a construct.

**Definition of Construct Terms**

Several terms referring to various aspects of constructs will be used repeatedly in this study. These terms are defined by Kelly as follows:

As has been implied, constructs are dichotomous and thus have two **poles**. The pole at which the elements are alike with respect to the construct is the **likeness end**. The pole at which the elements are dissimilar with respect to the construct is the **contrast end**. Frequently, when a person expresses a construct, he mentions only one pole. That pole is **emergent**. The **implicit** pole contrasts with the emergent one but is not expressed by name.

**Elements** are those things which are abstracted by a construct. The **context** of a construct is comprised of all those elements to which the construct is applicable.

An example may clarify these terms. Let X stand for
the way in which A and B are alike, and let Y stand for the way in which C is different. X-Y is then a construct and A, B, C are elements. X is the likeness end, and Y is the contrast end. If X is stated and Y is not, then X is emergent and Y is implicit. If D is seen either like X or like Y, then it is a contextual element. Everything either like X or like Y comprise the context of X-Y. If D is not like either X or Y, it is outside the range of the construct.

Generality--Specificity of Constructs

The term construct generality will be used in this study to refer to the extensiveness of use of constructs. Extensiveness may be expressed by all the things to which a construct is applicable or, in terms of the psychology of personal constructs, it may be expressed by the number of elements subsumed by (included within) the context of a construct. The elements at both ends of the construct dimension would be included within the construct. For example, if a person applies the construct happy-unhappy to other people, then all the people seen as happy and all the people seen as unhappy would be included as elements within the construct.

Extensiveness may be expressed in at least one other way. It may refer to all of the constructs to which a given construct is similar. We can compare similarity of constructs by referring to the elements which they have in
common. It should be pointed out, however, that two constructs do not have identical generality if all the elements which each of them includes are identical. It is necessary to know which ends of the respective constructs include which elements. For example, if all the people to whom a given person applies the construct happy-unhappy are the same as all the people to whom the construct carefree-worrisome applies, we do not know if both constructs have the same generality. However, if we know that all the people who are both happy and carefree are the same and if all the people who are both unhappy and worrisome are the same, then we may state that both constructs are similar or have the same generality. It is this second definition of construct generality which will be used in this study.

While it is theoretically possible to determine the absolute generality of a construct, it is impracticable to do so for research purposes. It would involve cataloging all of the constructs in a person's repertory and then listing all of the people or other constructs which are embraced by each end of each construct dimension.

In this study, the degree of generality of constructs was compared by holding constant the number of people to whom all of the constructs were applied. In other words, two constructs were considered to have identical degrees of generality if, out of a given number of people, the same
ones were described by corresponding ends of both dimensions.

Using this technique a scale of generality of a single construct is possible. Holding the number of elements constant, the similarity of one construct with many others may be compared. This will be elaborated more concretely when the Role Construct Repertory Test is described in Chapter Five.

Relation of Generality to other Theoretical Concepts

Later in this study several other theoretical concepts developed by Kelly will be used. Thus it is necessary to compare and contrast construct generality with them and with other important concepts in Kelly's theory.

Range of Convenience of Constructs

Constructs have a range of things to which they are applicable. For example, the construct heavy-light is usually applied only to those tangible things from which weight is abstracted although its range of convenience might be broadened if the construct is also used to refer to the readability or depth of literature. Whereas generality refers to either the number of elements embraced by a construct or to the similarity of two or more constructs, range of convenience refers to all the things to which the construct could be usefully applied. Thus, range of convenience refers more to what the construct is applied to
rather than to how much it is applied to.

**Permeability-Impermeability of Constructs**

Kelly defines a construct as permeable "if it will admit to its range of convenience new elements which are not yet construed within its framework" (23:ch.2). A permeable construct tends to be stable because new events and experiences can be added to its context. But, Kelly points out, its quality of openness to new events is a more precise identification rather than its possible characteristics of stability, consistency, or comprehensiveness.

Thus permeability refers only to whether a construct is open or closed to the addition of new elements. Generality, according to the first definition, refers only to the number of elements already contained by a construct. A permeable construct may become more general by the addition of new elements while the generality of an impermeable construct may remain constant or even decrease.

A general construct, as it is defined in this study, is one which is similar to many other constructs. A highly general construct, in this sense, may be relatively impermeable. A general construct which is permeable may even shift along a scale of generality because it may become slightly redefined as new elements are taken into consideration.

**Preemptive, Constellatory, and Propositional Constructs**

Kelly proposes three kinds of constructs which
represent two construct dimensions. These are defined as follows:

1. A **preemptive construct** is one which preempts its elements for membership in its own realm exclusively, e.g., species names. "Anything which is a ball can be nothing but a ball." "This is nothing but a ball."

2. A **constellatory construct** is one which fixes the realm membership of its elements, e.g., stereotypes. "Anything which is a ball has got to be . . . ." "Since this is a ball it must be round, resilient and small enough to hold in the hand."

3. A **propositional construct** is one which does not disturb the other realm membership of its elements, e.g., philosophical attitudes. "Any roundish mass be considered, among other things, as a ball." "Although this is a ball there is not reason therefore to believe that it could not be lop-sided, valuable, or have a French accent" (28:ch.3).

It is not possible to determine from the verbal symbol alone whether the construct is preemptive, constellatory, or propositional. The way the individual uses his construct is what is important.

All three kinds of constructs may have the same degree of generality if they subsume the same number of elements or if they have the same degree of similarity either with respect to one another or with respect to other constructs.

If generality is defined in terms of all the elements which a construct embraces, it would seem likely that propositional and preemptive constructs would have greater degrees of generality than constellatory constructs.

This same relationship between the three constructs
and their degrees of generality does not apply when generality is defined in terms of similarity. In practice it may be expected that propositional constructs will usually be more general than constellated constructs, and constellated constructs will be more general than preemptive constructs. For example, if one thinks about a ball propositionally, then all the events which are construed as balls may be construed as an infinite number of other things. If all things construed as balls may be abstracted by the constructs "French accent," "lop-sided," and "valuable," then these constructs are general not only with respect to one another but also with respect to the infinite number of alternate constructs which are possible. If a person construes a ball preemptively, there may be an infinite number of things which he calls balls, but since those things are nothing but balls, the construct represents the ultimate degree of specificity.

Superordinate-Subordinate Constructs

A construct is superordinate to another if it uses the other as an element in its context. The contextual constructs are construed as subordinate. For example, a construct such as good-bad might include the constructs moral-immoral, ethical-unethical, sincere-insincere, etc. It might also include such dimensions as mother-stranger, eating-abstaining, foreboding-inviting inasmuch as people,
acts, and situations are constructs just like those verbal dimensions which are commonly thought of as more abstract.

Superordination-subordination are relative because a given construct may be both subordinate to one construct and superordinate to another. Stating it differently, a subordinate construct does not necessarily "belong" to a construct which is superordinate to it; it may occupy a subordinate or superordinate position in other construct hierarchies. For this reason, it is not possible to compare the concept of generality to superordinality unless we speak of constructs within a given hierarchy.

If the generality of a construct is defined in terms of the number of elements it subsumes, then a superordinate construct in a single hierarchy is usually more general than any of the constructs which it subsumes. It needn't, however, be more general than any subordinate construct.

There is no necessary relationship between the super-ordinality or subordinality of a construct and its generality if its generality is defined by the number of other constructs to which it is similar. Two superordinate constructs are similar only if they subsume the same elements and group them in a similar fashion. But even if two superordinate constructs embraced the same elements, they would not necessarily have to group them similarly. A subordinate construct might be subsumed by the like side of
its superordinate construct; it may be subsumed by the unlike side, or it may be divided. For example, a person may use the constructs considerate-inconsiderate and well-bred-illiterate. These constructs, in turn, might be subsumed by the construct cultured-uncultured. Cultured people would then be, among other things, considerate and well-bred. Uncultured people would be, among other things, inconsiderate and illiterate. Or instead of dividing subordinate constructs on both sides of the superordinate dimension, a person might consider the entire dimensions of dependent-independent and pleasant-unpleasant as elements in the construct traits.

A superordinate construct may be general with respect to its subordinate elements if its elements are constellated with it. But, as we have pointed out, the subordinate elements may have membership in other construct hierarchies.

**Comprehensive-Incidental Constructs**

According to Kelly:

Comprehensive constructs are those whose likeness and subsumes a relatively wide variety of events. They are not necessarily highly regnant or superordinate constructs, for the events which they subsume may all be relatively low on the superordinate-subordinate scale. A permeable construct tends to move in the direction of comprehensiveness because its open-endedness enables it to embrace more and more elements in its context as time goes on.

Actually, as we see it, a comprehensive construct cuts across many other construct lines. The "variety" in the elements is established by the person's having otherwise distinguished them as being different from
each by means of other constructs. Thus when we use the term "variety" we are referring to a "variety" within the person's own construct system. Thus a constellatory construct would tend to be less comprehensive than a propositional construct which is embraced precisely the same elements. The constellatory construct tends to fix its elements with respect to other realm memberships and hence they cannot be construed in the same variety as they would otherwise. A wholly preemptive construct could, of course, not be comprehensive at all.

... Incidental construct subsume a small variety of events at their likeness end (28: ch.13).

We have stated that the generality of a construct may be determined by counting all of the elements on both ends of the dimension. Which end contains more elements is irrelevant. It is only the total number of elements which is considered. Since comprehensive constructs usually embrace a large number of events on their likeness ends, they are often general. It is not the gross number of elements which the likeness end embraces, however, which decides whether a construct is comprehensive. It is, rather, the variety of events that matters. A comprehensive construct may abstract similarities from a small number of events, but the similarly perceived events are distinguished in many other ways. Consequently, there is no necessary relationship between generality, in the first sense of the term, and comprehensiveness.

However, there is a more precise relationship between generality, as we define it in this study, and the construct of comprehensiveness. That is, a comprehensive
construct has a slight degree of generality with the other constructs in a person's repertory because the elements which it construes as similar are differentiated in many other ways. For example, all the people whom a given person construes as sensitive are not usually construed as similar in all other respects. Some of the sensitive people may be men, some may be women, some may be successful, some may be unsuccessful, etc. A construct is general only if the events within its range of convenience which are similar are also construed as similar in many other respects.

**Consistency-Inconsistency**

According to the psychology of personal constructs, each individual evolves a more or less unique system of constructions which he utilizes to anticipate events. This system is comprised of hierarchical and abstractive relationships among a finite number of constructs. Because an individual's construction system is organized, incompatible anticipations of events are minimized. Incompatibility of anticipation occurs at subordinate levels of the system but is limited by the more permeable and comprehensive constructions with which a person maintains his identity. Consistency, then is a construct of the relationship between higher and lower levels of a system rather than between antecedent and present courses of action.
If an individual has two constructs which subsume an identical number of elements, we would not expect him to have similar anticipations and similar consequent behavior with respect to all the elements, irrespective of their subsuming constructs. However, if two constructs subsume the same elements and group them similarly, then we would expect the holder of the constructs to behave similarly toward these elements. In short, if two constructs have the same degree of generality in terms of our first definition, the holder of the constructs will behave consistently only with respect to the elements in each construct. On the other hand, if two constructs have the same degree of generality (defined in terms of similarity) then the holder of the construct will follow compatible courses of action with respect to the elements in both constructs.

The Relationship of the Theory to This Study

The self is used as an element in the context of a construct when it is compared or contrasted with at least two other things or people. The psychology of personal constructs proposes that when a person uses himself as a datum in forming a construct, his behavior in relationship to other people is profoundly affected.

A person who describes himself as mannerly is implicitly contrasting himself with other people who are rude (or whatever form of unmannersliness makes the construct
meaningful to him). He may also be contrasting himself with the way he is on other occasions, but it is difficult to imagine a construct which applies exclusively to a context of three selves. The essential point is that when a person describes himself, he expresses those dimensions along which he anticipates the behavior of others.

Conversely, when a person describes others as mannerly, he indicates that mannerliness-unmannerliness is a dimension which controls his own behavior. He may group himself either with the elements which are dissimilar or with the elements which are similar, but he cannot dissociate his identity from the construct.

The constructs which a person applies to others are his abstractions of certain aspects of their thinking. In other words, he construes their presumed constructs. According to the Sociality Corollary of personal construct psychology, "To the extent that one person construes the construction processes of another he may play a role in a social process involving the other" (28:ch.2).

We would expect people who play a wide variety of roles to have many constructs which embrace the presumed constructs of others. Moreover, we would expect the constructs which these people apply to themselves to be highly similar to their role constructs. In other words, we would expect self-characterization constructs to have a better
than chance degree of generality with RCRT constructs. This expectation is essentially what is tested in the hypotheses dealing with construct generality.

The terms *self constructs* and *non-self constructs* will be used often in the following pages. Self constructs were obtained from the RCRT by asking subjects to consider themselves and two other specified people and to state how two of them are alike yet different from the third. Similarly, subjects were asked to consider three people other than the self and to abstract a similarity and a distinction. Such constructs will be referred to as non-self constructs even though the self is definitely within their range of convenience.

Although we have hypothesized that constructs which a person applies to himself are similar to constructs which he applies to others, it is possible that there are theoretically significant differences between self constructs and non-self constructs. We have reasoned that when the self is to be considered in forming a series of constructs, it forces a uniformity of construction so that self constructs have a greater degree of generality with one another than do non-self constructs. Accordingly, we have hypothesized that self-characterization constructs will have a greater degree of generality with self RCRT constructs than with non-self RCRT constructs.
This, however, is not a necessary deduction from the psychology of personal constructs. It may be that the presence of the self forces the subject to use more comprehensive constructions, in which case we might find that self-characterization constructs have a greater degree of generality with non-self constructs than with self constructs.

A third possibility is that self constructs are not more general with respect to one another than are non-self constructs. In this case we might find that self-characterization constructs have as great a degree of generality with non-self constructs as they do with self constructs.

Despite the difficulty of making a theoretically deduced hypothesis, we will propose that there is a difference between self constructs and non-self constructs and then set up the experimental design so that positive or negative results have theoretical feedback.
CHAPTER FOUR

STATEMENT OF THE HYPOTHESES

Introduction

In this study the hypotheses will be stated at three different levels. In Chapter One they were stated in very general terms. In this chapter they will be stated on an intermediate level of abstractness and will be referred to as theoretical hypotheses. The operational restatement of the hypotheses will have to wait for an elaboration of the experimental methodology and method of statistical analysis. The experimental hypotheses appear at the end of Chapter Six.

The theoretical hypotheses in this chapter are referred to by letter. In parenthesis, after each letter, there are Roman and Arabic numerals which refer to the corresponding experimental hypotheses.

Theoretical Hypotheses

Construct Generality

A. (I-1,2; V-1,2,3,4) A superordinate self construct from a subject's self-characterization has a high degree of generality with his Role Construct Repertory Test constructs.

B. (II-1,2; VI-1,2,3,4) A superordinate self
construct from a subject's self-characterization has a high degree of generality with his RCRT constructs which are generated on figures other than the self.

C. (III-1, 2; VII-1,2,3,4) A superordinate self construct from a subject's self-characterization has a high degree of generality with his RCRT constructs which are generated on figures other than the self.

D. (IV-1,2) A superordinate self construct from a subject's self-characterization has a greater degree of generality with his RCRT constructs which are generated on the self and two other figures than with his RCRT constructs which are generated on figures other than the self.

**Figure Generality**

E. (VIII) The self as a figure has a high degree of generality with the other figures in a RCRT.

F. (IX) The self has a high degree of generality with the other figures in the RCRT who are defined by non-self constructs.

G. (X) The self has a high degree of generality with the other figures in the RCRT who are defined by self constructs.

H. (XI) The self has a greater degree of generality with those RCRT figures who are defined by self constructs than with those figures who are defined by
non-self constructs.

I. (XII) The self has a greater degree of generality with parent figures than it does with non-parent figures.
CHAPTER FIVE

METHODOLOGY AND EXPERIMENTAL DESIGN

Introduction

In this chapter the experimental design and the methods for obtaining self-characterizations and Role Construct Repertory Tests will be described. An elaboration of the rather involved method of statistically analyzing these data will be reserved for Chapter Six.

Description of the Sample

The subjects used in this study were college students in elementary psychology courses. As part of their course requirements, these students had to spend three clock hours as subjects in psychological experiments. The choice of which of the many available experiments they wanted to participate in was left to the students. Consequently, the students used in this study may be regarded as voluntary rather than captive subjects.

The initial sample was comprised of thirty-one subjects. All except one were Freshmen. Their age range was from eighteen to twenty-six. Excluding the one twenty-six year old, the range was from eighteen to twenty-one years. The median age was eighteen and all except four were female. The proportion of males to females may be regarded
as representative since the vast majority of the students in the elementary psychology courses were female.

Seven of the thirty-one subjects could not be used in the experiment because of "invalid" Role Construct Repertoire protocols. Criteria for invalidity will be explained later in this chapter.

Consequently, an additional sample of twenty subjects was obtained. Ten of them were selected on a random basis, bringing the total experimental N to thirty-four.

The ten additional subjects were obtained in exactly the same manner as the original sample. All were Freshmen. Their age range was from eighteen to twenty-one. Their median age was nineteen, and all but two were female.

**Self-Characterization**

The self-characterization is a simple clinical method for, first, eliciting the construct dimensions with respect to which a person identifies himself and, secondly, for revealing where a person places himself on those dimensions.

Kelly’s instructions to the procedure were used because they are relatively unstructured and do not bias the subject’s production. Moreover, since they ask for the third person form and invite the subject to be sympathetic rather than self-destructive, they tend to minimize threat. A more complete rationale is given in Kelly’s book (28).

In this study his instructions were changed only from singular to plural form:
I want each of you to write a character sketch of yourselves as if you were the principal character in a play. Write it as it might be written by a friend who knew you very intimately and very sympathetically, perhaps better than anyone could really ever know you. Be sure to write it in the third person. For example, if your name is Tom Brown, start out by saying, "Tom Brown is."

**Role Construct Repertory Test**

The Role Construct Repertory Test is a theory-related test designed to elicit a subject's constructions of key people in his life. (See Appendix A)

Briefly, the test consists of a grid. Names of specific people who are suggested to the subject by general role descriptions head each column. The subject is required to consider each row, form a construct on the three people whose names have circles under them, write both ends of the construct to the right of the row, and then check all the remaining people to whom the likeness end of the construct applies.

**Assumptions Underlying the RCRT**

There are a number of assumptions which underlie the use of the RCRT and which have to be taken into account in drawing conclusions about the present research. Kelly lists six assumptions:

One must first assume that the constructs which are elicited on the RCRT are applicable not only to the specific RCRT figures but are open to the addition of other important figures with whom the subject interacts or
will interact.

Second, one must assume that the sample of figures prescribed by the role descriptions is representative of all the people with whom the subject develops and utilizes his role constructs. The figures in the RCRT which are used in this study are presumed to be representative of the people with whom the subject has his most important interactions.

Third, the constructs elicited in the test are assumed to be representative of the ones which the subject is accustomed to use. That is, it is assumed that the constructs are not newly-formed to meet the requirements of the task.

Fourth, the assumption must be made that many of the constructs represent the subject's understanding of the presumed constructs of other people. In other words, the test is not useful if role constructs are not elicited.

The fifth assumption is that the constructs which are elicited are not incidental to the subject's self-identity but are those with which he maintains his identity and organizes his behavior.

The sixth assumption is important only for those forms of the RCRT which do not use incident and voids as operations for the subject's verbal labeling of his constructs. That is the assumption that the subject's verbal names for
his constructs mean what the examiner thinks they mean.

A final assumption of particular importance in the grid form of the RCRT is that all of the figures in the test are within the range of convenience of all of the constructs. More specifically, we assume that, in any row, those figures who are not checked are alike with respect to the contrast end of the construct.

**Modified RCRT**

A modified form of Kelly's Role Construct Repertory Test was administered to all of the subjects. This test consisted of a grid with nineteen columns and twenty-two rows. On a separate mimeographed sheet of paper (Appendix A) nineteen role titles were listed. For example, role title ten is, "A person with whom you have worked who, for some unexplainable reason, appears to dislike you." The subjects were asked to write the name or some identifying feature of the person so described in the blank next to role title ten. The subjects followed this procedure for all nineteen role titles.

The titles were selected by Kelly according to groups which are of importance in our culture. Figure number one is the self. The next four titles are family figures, the next four are intimate peers, the next four are valencies (e.g., people to whom one has strong positive or negative attitudes or feelings), three are authority figures, and
the last three are value figures (e.g., successful person, happiest person). The subjects were not informed of these groupings, but these groups were important in the construction of the test, as will be explained later.

The role title sheet was next laid sidewise across the top of the grid so that the numbered role titles corresponded to the numbered columns in the grid.

In each of the twenty rows in the grid, three of the nineteen figures were circled. The subjects were then given the following instructions:

Consider the three people in the first row whose names appear at the heads of the three columns that have circles in them. Think about these three people. Are two of them alike in some important way that distinguishes them from the third person? Keep thinking about them until you remember the important way in which two of them are alike and which sets them off from the third person. When you have decided which two it is and the important way in which they are alike, put an "X" in the two circles corresponding to the two that are alike. Do not put any mark in the third circle. Now write on the blank to the right of row number one under "construct" the word or short phrase that tells how these two are alike. Next write in the blank under "contrast" what you consider to be the opposite of this characteristic. Now consider each of the other sixteen persons whose names appear at the heads of the sixteen columns which you have not yet considered. In addition to the persons you have marked with an "X," which ones also have this important characteristic? Put a check mark ( )—not an "x"—under the name of each other person who also has the characteristic you have noted.

The subjects were then told to slide their role title sheet down the grid, repeating the same procedure for each of the remaining nineteen rows. They were asked to do
nothing with the last two rows in the grid, rows twenty-one and twenty-two.

Control of Figure Sorts

The three figures in each of the twenty rows upon whom the subjects were asked to form constructs were arranged and selected in the following manner.

The grid was divided into two parts. One part, consisting of ten consecutive rows, excluded the self as a figure to be considered in originally forming a construct, although the construct was later applied to it. The other part, also consisting of ten consecutive rows included the self as one of the three figures to be considered in forming a construct in each of the ten sorts. To offset possible effects of position, one-half of the subjects received a grid with the non-self sorts at the top half of the grid and one-half of the subjects received a grid with self sorts at the top half of the grid. For convenience let us refer to the non-self sorts as Part A and to the self sorts as Part B.

Since nineteen figures taken three at a time can be combined in nine hundred sixty-nine possible ways, it was necessary to sample these possibilities in such a manner so that all the sorts in Part A would be equivalent to the sorts in Part B except for the presence of the self as one of the three figures in each of the ten sorts of Part B.
Also, it was necessary to use all of the figures in each part.

To accomplish this the previously mentioned figure groupings were used. It will be recalled that, excluding the self, the eighteen other figures were combined into five groups.

It was arbitrarily decided that each of the three figures to be used in each sort would come from a different figure grouping. The problem then became one of using all possible combinations of five things taken three at a time. The number of such possible combinations is ten. These ten sorts, in random order, comprised Part A.

Since the self always appeared in Part A, it was necessary to select two other figures for each sort, each from a different figure grouping. There are ten possible combinations of five things taken two at a time. These possible combinations, in random arrangement comprised Part B. Table 1 shows how many times each figure appears in Part A and in Part B.

In Part B, four figures are used for each of the five groups. Since there are only three figures in the authority and value groups, one figure from each of these groups had to be used twice. These figures were chosen at random.

In Part A, six figures are used for each of the five groups. Since there are only four figures in the family,
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<td>Part B</td>
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intimates, and valence groups, two figures had to be used twice. These two figures were chosen at random. Since the authority and value groups contain only three figures, each figure was used twice and there was no problem of choice.

Instructions to the Subjects:

The instructions were given to the students at the beginning of their regularly scheduled class hour in elementary psychology. As part of the course requirements, the students had to spend three extra-curricular hours as subjects in psychological experiments. It was explained to the subjects that all those who volunteered for the experiment would receive two clock hours credit. They were told that the experiment would consist of two parts. The first part could be completed at home in approximately one hour but they would be required to appear at the Psychological Clinic for the second part of the experiment anytime during the hours specified by the experimenter.

After determining if a sufficient number of people would be interested in participating, the experimenter read the instructions for the self-characterization which was to be completed at home.

The subjects were cautioned against writing autobiographical accounts. They were also told that they were to write their names on the back of the character sketches for purposes of identification. They were assured that only
the experimenter would be aware of their identity.

The second part of the experiment was described in very general terms. The subjects were told that they would be required to complete an interesting paper and pencil task and that they would not be subjected to anything extreme or absurd in any way.

A sheet marked off in hours was passed to the volunteers. The subjects signed up for the hour they had free. Since several subjects could be tested at the same time, they were urged to sign up in groups if possible.

Judging the Self-Characterizations

Pretest: Three sample self-characterizations were obtained from college students in an undergraduate psychology course. These protocols were given to four judges, all fourth year graduate students in clinical psychology who were well-acquainted with the theory of personal constructs. They were asked to pick out the most superordinate construct from each subject's self-characterization and to write it down in the subject's own words. If both ends of the construct were not stated, the judges were asked to guess at the implicit end and to write the construct so that it assumed the meaning intended by the subject.

These sample self-characterizations appear in Appendix B. They are presented in entirety. Only the names are
changed to preserve the anonymity of the authors. The constructs pulled out of the protocols by the four judges appear in Table 2.

It appears, from inspection of the judges' results (Table 2), that they were all picking out similar constructs even though they did not use the same terms for them.

Several statistical methods were considered for determining interjudge reliability, none of which seemed feasible. Matching studies were discarded because of the difficulty of knowing whether words, vocabulary level, or meanings determined the basis for matching. The difficulties involved in translating constructs to units of measurement militated against using such an approach.

It was decided, finally, that judges, reading the protocols together, could arrive at the broadest self-characterization construct by arbitration. This was the method used in the fixed design.

**Fixed Design:** Several days before the administration of the RORT the judges met to consider the self-characterizations. There were two judges in addition to the experimenter. Both were advanced graduate students in clinical psychology. One had had an extensive acquaintance with the psychology of personal constructs. The other was familiar
Table 2
Constructs from Pretest Judging of Sample Self-Characterizations

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<tr>
<th></th>
<th>William S.</th>
<th>Tom West</th>
<th>Joan</th>
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</thead>
<tbody>
<tr>
<td>well-meaning and well-</td>
<td>intellectually-inclined and adaptable vs.</td>
<td>understands people and broadminded vs. lack</td>
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<tr>
<td>adjusted vs. selfish and</td>
<td>shallow and narrowminded</td>
<td>of understanding and narrowminded.</td>
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<td>maladjusted</td>
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<tr>
<td>well-meaning and adjusted vs.</td>
<td>searching and creative vs. shallow and</td>
<td>broadminded and interested in people vs.</td>
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<tr>
<td>selfish and poorly adjusted</td>
<td>unimaginative</td>
<td>narrowminded and insincere</td>
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<tr>
<td>sensitive to the reactions of</td>
<td>serious minded vs. shallow</td>
<td>sincerity vs.</td>
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<tr>
<td>others vs. unconcerned with</td>
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<td>insincerity</td>
<td></td>
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<tr>
<td>feelings of others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a well-adjusted (balanced)</td>
<td>interests broad, serious vs.</td>
<td>sincere, broadminded vs. insincere and full</td>
<td></td>
</tr>
<tr>
<td>personality vs. a simple</td>
<td>interests shallow</td>
<td>of jealousy, distrust, and egocentrism</td>
<td></td>
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<tr>
<td>self-evident personality</td>
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</table>
with the theoretical point of view but was not accustomed to analyze test protocols in terms of construct dimensions.

A short training session was held in which the experimenter presented his instructions informally and several sample protocols were analyzed.

No additional theoretical exposition was offered to the judges. They were asked simply to consider all of the construct dimensions which each subject applied to himself and to attempt to pick out that dimension under which many of the others could be subsumed.

Thus the task was not to select necessarily the most general self construct but the most superordinate one. For example, a subject might describe himself as a male as contrasted from a female. Male-female would be a highly general construct since there are many constructs which correspond to a male-female dichotomy. Yet it could be relatively low on a scale of superordination-subordination, being embraced by a higher order construct such as intelligent-stupid, i.e., some males and some females are intelligent; others are stupid.

It was anticipated that in some cases the most superordinate dimension would be constellated. In these cases the judges were asked to select all of the construct terms which appeared to hang together.

Also, it was anticipated that some subjects might use
only one end of a construct dimension in describing themselves. The judges were asked to write-in the implicit end of the dimension so that the construct assumed the meaning intended by the subject.

The judges were cautioned against superimposing their own personal or diagnostic constructs on the data and were asked to write out the dimensions in the subjects' own terms whenever possible.

Each judge in turn read aloud a self-characterization. After each reading, each judge wrote his version of the superordinate self dimension. After all of the judges made their choices, each read his aloud. In many cases the agreement was so close that the judges arrived at a mutually satisfying construct in a very short time. Occasionally there were marked differences among the judges. In such cases, each judge presented the reasons for his choice and a free interchange of ideas resulted in one or more judges changing his mind so that a decision could be reached. In no case was a judge entirely dissatisfied with the choice made by the other two members.

As mentioned in the description of the sample, ten additional cases were added to the original experimental group. At the time of obtaining these additional subjects, no graduate students were available who were sufficiently familiar with the psychology of personal constructs to
judge the self-characterization protocols. All of the judging was done by the experimenter. The implications of this necessary deviation from uniformity will be discussed in Chapters Seven and Eight.

**Assignment of Self-Characterization Constructs**

As will be recalled, one of the hypotheses required comparing the generality of a subject's self-characterization construct with the generality of another subject's self-characterization construct of a comparable level of superordinality.

Accordingly, the experimenter assigned each subject some other subject's self-characterization construct. This was done randomly.

**Administration of the RCRT**

The subjects appeared for the second portion of the experiment in small groups of from two to five people. The instructions to the task were given orally, but each subject had a mimeographed copy of the instructions to which he could refer in case he had a question about the procedure. The subjects were asked to complete the twenty sorts in approximately fifty-five minutes.

After the subjects completed their twenty constructs, the experimenter inserted each subject's self-characterization construct to the right of row twenty-one and his randomly assigned self-characterization construct to the
right of row twenty-two. The subjects were then asked to read the constructs carefully and to place a check mark in those columns corresponding to the figures to whom the constructs applied and to leave blank those columns corresponding to the figures to whom the contrast ends of the constructs applied.

Most of the subjects completed the RCRT in the allotted time. However, about six of the subjects had difficulty either in understanding the instructions or in thinking of constructs. All of these subjects were kind enough to remain the additional time required to complete the task.

Invalid Protocols

An inspection of the RCRT protocols revealed several points of interest. Most of the subjects seemed to use social-psychological constructs rather than more concretistic situational ones. Also, in most of the cases, at least half of the cells in the grid were incidents. This meant that the similarity end of each construct was applied, on the average, to at least fifty per cent of the figures in each row. Such constructs, thus, were discriminative for the subjects.

On the other hand, a few subjects' grids were only flecked with occasional incidents. Many of the individual rows in each protocol had only two incidents in them. This suggested that these subjects either did not understand the
instructions or else used constructs that applied only to
the three people on whom they were originally formed, the
remainder of the figures being outside of their range of
convenience. If we assume these constructs had only a
limited range of convenience, it becomes interesting to
note that they seem to be the kind that are widely applied.
Examples are have a plan for the future—not too sure of
self, shallow—deep, moody—even temperament. The minority
of these constructs with only a three figure context were
more clearly limited in range—e.g., Lutheran (sic)—
Episcopalian.

Three of the subjects did not have incidents in their
self column in Part A of the grid even though they applied
a seemingly similar construct to themselves in Part B.

These two features—constructs with only two incidents
or no incidents in the self column in Part A—served as
criteria for invalidity. No RCRT was thrown out of the
sample unless it had a minimum of five constructs with only
two incidents.

Summary

Students in elementary psychology courses were asked
to spend one free hour writing intimate and sympathetic
character sketches of themselves in the third person.
Small groups were then scheduled to appear for one hour of
additional experimentation. The nature of their task was
Thirty-one subjects completed both their self-characterizations and their RCRT's. Seven of the RCRT protocols were considered invalid and were thrown out. An additional sample of twenty subjects completed self-characterizations and RCRT's. Ten of these additional subjects were selected randomly for use in this study.

Three judges read the self-characterization of each subject in the original experimental group. The judges then selected, by a process of arbitration, a superordinate self construct from each protocol. The self-characterizations obtained from the additional subjects were judged by the experimenter only.

Each subject was randomly assigned some other subject's self-characterization construct.

Only one of the subjects who wrote self-characterizations failed to appear for administration of the RCRT. The remainder appeared singly and in groups of from two to five. After each subject completed his twenty sorts, the experimenter inserted the subject's own self-characterization construct in the space next to row twenty-one and another subject's self-characterization construct in the space next to row twenty-two. The subjects were then required to check all of the figures in the grid to whom the likeness side of the respective constructs applied. The
administration of the RCRT took approximately one hour.
CHAPTER SIX

METHOD OF ANALYSIS

Introduction

In Chapter Four, the extensiveness or degree of generality of a construct was defined in terms of its similarity to other constructs. In this chapter the methods of measuring similarity of constructs will be described along with the rationale for the methods. This elaboration serves as a necessary background for the operational restatement of the hypotheses which appears at the end of the chapter.

Factoring the RCRT: Maximum Intra-RCRT Construct Generality

It will be recalled that each row in the RCRT grid is composed of nineteen cells, each cell corresponding to the name of a person who fills a particular role. The subject is asked to look at the three cells in each row that have circles in them and to consider the three people whose names appear above the circles. He is asked to write the important way in which any two of the three indicated people are alike and then write the way in which the third is different. He places an "X" in the circles of the two people who are considered to be alike and then checks (✓) all
the remaining sixteen people in the row who are more like the two people judged to be similar than they are like the dissimilar person. All of the people whose cells have no marks in them are presumed to be relatively like the dissimilar person.

Thus, when the subject completes his RCRT, we have a list of twenty statements of a likeness and a difference in addition to twenty patterns of "X's," checks, and blanks. The "X's" and checks will be referred to hereafter as incidents and the blanks will be referred to as voids.

Putting it differently, the RCRT elicits constructs by forcing a subject to abstract simultaneous similarities and distinctions between people. Although the subject's written statements give the examiner a good idea of the kinds of distinctions he makes, written or verbalized dimensions are not the distinctions themselves but merely the labels for them. The distinctions, or constructs, are cognitive sorting procedures, and operations for them are provided by the patterns of incidents and voids in each row of the RCRT.

As we go down the list of written constructs in a subject's grid we occasionally find constructs which appear more than once. In the main, however, the protocols of most subjects yield constructs which seem verbally to be quite different from one another. If we plot the subject's constructs against a set of our own reference axes, the
apparent heterogeneity is reduced to a semblance of order. For example, a subject used the constructs generous-selfish, idealistic-cynical, satisfied-dissatisfied. From a nomothetic frame of reference the examiner might say that the constructs are pretty much the same and that a construct such as adjusted-maladjusted might explain them. However, using this approach, the examiner has no way of checking his abstraction if only the RCRT data are at hand. It may be that the three constructs mean quite different things to the subject and cannot be embraced by the examiner's abstraction. Even constructs which appear to be literal duplicates of one another may be applied in different ways.

In an attempt to reduce the complexity of RCRT protocols to a simpler structure which can be understood by the examiner, Kelly has devised a non-parametric method of factoring the RCRT's dichotomous data (incidents and voids). The method is described more completely in his text (28:ch.6) than it will be treated here.

Briefly, the method involves counting the matchings of incidents and of voids between any two rows or columns, depending on whether one is interested in construct factors or figure factors. In this study only construct factors were obtained. The method was as follows: The incidents in each of the nineteen columns of the grid were added, giving us a trial basis for determining the most general construct factor or row pattern whose incidents and voids
matched the greatest possible number of cells in the grid. Then the percentage of incidents in the grid as a whole was computed, and approximately the same percentage of the nineteen incident totals was encircled. The encircled totals were, of course, the highest ones. This resulted in a hypothetical construct whose incident side was represented by the encircled totals and whose void side was represented by the non-encircled totals.

This trial factor was then used as a scanning pattern and was matched with each of the twenty rows. Since there was a total of nineteen incidents and voids to a row, chance matching would give a figure of nine and one half. Consequently, those rows that matched the trial factor ten times or more were considered positively correlated with it; those rows that matched the trial factor nine times or less were considered to be negatively correlated with it. All of the negatively correlated rows were reflected—that is, incidents and voids were interchanged. Reflection produced new incident totals and, most of the time, a new trial factor pattern. Whenever a new factor pattern appeared, the rows were rescanned. If no new negatively correlated rows appeared, the trial factor was accepted as the first generalized construct.

First construct factors were also derived from both parts of the RCRT grid—that part which required constructs...
to be formed on non-self figures and that part in which the self was always one of the three figures on whom a construct was to be formed (Parts A and B).

This was as far as the factorization was carried even though it was possible to extract additional factors from those constructs that were not significantly related to the first generalized construct. Table 3 gives the probability values for the number of cell matches. The fiducial limit of $p = .10$ is selected as the lower limit for a significant relationship. Thus, for example, fourteen matches out of a possible nineteen is a relationship significant at the .06 level, within the fiducial limit.

The first construct factor pattern, then, has the best fit with the RCRT row patterns. Theoretically, it has the greatest possible degree of similarity with the RCRT constructs. We have defined construct generality in terms of similarity. Thus, by definition, the first factor pattern has the maximum degree of generality with the RCRT grid. It will be referred to in the experimental hypotheses as "that construct derived from the RCRT which has the maximum generality with the RCRT constructs."

In Chapter Five it was explained that after each subject completed his RCRT, the experimenter inserted constructs to the right of rows twenty-one and twenty-two, and the subject was asked to check all of the figures in those
Table 3

p-VALUES FOR NUMBERS OF CELL MATCHES

(Courtesy G. A. Kelly)

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<th>No. Cells in Row</th>
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* Boundary of fiducial limit, p = .10.
Table 1

NUMBERS OF CELL MATCHES

No. Matches (Arithmetic)

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rows to whom the likeness ends of the respective constructs applied. The construct to the right of row twenty-one was the one obtained from his self-characterization; the construct to the right of row twenty-two was the one obtained from another subject's self-characterization. Matching the row pattern generated by the self-characterization construct (referred to hereafter as the SC construct) with the first factor patterns provided a measure of the degree of generality of the SC construct. The self-characterization construct obtained from another subject (referred to hereafter as a random SC construct) was also matched with the first construct factors. This provided a check on the hypothesis that it is the SC construct rather than an irrelevant construct which has a high degree of generality with RCRT constructs.

Mean Intra-RCRT Figure and Construct Generality

Another method for determining intra-RCRT generality was devised. A construct generality measure was obtained by counting the match of each row pattern of the RCRT with every other row pattern. Negatively correlated rows were reflected to maximize the matches. The total number of matches for each row were added and then divided by nineteen times twenty, giving us the mean match of each row with every other.

The mean row by row match for both the SC construct
and the random SC construct was computed and compared both
with one another and with the mean measure of intra-RCRT
construct generality.

An analogous procedure was performed with each column
of the grid, (excluding the self column), giving us a
measure of mean intra-RCRT figure generality. Negatively
correlated rows were not reflected because of the unknown
psychological meaning of an "inverted" person. The mean
match of the self RCRT column with non-self columns was
computed, and this measure of self generality was compared
with mean intra-RCRT figure generality.

Experimental Hypotheses

Definition of Terms

The following terms are used in the statement of
the experimental hypotheses and will be redefined at this
point to facilitate, if not insure, reader comprehension.

Self RCRT Constructs. Ten of the twenty con-
structs in each subject's RCRT were obtained by asking
each subject to consider himself and two other speci-
fied people and to think of a characteristic which set
any two of them off from the third. He was asked to
write the way in which the two were alike and the
third different. This constituted the verbal state-
ment of the construct dimension. Next, each subject
was asked to place "X" marks in the cells correspond-
ing to the people whom he considered to be alike and
to check the cells corresponding to the remaining
people who also had the likeness rather than the con-
trast characteristic. Thus, all of the RCRT figures
with "X's" or check marks (incidents) under their
names were considered to be alike with respect to the
likeness end of the construct; those RCRT figures with
voids under their names were considered to be alike
with respect to the contrast end of the construct.
When each subject completed this part of the RCRT
(previously designated as Part B) each of his ten
verbal construct dimensions was operationally defined
by a pattern of incidents and voids.

Self constructs, then, are those patterns of
incidents and voids which represent a construct which
is formed on a context of the self and two other
people.

Non-Self RCRT Constructs. Ten of the twenty con-
structs in each subject's RCRT were obtained by asking
each subject to consider three specified people other
than himself and to think of an important character-
istic which set two of them off from the third. From
this point on the subject's task was identical to that
described above. It should be mentioned that the sub-
ject was always free to check himself as one of the
people who are similar with respect to the likeness end of the construct.

Non-self RCRT constructs, then, are those patterns of incidents and voids which represent a construct which is formed on a context of three figures other than the self.

SC Construct. This is the construct that was obtained from each subject's self-characterization. The verbal statement of this construct was written next to row twenty-one of the "owner's" RCRT, and he was then required to check all the people in the row to whom the likeness end of the construct applied. This gave us a pattern of incidents and voids which we refer to as the SC construct.

Random SC Construct. Each subject had the verbal statement of some other subject's SC construct inserted next to row twenty-two of his RCRT. These constructs were randomly assigned. The subject was required to check all the RCRT figures to whom the likeness end of the construct applied. This gave us a pattern of incidents and voids which we could compare with the SC construct or with any specified construct in the RCRT.

Construct Generality

I. Generality of SC Constructs with both Self
and Non-Self RCRT Constructs

1. There is a better than chance correlation between a subject's SC construct and that construct derived from his RCRT which has the maximum generality with his RCRT constructs.

2. The mean degree generality of a subject's SC construct with his RCRT constructs is greater than the mean degree of generality which his RCRT constructs have with one another.

II. Generality of SC Constructs with Non-Self RCRT Constructs Only

1. There is a better than chance correlation between a subject's SC construct and that construct derived from the RCRT which has the maximum generality with his non-self RCRT constructs.

2. The mean degree of generality of a subject's SC construct with his non-self RCRT constructs is greater than the mean degree of generality which his non-self RCRT constructs have with one another.

III. Generality of SC Constructs with Self RCRT Constructs Only

1. There is a better than chance correlation between a subject's SC construct and that construct derived from the RCRT which has the maximum generality with his self RCRT constructs.
2. The mean generality of a subject's SC construct with his self RCRT constructs is not greater than the mean generality which his self RCRT constructs have with one another.

IV. Comparative Generality of SC Constructs with Self RCRT Constructs and with Non-Self RCRT Constructs

1. The correlation between a subject's SC construct and that construct derived from his RCRT which has the maximum generality with his self RCRT constructs is greater than the correlation between a subject's SC construct and that construct derived from his RCRT which has the maximum generality with his non-self RCRT constructs.

2. The mean generality of a subject's SC construct with the self constructs of his RCRT is greater than the mean generality of his SC construct with the non-self constructs of his RCRT.

V. Comparative Generality of SC Constructs and Random SC Constructs with Both Self and Non-Self RCRT Constructs

1. A random SC construct has a chance correlation with that construct which is derived from the RCRT which has the maximum generality with the RCRT constructs.

2. The correlation between a subject's SC construct and that construct derived from his RCRT which
has maximum generality with his RCRT constructs is greater than the correlation between a random SC construct and that construct derived from the RCRT which has maximum generality with his RCRT constructs.

3. A subject's SC construct has a greater mean degree of generality with his RCRT constructs than does a random SC construct.

4. The mean degree of generality that a random SC construct has with a subject's RCRT constructs is not greater than the mean degree of generality that his RCRT constructs have with one another.

VI. Comparative Generality of SC Constructs and Random SC Constructs with Non-Self RCRT Constructs

1. A random SC construct has a chance correlation with that construct derived from a subject's RCRT which has the maximum generality with his non-self RCRT constructs.

2. The correlation between a subject's SC construct and that construct derived from his RCRT which has the maximum generality with his non-self RCRT constructs is greater than the correlation between a random SC construct and that construct derived from his RCRT which has the maximum generality with his non-self RCRT constructs.

3. The mean degree of generality of a subject's SC construct with his non-self RCRT constructs is
greater than the mean degree of generality of a random SC construct with his non-self RCRT constructs.

4. The mean degree of generality of a random SC construct with a subject's non-self RCRT constructs is not greater than the mean degree of generality which his non-self RCRT constructs have with one another.

VII. Comparative Generality of SC Constructs and Random SC Constructs with Self RCRT Constructs

1. A random SC construct has a chance correlation with that construct derived from a subject's RCRT which has the maximum generality with his self RCRT constructs.

2. The correlation between a subject's SC construct and that construct derived from his RCRT which has the maximum generality with his self RCRT constructs is greater than the correlation between a random SC construct and that construct derived from his RCRT which has the maximum generality with his self RCRT constructs.

3. The mean degree of generality of a subject's SC construct with his self RCRT constructs is greater than the mean degree of generality of random SC construct with his self RCRT constructs.

4. The mean degree of generality of a random SC construct with a subject's self RCRT constructs is not greater than the mean degree of generality which his self
RCRT constructs have with one another.

**Figure Generality**

VIII. The mean degree of generality which the self as a figure has with other figures in the RCRT is greater than the mean degree of generality which the other RCRT figures have with one another.

IX. The mean degree of generality which the self (defined by a constellation of constructs generated on non-self figures) has with other RCRT figures (defined by constellations of constructs generated on non-self figures) is greater than the mean degree of generality which the other RCRT figures have with one another.

X. The mean degree of generality which the self (defined by a constellation of constructs generated with the self as an element) has with other RCRT figures (defined by constellations of constructs generated with the self as an element) is not greater than the mean degree of generality which the other RCRT figures have with one another.

XI. The mean degree of generality which the self (defined by a constellation of constructs generated with the self as an element) has with other RCRT figures (defined by constellations of constructs generated with the self as an element) is greater than the mean degree of generality which the self (defined by a constellation of
constructs generated on non-self figures) has with the other RCRT figures (defined by constellations of constructs generated on non-self figures).

XII. The self has a greater mean degree of generality with parent figures than it does with non-parent figures.
CHAPTER SEVEN

RESULTS

Introduction

In Chapter Four it was explained that twenty-four subjects had their self-characterizations judged by three psychologists while ten additional subjects had their self-characterizations judged by the experimenter only. Because of this, each hypothesis (with the exception of those tested by the first construct factor) has three sets of results—one set based on a total N of thirty-four, one set based on an N of twenty-four, and one set based on an N of ten. For each hypothesis, similarities and discrepancies among sets of results will be discussed.

Limitations of the Factor Method

A number of experimental hypotheses use the first construct factor pattern from the RCRT as an operation for the notion of a construct which has maximum generality with the RCRT constructs. Both the SC construct and random SC construct are matched with it to give us a measure of their degree of generality or similarity to RCRT constructs.

The results of these matchings are based on a random sample of only ten of the original twenty-four subjects. It was decided not to factor all of the subjects' RCRT's
for two reasons: First, the preliminary results, in the main, did not produce significant results, and it was felt that the first factor pattern was too rigorous a measure for RCRT construct generality. The second reason is based on a discrepancy between the theoretical and empirical scanning ability of the construct factor. That is, even though the first generalized construct factor should have, theoretically, the maximum possible match with the construct patterns in the RCRT grid, it does not always work out like that in actual practice. This is so because the number of incident totals that are encircled in obtaining the first trial pattern is a matter of approximation. That is, in order to obtain a generalized factor which has the maximum match with RCRT constructs, one encircles the same proportion of incident totals as there are incidents in the grid as a whole. But frequently a large number of similar incident totals makes it impossible to adhere strictly to the rule. For example, let us say that we have a grid with ten columns and ten rows. Of the one hundred cells in the grid, thirty-five are incidents. This means that thirty-five per cent of the incident totals are to be encircled. Suppose the incident totals are as follows: 5,4,4,4,5,3,2,1,3,4. Now, either three or four incident totals are to be encircled. Obviously the two 5's must be
included, and one must then decide whether to include all of the 4's, just one 4, or two more 4's. Frequently, the "fit" of the first factor will depend on the choice that is made. Moreover, the match of the SC pattern with the first construct factor will also depend on the choice that is made.

Chiefly because of the second limitation of the factor method, an alternate method was used to find the construct pattern which actually did have the maximum match with RCRT constructs. In Chapter Six, it was explained that in order to derive a measure of mean intra-RCRT construct generality, each row of the RCRT was matched with every other row. Often an RCRT row pattern was found to match the other row patterns better than the first generalized factor. Whenever this occurred, the SC construct and random SC construct were matched with it instead of the first construct factor. Table 4 shows the match of the SC constructs and random SC constructs with the first construct factor. Table 5 shows the match of the SC construct and the random SC construct with that construct which was found to have the greatest possible match with RCRT constructs. The different effect of the two methods will be pointed out in discussing the results.¹

¹After the data for this research were calculated, Dr. George A. Kelly devised an improved method for factoring the RCRT. Preliminary results with this method suggest that the first construct factor has maximum generality, in practice as well as theory.
The t-Test of Significance

In most of the hypotheses two measures of generality are obtained for each subject. In all cases the null hypothesis which we test is that the observed differences between the means of the two measures of generality are due to chance. Since we have two measures on each subject, the test of significance of the difference between them must make allowance for the fact that the two sets of scores are not random with respect to each other. Consequently we have used a t-test based on correlated means and have worked directly with the standard deviation of the distribution of differences between paired scores (13).

Fiducial Limits

We shall refer to differences which yield a p-value of .02 or less as highly significant. Differences which have p-values from .05 to .02 will be referred to as moderately significant. Those p-values from .10 to .05 will be referred to as slightly significant.

Summary of Analysis and Explanation of Tables

The following hypotheses required that the SC construct and/or random SC construct be matched with a measure of maximum intra-RCRT construct generality: Hypotheses I-1, II-1, III-1, IV-1, V-1, V-2, VI-1, VI-2, VII-1, and VII-2.

Ideally, the first generalized construct factor from
the RCRT should have the maximum possible match with all of
the RCRT constructs. But, as has been explained, a con­
struct from the RCRT was frequently found to match the RCRT
constructs better than the first generalized construct
factor. This construct will be referred to as the
maximally-matching RCRT construct.

Because of the difference in matching ability between
the first construct factor and the maximally-matching RCRT
constructs, the results for each of the above hypotheses
will be discussed in two ways. First the results for the
hypothesis will be presented when the SC construct and/or
random SC construct is matched (correlated) with the first
construct factor. Secondly, the results will be presented
when the SC construct and/or random SC construct is
matched with the maximally-matching RCRT construct.

Table 4 shows the correlation of the first generalized
construct factor with the SC construct and with the random
SC construct for each subject.

Table 5 shows the correlation of the maximally-
matching RCRT construct with the SC construct and with the
random SC construct.

The following hypotheses required that for each sub­
ject the match of the SC construct and/or the random SC
construct with RCRT constructs be compared with a measure
of mean intra-RCRT construct generality: Hypotheses I-2,
II-2, III-2, IV-2, V-3, V-4, VI-3, VI-4, VII-3, VII-4, VIII, IX, X, XI, and XII. This mean intra-RCRT construct generality measure was obtained by determining the mean match (correlation) of each RCRT construct with every other RCRT construct. Some of these hypotheses state that the mean degree of generality of the SC construct or random SC construct with RCRT constructs is greater than the mean degree of generality which RCRT constructs have with one another. Table 6 shows the t- and p-values for the proposed differences for all three sets of data. A minus sign before a t-value indicates that the mean difference was in a direction opposite to that predicted. An asterisk before a p-value indicates that the difference was significant but in a direction opposite to that predicted.

Tables 7 through 14 are supplementary and appear in Appendix C. Tables 7 and 8 present the raw data for all subjects. Tables 9 and 10 show mean differences, t-values, and significance levels for all thirty-four subjects. Tables 11 and 12 show mean differences, t-values, and significance levels for the twenty-four subjects whose self-characterizations were judged by a panel of judges. Tables 13 and 14 show the mean differences, t-values, and significance levels for the ten subjects whose self-characterizations were judged by the experimenter only.

Tables 3, 4, 5, and 6 will be the major ones referred
to in the following statement of the results.

Construct Generality Results

**Hypothesis I-1**

Using the first construct factor, we fail to reject the null hypothesis. Table 4, based on a random selection of ten cases, shows that the SC construct and the first construct factor have a mean correlation of 13.2. That is, the incidents and voids in the first construct factor were matched with the incidents and voids in the SC construct pattern. The mean number of times incident corresponded with incident and void corresponded with void was 13.2. Table 3 (Chapter Six) indicates that 13.2 out of a possible 19 matches could have occurred by chance approximately 15 times in 100. Therefore, we fail to reject the null hypothesis that there is a chance correlation between SC constructs and RGRT constructs.

Table 5 shows that the mean correlation of the SC construct with the maximally-matching RGRT construct is 14.6. Table 3 shows that this falls between the p-values of .06 and .02. Interpolating indicates that the mean correlation is significant at the .04 level. The experimental hypothesis is therefore supported.

**Hypothesis I-2**

This hypothesis is fully supported for all three sets of data. Table 6 shows that for all thirty-four
subjects the t-test is significant at the .01 level. For the N of twenty-four the t-test is significant at the .02 level, and for the N of ten the t-test is significant at the .01 level.

Hypothesis II-1

The null hypothesis fails to be rejected when the first construct factor from Part A of the RCRT is correlated with the SC construct. Table 4 shows that the mean correlation is 13.3. Table 3 indicates that this correlation has a p-value of approximately .14.

The experimental hypothesis is supported when the construct which has the maximum match with Part A of the RCRT is correlated with the SC construct. Table 5 shows that the mean correlation is 14.3. Table 3 shows that this is significant at approximately the .05 level.

Hypothesis II-2

This hypothesis is supported for all three sets of data. Table 6 shows that the t-test is significant at the .01 level.

Hypothesis III-1

The null hypothesis fails to be rejected when the first construct factor from Part B of the RCRT is correlated with the SC construct. Table 4 shows that the mean correlation is 12.2. Table 3 indicates that this correlation occurs by chance approximately 32 times in 100.
The experimental hypothesis is supported when the construct which has the maximum generality (maximum match) with Part B of the RCRT is correlated with the SC construct. Table 5 shows that the mean correlation is 14.0. Table 3 indicates that it falls at the p-level of .06.

**Hypothesis III-2**

This hypothesis states that the mean degree of generality of the SC construct with self RCRT constructs is not greater than the mean degree of generality which self RCRT constructs have with one another. This hypothesis is consistent with our proposal that self RCRT constructs have a high degree of generality with one another (see Chapter Two). In other words, the experimental hypothesis is the null statement.

Table 6 shows that this hypothesis is supported for the N of twenty-four only.

The t-values for the N of thirty-four and the N of ten fall at the .02 and .01 levels. The results therefore argue for rejection of the null hypothesis.

**Hypothesis IV-1**

The null hypothesis fails to be rejected when the SC construct is correlated with the first construct factor from Part B of the RCRT and with the first construct factor from Part A of the RCRT. Table 4 shows that the first mean correlation is 12.2 and the second is 13.3.
The null hypothesis also fails to be rejected when the SC construct is correlated with those constructs which have the maximum match with Part B and Part A of the RCRT, respectively. Table 5 shows that the first mean correlation is 14.0 and the second is 14.3.

**Hypothesis IV-2**

The null hypothesis fails to be rejected for all three sets of data. Table 6 indicates that the t-values do not meet our level for statistical significance. In fact, the mean differences for all three sets of data show a trend in a direction opposite to that predicted.

**Hypothesis V-1**

The experimental hypothesis is here the null statement. Table 4 shows that the mean correlation of the random SC construct with the first construct factor from the RCRT is 13.3. Table 3 indicates that this correlation has a p-value of approximately .14. Therefore the results do not argue for rejection of the null hypothesis.

Table 5, on the other hand, shows that the mean correlation of the random SC construct with the maximally-matching RCRT construct is 14.3. Table 3 indicates that by interpolation between the p-values of .06 and .02, the correlation falls at approximately the .05 level. Hence, we must reject the null hypothesis.

**Hypothesis V-2**
This hypothesis must be rejected in favor of the null statement when the first construct factor is used as a measure of intra-RCRT construct generality. Table 4 shows that the correlation between the SC construct and the first construct factor is 13.2. The correlation between the random SC construct and the first construct factor is 13.2.

The null hypothesis also fails to be rejected when the maximally-matching RCRT construct is used as a measure of intra-RCRT construct generality. Table 5 shows that the correlation between the SC construct and the maximally-matching construct is 14.6. The correlation between the random SC construct and the first construct factor is 14.3. Inspection of the table clearly indicates that the difference does not meet our level of significance.

**Hypothesis V-3**

This hypothesis is fully supported for the data based on the N of thirty-four and the data based on the N of 10. Table 6 also indicates that the null hypothesis fails to be rejected for the N of twenty-four. The mean difference, however, is in the predicted direction and the t-test has a p-value of approximately .18.

**Hypothesis V-4**

The experimental hypothesis is here the null statement. Table 6 indicates that the t-tests based on all
three sets of data do not argue for rejection of the null hypothesis.

**Hypothesis VI-1**

The experimental hypothesis is the null statement. This hypothesis fails to be rejected when the first construct factor from Part A of the RCRT is used as a measure of intra-RCRT construct generality. Table 4 indicates that the mean correlation between the random SC construct and the first construct factor from Part A of the RCRT is 13.3. Table 3 indicates this has a p-value of approximately .14, below our level for significance.

The null statement is rejected, however, when the random SC construct is correlated with the construct which has the maximum match with Part A RCRT constructs. Table 5 indicates the correlation is 13.8. The p-value (Table 3) is approximately .10.

**Hypothesis VI-2**

The null hypothesis fails to be rejected when the first construct factor from Part A of the RCRT is used as a measure of intra-RCRT generality. Table 4 shows the correlation of the SC construct with the first construct factor from Part A is 13.3. The correlation of the random SC construct with the first construct factor from Part A is 13.2. Clearly, this difference is not significant.

The null hypothesis also fails to be rejected when the
construct which has the maximum match with Part A is used as the measure of intra-RCRT construct generality. Table 5 shows that the correlation of the SC construct with the construct which has the maximum match with Part A is 14.3. The correlation of the random SC construct with the construct which has the maximum match with Part A is 13.8. This difference is not significant.

**Hypothesis VI-3**

The null hypothesis fails to be rejected. None of the t-values in Table 6 meets our level for statistical significance.

**Hypothesis VI-4**

Here the experimental hypothesis is the null statement. Table 6 shows that for all three sets of data this hypothesis fails to be rejected.

**Hypothesis VII-1**

This hypothesis is the null statement. The results do not argue for rejection of the hypothesis when the first construct factor from Part B is used as a measure of intra-RCRT construct generality. Table 4 shows the correlation between the random SC construct and the first construct factors from Part B to be 12.3. Table 3 indicates that this correlation has a p-value of approximately .30.

The hypothesis barely fails to be rejected when the
random SO construct is correlated with the construct which has maximum generality with Part B of the RCRT. Table 5 shows the correlation to be 13.4, above a p-value of .10 (approximately .13).

**Hypothesis VII-2**

This hypothesis is rejected in favor of the null hypothesis when the measure of intra-RCRT construct generality is either the first construct factor from Part B of the RCRT or that construct which has maximum generality with Part B of the RCRT. (Tables 4 and 5, respectively)

**Hypothesis VII-3**

This hypothesis is supported for all three sets of data, more strongly, however, for the data based on an N of thirty-four and an N of ten (Table 6).

**Hypothesis VII-4**

This experimental hypothesis is the null statement. Table 6 shows that the results based on all sets of data do not argue for rejection of the null statement.

**Figure Generality Results**

**Hypothesis VIII**

This hypothesis is not supported. The data based on an N of thirty-four produce significant results in a direction opposite to that predicted. So also do the results based on an N of twenty-four, though to a lesser degree (Table 6).
The null hypothesis fails to be rejected for the data based on an N of ten (Table 6).

**Hypothesis IX**

This hypothesis is supported for the N of thirty-four and the N of ten. It is not supported for the N of twenty-four, although the t-value is close to the .10 level (Table 6).

**Hypothesis X**

This hypothesis is the null statement and is consistent with the proposal that figures formed by constellations of self constructs are as similar to one another as they are to the self. The results for all three sets of data argue for rejection of this hypothesis. In fact, the results indicate that Part B figures have a greater mean degree of generality with one another than they do with the self of Part B (Table 6).

**Hypothesis XI**

The results for all three sets of data are significant in a direction opposite to that predicted (Table 6).

**Hypothesis XII**

The hypothesis is fully supported for all three sets of data (Table 6).
Table 4

Correlation of First Generalized Construct Factor with SC Construct and with Random SC Construct

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p-Value: .15, .14, .14, .15, .32, .30

Note: 1F is the first construct factor from all RCRT rows. 1FA is the first construct factor from Part A of the RCRT. 1FB is the first construct factor from Part B of the RCRT. SCR is a random SC construct.
Table 5

Correlation of Maximally-Matching RGRT Construct with SC Construct and with Random SC Construct

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Mean: 14.6, 14.3, 14.3, 13.8, 14.0, 13.4

p-Value: .04, .05, .05, .10, .06, .13

Note: M is that RGRT construct which has the maximum match with all RGRT constructs. M_A is that RGRT construct which has the maximum match with Part A RGRT constructs. M_B is that RGRT construct which has the maximum match with Part B RGRT constructs. SC is a random SC construct.
Table 6

p-Values and t-Values for the Three Sets of Data

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Note: A minus sign before a t-value indicates that the mean difference was in a direction opposite to that predicted. An asterisk indicates that the results are significant in a direction opposite to that predicted.
CHAPTER EIGHT

SUMMARY AND CONCLUSIONS

Summary of Experimental Design

Students in elementary psychology courses were asked to spend one hour writing intimate and sympathetic character sketches of themselves. Small groups were then scheduled to appear for one hour of additional experimentation. The nature of their task was unspecified.

On appearing for their appointments the subjects were administered an RCRT which required them to form constructs on twenty different figure sorts. The RCRT's were divided into two different parts. One part--Part A--required the subjects to form constructs on figures other than the self. The other part--Part B--required them to form constructs on the self and two other figures. The constructs from Part A are referred to as non-self sorts; those from Part B are referred to as self sorts.

Of the thirty-one subjects who completed self-characterizations and RCRT's, seven could not be used because of invalid protocols. An additional sample of twenty subjects completed self-characterizations and RCRT's. Ten of these additional subjects were selected randomly for use in this study.
Three judges read the self-characterizations of each subject in the original experimental group (N = 24). The judges then selected, by a process of arbitration, a superordinate self-construct from each protocol. The self-characterizations obtained from the ten additional subjects were judged by the experimenter only.

Each subject was randomly assigned some other subject's self-characterization construct.

After each subject completed his twenty RCRT constructs, the experimenter inserted the subject's own self-characterization construct (SC construct) in the space next to row twenty-one and another subject's self-characterization construct (random SC construct) in the space next to row twenty-two. The subjects were then asked to check all of the figures in the grid to whom the likeness sides of the respective constructs applied.

Summary of Results

Before the discussion and conclusions, the results will be organized into a summary that points up the interrelationships among findings.

Construct Generality

Several hypotheses required that the SC construct and/or the random SC construct be correlated with the most general RCRT construct (Hypotheses I-1, II-1, III-1, IV-1, V-1, V-2, VI-1, VI-2, VII-1 and VII-2). The following is a
summary of the results obtained when the first construct factor is considered to have the greatest possible match with RCRT constructs (refer to Table 4).

1. None of the results of the hypotheses which required the SC construct to be correlated with the first construct factor meet the limits we have established for statistical significance (Hypotheses I-1, II-1, III-1). In other words, the SC construct does not have a better than chance correlation with the first construct factor which was derived from the entire RCRT, from Part A of the RCRT, or from Part B of the RCRT. The results, however, are close to significance.

2. Three hypotheses were tested by correlating the random SC construct with the first construct factors derived from the entire RCRT, from Part A of the RCRT, and from Part B of the RCRT (Hypotheses V-1, VI-1, VII-1). A chance correlation was predicted in each case. The results do not argue for rejection of any of the three hypotheses although the correlation in each case is close to significance.

3. The predictions were made that the SC construct would have a higher correlation with the first construct factors from the entire RCRT, from Part A of the RCRT, and from Part B of the RCRT than would a random SC construct
(Hypotheses V-2, VI-2, VII-2). The results do not argue for rejection of any of the null hypotheses.

4. The prediction was made that the SC construct would have a higher correlation with the first construct factor derived from Part B of the RGRT than it would with the first construct factor derived from Part A of the RGRT (Hypothesis IV-1). The results indicate that the null hypothesis fails to be rejected.

It was found that a row pattern from the RGRT often had a greater degree of generality with RGRT constructs than did the first construct factor. Consequently, the above hypotheses were tested by correlating the SC construct and/or the random SC construct with the maximally-matching RGRT construct. These results are summarized as follows (refer to Table 5):

1. Three hypotheses were tested by correlating the SC construct with the construct which had the maximum possible match with the entire RGRT, with the construct which had the maximum possible match with Part A, and with the construct which had the maximum possible match with Part B (Hypotheses I-1, II-1, III-1). The prediction, in each case, was that there would be a better than chance correlation. The results argue for rejection of the null hypothesis in all three cases.
2. Three hypotheses were tested by correlating the random SC construct with the construct which had the maximum possible match with the entire RCRT, with Part A of the RCRT and with Part B of the RCRT (Hypotheses V-1, VI-1, VII-1). A chance correlation was predicted in each case. Only Hypothesis VII-1 is supported. The correlation for this hypothesis, however, is very close to significance.

3. The predictions were made that the SC construct would have a higher correlation with the constructs which had the maximum possible match with the entire RCRT, with Part A of the RCRT, and with Part B of the RCRT than would a random SC construct (Hypotheses V-2, VI-2, VII-2). The results do not argue for rejection of any of the null hypotheses.

4. The prediction was made that the SC construct would have a higher correlation with the construct which had the maximum match with Part B of the RCRT than it would with the construct which had the maximum possible match with Part A of the RCRT (Hypothesis IV-1). The null hypothesis fails to be rejected.

The degree to which SC constructs and random SC constructs match RCRT constructs was compared with the degree to which RCRT constructs match one another. The results were broken down into three groups—results based on twenty-four subjects whose SC constructs were selected by a panel of judges, results based on ten additional subjects
whose SC constructs were selected by the experimenter only, and results based on a pooled N of thirty-four subjects.

The following is a summary of the results obtained when the degree to which the SC construct matches RCRT constructs is compared with the degree to which RCRT constructs match one another (refer to Table 6):

1. The results for all three sets of data indicate that the mean degree of generality which SC constructs have with all RCRT constructs is significantly greater than the mean degree of generality which all RCRT constructs have with one another (Hypothesis I-2).

2. The results for all three sets of data indicate that the mean degree of generality which SC constructs have with Part A RCRT constructs is significantly greater than the mean degree of generality which Part A RCRT constructs have with one another (Hypothesis II-2).

3. The prediction was made that the mean degree of generality which SC constructs have with Part B RCRT constructs is not greater than the mean degree of generality which Part B RCRT constructs have with one another (III-2). Results based on the N of twenty-four do not argue for rejection of this hypothesis. However, the hypothesis of no difference must be rejected for the N of thirty-four and the N of ten. Results indicate that the degree of generality which SC constructs have with Part B constructs is
significantly greater than the degree of generality which Part B constructs have with one another.

The following is a summary of the results obtained when the degree of generality which random SC constructs have with RCRT constructs is compared with the degree of generality which RCRT constructs have with one another:

1. Three predictions were made. First, it was predicted that the mean degree of generality which random SC constructs have with all RCRT constructs is not greater than the mean degree of generality which all RCRT constructs have with one another (Hypothesis V-4). Second, it was predicted that the mean degree of generality which random SC constructs have with Part A RCRT constructs is not greater than the mean degree of generality which Part A constructs have with one another (Hypothesis VI-4). Third, it was predicted that the mean degree of generality which random SC constructs have with Part B RCRT constructs is not greater than the mean degree of generality which Part B constructs have with one another (Hypothesis VII-4).

The results for all three sets of data do not argue for rejection of any of the three null statements. In other words, the hypotheses of no difference are quite tenable.

The following is a summary of the results obtained when the degree of generality which SC constructs have with RCRT constructs is compared with the degree of generality
which random SC constructs have with RCRT constructs:

1. It was predicted that the mean degree of generality which SC constructs have with all RCRT constructs is greater than the mean degree of generality which random SC constructs have with all RCRT constructs (Hypothesis V-3). The results based on the N of thirty-four and on the N of ten argue for rejection of the null hypothesis. The results based on the N of twenty-four do not warrant rejection of the null hypothesis, but it should be pointed out that the p-value of .14 approaches our fiducial limit.

2. It was predicted that the mean degree of generality which SC constructs have with Part A RCRT constructs is greater than the mean degree of generality which random SC constructs have with Part A RCRT constructs (Hypothesis VI-3). The results for all three sets of data do not warrant rejection of the null hypothesis.

3. It was predicted that the mean degree of generality which SC constructs have with Part B RCRT constructs is greater than the mean degree of generality which random SC constructs have with Part B RCRT constructs (Hypothesis VII-3). The results for all three sets of data reject the null hypothesis.

A final prediction was that the mean degree of generality which SC constructs have with Part B RCRT constructs is greater than the mean degree of generality which SC
constructs have with Part A RCRT constructs (Hypothesis IV-2). The results for all three sets of data do not argue for rejection of the null hypothesis. Mean differences show a trend in a direction opposite to that predicted.

Figure Generality

The mean degree of generality which the self column of the RCRT has with the non-self RCRT figures was compared with the mean degree of generality which the non-self figures have with one another:

1. It was predicted that the mean degree of generality which the self has with non-self RCRT figures is greater than the mean degree of generality which the non-self figures have with one another (Hypothesis VIII). The results based on the N of thirty-four and the results based on the N of twenty-four are significant in a direction opposite to that predicted. The results based on the N of ten do not argue for rejection of the null hypothesis.

2. It was predicted that the mean degree of generality which the self from Part A has with non-self Part A figures is greater than the mean degree of generality which Part A figures have with one another (Hypothesis IX). The null hypothesis is rejected for the N of thirty-four and the N of ten. The data based on the N of twenty-four yield a p-value of .12. This is so close to the fiducial limit that we are willing to claim the hypothesis is tena-
3. It was predicted that the mean degree of generality which the self from Part B has with non-self Part B figures is not greater than the mean degree of generality which non-self Part B figures have with one another (Hypothesis X). Results for all three sets of data indicate that the hypothesis of no difference is not supported. The results indicate, instead, that the mean degree of generality which non-self Part B figures have with one another is significantly greater than the mean degree of generality which the self from Part B has with non-self Part B figures.

There were two final predictions concerning figure generality:

1. It was predicted that the mean degree of generality which the self from Part B has with the other Part B figures is greater than the mean degree of generality which the self from Part A has with the other Part A figures (Hypothesis XI). Results for the three sets of data are significant in a direction opposite to that predicted.

2. It was predicted that the mean degree of generality which the self has with parent figures is greater than the mean degree of generality which the self has with non-parent figures (Hypothesis XII). Results for all three sets of data reject the null hypothesis with a high degree of confidence.
Discussion

In order to provide support for the hypothesis that SC constructs have a high degree of generality with RCRT constructs, it was necessary to demonstrate two things: First, it was necessary to show that the SC constructs have a better than chance relationship to a measure of intra-RCRT generality. Secondly, it was necessary to demonstrate either that SC constructs relate better to the measure of intra-RCRT generality than do random SC constructs or that random SC constructs have a chance relationship to the measure of intra-RCRT generality.

This study has not demonstrated that SC constructs have a high degree of generality with RCRT constructs when the measure of intra-RCRT construct generality is either the first construct factor or when it is that RCRT construct which was found to have maximum generality with other RCRT constructs. These results are based on a random sample of ten of the original twenty-four cases. Data for the total N were not computed because it was felt that the maximum intra-RCRT generality measure was too demanding a test of the hypothesis.

Consequently, a measure of mean intra-RCRT generality was used. The results indicate that the mean degree of generality which SC constructs have with all RCRT constructs, with Part A RCRT constructs, and with Part B con-
structs is significantly greater than the mean degree of generality which these respective constructs have with one another. Moreover, the results indicate that the mean degree of generality which random SC constructs have with all RCRT constructs, with Part A RCRT constructs and with Part B constructs is not significantly greater than the mean degree of generality which their respective constructs have with one another. Our general hypothesis is thus supported. These results are strengthened when we note that the mean degree of generality which SC constructs have with all RCRT constructs and with Part B constructs is significantly greater than the mean degree of generality which random SC constructs have with these RCRT constructs. However, SC constructs apparently have as great degree of generality with Part A RCRT constructs as do random SC constructs.

One of the assumptions behind the RCRT is that the figures used are a representative sample of the people with whom subjects have formed crucial relationships and that their representativeness is relevant to the important construct dimensions which the subjects apply to others. Hence, we may generalize our results to include people other than those who are specified in the RCRT.

The results of the figure generality hypotheses may be
interpreted as being in accord with the results of the construct generality hypotheses. We have found that the mean degree of generality which the self from Part A has with non-self Part A figures is significantly greater than the mean degree of generality which non-self Part A figures have with one another (Hypothesis IX). However, this same direction of difference does not hold up for Part B figures (Hypothesis X). This may have been due to a flaw in the experimental design and, for this reason, the results of Hypothesis X cannot be taken too seriously. To test the hypothesis, we scanned all of the figures in Part B with the Part B portion of the self column. Then each Part B figure column (excluding the self) was scanned with every other Part B figure column. Then the mean match for each procedure was compared. Now, five incidents and five voids appear by chance in any non-self figure column. However, since the self was always compared or contrasted with two other figures in Part B, an incident appears in each cell of the self column two times out of three by chance. This means that, by chance alone, more incidents occur in the self column of Part B than in any other figure column of Part B. Hence, the generality which the self column in Part B has with other Part B figures cannot be compared meaningfully with the generality which Part B figures have with one another. Hypothesis VIII is contaminated with the same source of error and the results cannot be interpreted
unambiguously.

There is no reason to believe that the results concerning figure and construct generality may not be extended to other populations of fairly intelligent well-adjusted people. Jones' (36) research indicated that NP patients see themselves either as less like others or more like others than do normals. This suggests that our findings might not hold up as consistently among hospitalized patients. In fact, we would suspect that more disorganized patients than Jones used would tend to see themselves and others as almost completely unpredictable and unique. Thus, they would have many specific rather than generalized constructs.

Our findings are consistent with those of Newcomb (45) and Bieri (8) who have demonstrated that one normally assumes some congruence of one's own and another's perceptions in order to interact with that person. Moreover, our findings are consistent with those of Sheerer (59), Stock (64), and others who have demonstrated a relationship between attitudes toward self and attitudes toward others.

Another line of inquiry in this study was based on our reasoning that Part B (self) RQRT constructs will be more similar to one another than will Part A (non-self) constructs (see Chapter Three). Hypotheses II-2, III-2, and IV-2 provide tests of this proposal. We would expect, in line with the prediction, the mean degree of generality
which SC constructs have with Part A constructs to be greater than the mean degree of generality which Part A constructs have with one another (Hypothesis II-2). On the other hand, since self constructs are theorized to be more similar with respect to one another, we would not expect the mean degree of generality which the SC constructs have with Part B RCRT constructs to be greater than the mean degree of generality which Part B constructs have with one another (Hypothesis III-2). However, we would expect the mean degree of generality which SC constructs have with Part B constructs to be greater than the mean degree of generality which the SC constructs have with Part A constructs (Hypothesis IV-2). Hypothesis II-2 is supported; Hypothesis III-2 is not supported; and Hypothesis IV-2 is not supported. Therefore, we have evidence that self constructs are not different from non-self constructs. Although this finding is not in accord with our prediction, it does provide support for our previously mentioned interpretation that SC constructs are highly general with respect to role constructs. It makes no difference whether a person forms a construct on himself or whether he forms it on others. A person's perceptions of himself have distinct similarity to his perceptions of others and vice versa.

One final hypothesis remains to be discussed. We have found that college students see themselves as more similar
to their parents than they do to non-parents. Jones (26) found that NP male patients do not identify more with father than with mother whereas matched normals do. One interesting line of inquiry would be to determine if males identify more with father and females more with mother. In this study we did not have enough males to make the comparison. The few males we did have tended to identify with both parents equally.

It is quite possible that the greater identification of the self with parents than with non-parents is a phenomenon which is characteristic only of younger people who have not yet become independent of their families. In Rankian terms, they are still living in the first stage which precedes the establishment of individuality. Their ideals, their goals, their moral and ethical standards are those of their parents with whom they passively identify. In terms of the psychology of personal constructs, we might say that their predictions which are made on the basis of their personal constructs are repeatedly and consistently validated in the family milieu. And we would suspect that the predictions which are validated by parents are, by and large, the ones that their parents are accustomed to make. As these freshmen college students grow older, invalidating evidence from a number of sources outside of the family will necessitate some changes in
their system of conceptualizations about themselves. Perhaps, more emancipated adults would tend to see more lines of similarity between themselves and their spouses or close friends.

Another interesting result of this study is that we have not demonstrated whether any construct from a subject's self-characterization would have a high degree of generality with his RCRT constructs. It may not be necessary to use only superordinate self-characterization constructs which seem to contain the essence of a subject's self-identity. The fact that the degree of generality of the SC construct with RCRT constructs was not always greater than the degree of generality of random SC constructs suggests that when a subject encounters a construct that is relatively unfamiliar, he recasts it within his own construct system so that it assumes a great deal of meaning. Perhaps any construct from his own self-characterization would be easier to reinterpret and hence would have as great a degree of generality with his RCRT constructs as those SC constructs we had taken such pains to select.

On the other hand, the results based on those subjects whose self-characterizations were judged by the experimenter only were, for many hypotheses, more highly significant than for those subjects whose self-characterizations were judged by a panel of psychologists. Since the two
groups of subjects were comparable, there is some evidence to suggest that the nature of the constructs selected from the self-characterizations was of some importance.

The overall results indicate that the constructs which are elicited by a self-characterization and the constructs elicited by a form of the RCRT have generality at least with respect to other test situations. Shoemaker's (61) results suggested generality between constructs used in role-playing behavior and constructs elicited on a form of the RGRT. Hamilton (20) more clearly indicated construct generality between pictured figures and a form of the RCRT. These findings, taken together, suggest that a knowledge of a person's constructs is highly useful in predicting the way he will structure and consequently behave in many test and non-test situations.

Conclusions

The following conclusions appear to be justified from the results of this experiment:

1. Constructs elicited by a self-characterization and by the grid form of the RCRT have generality, at least with respect to other test situations. In other words, constructs elicited by those tests are not specific to the respective stimuli which elicited them. Therefore, there is increased confidence that constructs elicited by these tests will be similar to constructs used in non-test
situations.

2. A person's self-identifying constructs are highly similar to the constructs with which he abstracts certain aspects of the presumed thinking of others. In short, self constructs have a high degree of generality with role constructs.

3. Constructs which are formed on the self and then applied to others do not appear to be different from those which are formed on others and then applied to the self.

4. There is a tendency for fairly intelligent and well-adjusted adults to perceive other people as less similar to one another than to the self.

5. College students see themselves as more like their parents than like non-parents.
BIBLIOGRAPHY


APPENDIX A

The Modified Role Construct Repertory Test
ROLE CONSTRUCT REPERTORY TEST

Instructions

This test is comprised of three sheets: (1) the Test Sheet, (2) the Overlay Sheet, and (3) this Instruction Sheet.

1. **Start with the Overlay Sheet.** Beginning with your own name write the first names of the persons described. Write their names in the blanks to the left of the sheet. If you cannot remember a person's first name, write his last name or something about him which will clearly bring to your mind the person's identity. You may keep this Overlay Sheet. The examiner will be interested only in what you write on the Test Sheet.

2. **Next, lay the Overlay Sheet sidewise across the top of the Test Sheet so that the numbered blanks correspond to the numbered columns in the grid.** Note that the letters "M" and "F" appear at the heads of Columns 10 to 19, inclusive. If the person whose name appears at the top of Column 10 is a man, encircle the "M"; if a woman, encircle the "F". Do the same in the remaining columns.

3. **Now move the Overlay Sheet down over the Test Sheet until it is just above the first row of squares.** Note that three squares have circles in them. This means that you are to consider the three people whose names appear on your Overlay Sheet in the following three columns—Columns 3, 6, and 16. Think about these three people. Are two of them alike in some important way that distinguishes them from the third person? Keep thinking about them until you have remembered the important way in which two of them are alike and which sets them off from the third person.

When you have decided which two it is and the important way in which they are alike, put an "X" in the two circles corresponding to the two that are alike. Do not put any mark in the third circle.

Now write in the blank under "CONSTRUCT" the word or short phrase that tells how these two are alike.

Next write in the blank under "CONTRAST" what you consider to be the opposite of this characteristic.

4. **Now consider each of the other sixteen persons whose names appear at the heads of the sixteen columns which you have not yet considered.** In addition to the persons whom you have marked with an "X" which ones also have this important characteristic? Put a check mark ( )—not an "X"—under the name of each other person who has this important characteristic.

5. **Now slide the Overlay Sheet down to the second row.** Think about persons number 7, 12, and 16. These are the three people who have circles under their names. In what important way are two of these distinguished from the third? Put "X's" in the circles to show which two are alike. Write the Construct and the Contrast in the blanks at the right just as you did before. Then consider the other sixteen persons. Check the ones who also have the characteristic you have noted.

6. **Complete the test in the way you have done the first two rows.** Note that you are asked to fill in the blanks under CONSTRUCT and CONTRAST for the first twenty rows only. Do not write anything next to rows 21 and 22 until you are given further instructions. When you are all through, write your name and date on the Test Sheet and give it to the examiner. You may keep or destroy the other two sheets.
ROLE CONSTRUCT REPERTORY TEST
Overlay Sheet

1. Write your own first name in the first blank here.

2. Write the first name of your mother or the person who has played the part of your mother in the next blank.

3. Write the first name of your father or the person who has played the part of your father in the next blank.

4. Write the name of your brother nearest your own age, or the person who has played the part of such a brother.

5. Write the name of your sister nearest your own age, or the person who has played the part of such a sister.

6. Your wife (or husband) or closest present girl (boy) friend. Do not repeat the name of anyone listed above.

7. Your girl (boy) friend immediately preceding the person mentioned above. Do not repeat any names from this point on.

8. Your closest present friend of the same sex as yourself. Do not repeat names.

9. A close friend of the same sex in whom you have since been badly disillusioned. Do not repeat names.

10. A person with whom you have worked who, for some unexplainable reason, appeared to dislike you. Do not repeat names.

11. The person whom you would most like to help or for whom you feel sorry. Do not repeat names.

12. The person with whom you usually feel most uncomfortable. Do not repeat names.

13. The person whom you have met in the past six months whom you would most like to know better. Do not repeat names.

14. The teacher who influenced you most when you were in your teens. Do not repeat names.

15. The teacher whose point of view you have found most objectionable.
4. Write the name of your brother nearest your own age, or the person who has played the part of such a brother.

5. Write the name of your sister nearest your own age, or the person who has played the part of such a sister.

6. Your wife (or husband) or closest present girl (boy) friend. Do not repeat the name of anyone listed above.

7. Your girl (boy) friend immediately preceding the person mentioned above. Do not repeat any names from this point on.

8. Your closest present friend of the same sex as yourself. Do not repeat names.

9. A close friend of the same sex in whom you have since been badly disillusioned. Do not repeat names.

10. A person with whom you have worked who, for some unexplainable reason, appeared to dislike you. Do not repeat names.

11. The person whom you would most like to help or for whom you feel sorry. Do not repeat names.

12. The person with whom you usually feel most uncomfortable. Do not repeat names.

13. The person whom you have met in the past six months whom you would most like to know better. Do not repeat names.

14. The teacher who influenced you most when you were in your teens. Do not repeat names.

15. The teacher whose point of view you have found most objectionable. Do not repeat names.

16. An employer, supervisor, or officer under whom you served during a period of great stress. Do not repeat names.

17. The most successful person whom you know personally. Do not repeat names.

18. The happiest person whom you know personally. Do not repeat names.

19. The person known to you personally who appears to meet the highest ethical standards. Do not repeat names.
Sheet 3. RCRT Grid

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APPENDIX B

Sample Self-Characterizations Used in Pretest
As a child Joan was hypertensive, very active, and looked as if she were undernourished. When brother Rudolf went to school Joan wanted to go also. She enjoyed school the days she visited with him. She liked the years she spent in grade school and was glad to graduate because this meant new endeavors in the field of education, not because education itself was a challenge, but because it was taken for granted that she would graduate from high school.

When graduating from high school Joan had one ambition: to become a secretary. So after graduation she went to Cleveland and got a job. This is when she became conscious of people. Before that people were there and that was it. Now the actions of people caused curiosity in the mind of Joan. There was jealousy, distrust, and egocentrism among the persons that worked there. Everyone thought his job was the best and he wasn't receiving enough pay for it, they thought they weren't being promoted readily enough.

Now the question that was aroused by Joan was: what did they think they should have and why. They didn't seem to be as colossal as they thought they were. Their schooling seemed to be limited to High School plus some experience obtained while in the army. They seemed afraid of themselves, of their security, of the future of their jobs. This was the first source of motivation for going to college that Joan had.

After two years of working with this crowd the step was taken from office to college.

All the while Joan was in high school and the two years at the office she seemed like a very quiet, bashful person. One would think of her as having an inferiority complex.

During the first year at college it seems as if a complete personality turnover was made. I believe the cause of this turnover was due to the fact that at the office everyone was older and everyone had been around more. After getting to college Joan found that she was as intelligent as, around as much as, and the same age as the rest of the persons with whom she associated.

After being at college a short while she found out that she had concepts and insight into people about which students never realized were there.

The small college, Minur University, to which Joan went did not offer a solution to her lack of understanding of people. The religious sect did not offer the students a chance to be broadminded in regard to ideals and values, rather it approached the subject narrow-mindedly. They thought their own way was the only way. This was the stimulus to go to a larger school where there is a variety of people with a variety of beliefs. The dominant
challenge still seemed to be that of gaining an understanding of people.

An understanding of people caused Joan to have a basic distrust of people.

What a personality actually is and the way a person makes you believe it is are two entirely different appearances. It is hard to determine whether or not a person is being superficial or wholesome leaves cause for doubt. Joan uses this same sort of reasoning when dating fellows. If a fellow says something nice, he is probably just trying to be nice instead of truthful. Most people act this way. If there is something they don't like about you they rither (sic) tell someone else or pout about it rather than telling you about it.

Today Joan has this same distrust in people. They use people as means to an end rather than the end in itself. The purpose here being the gaining of security which the individual himself is lacking.

To offset the previous inferiority complex that Joan had she has become very aggressive, gregarious and finds no difficulty in making friends. But making friends is not building up trustworthy friendships.
William S is a well-meaning person who will try his best to do what is right. I would say he is a firm believer in the "golden rule," and adheres to principles of altruism.

There are two distinct sides to William, and oddly enough they are on opposite sides of the pole. To some people he is regarded as a jovial, humorous, and witty person, while to others he is serious, factual, and "professional." It would seem that he does this intentionally, and can control each mood. Above all, in both instances, he values and enjoys a sense of humor both in himself and in others.

He is ambitious and often shows creativity and initiative. He loves to talk, and at times is non-conforming. If he feels that he is expected to conform, he will do so. Since he loves to talk, he rather enjoys a good argument or debate. I often think he debates for the sake of discussion rather than to make a point. He is interested in talking about politics and religion, knowing that such discussion must never resolve itself into argumentation. At times he tends to be dogmatic, but it would seem that as of late he is learning to listen.

He is often amused by the amount of confidence people show in his ability and potentiality, and often wishes he had an equal amount of optimism.

He has a definite goal in life with respect to vocational aspiration. Although this goal has been sidetracked several times, he still aspires to accomplish this goal.

To know him is to understand him, and likewise to understand him is to know him. I say this because his first impressions are seldom an identification of his real self. This perhaps is one of his greatest shortcomings; yet knowing this, he really doesn't try to correct this. In cases where he becomes aware of giving a completely distorted impression, he will stop, and justify his attitude.

Since he genuinely likes people, he tries to make as many friends as possible, but doesn't try to develop bosom friends with every person he meets.

With the passing of years, he is becoming less interested in fun and is more concerned with the future. I'm sure, however, he hopes never to forget how to have a good time.

With his relations to the opposite sex, he doesn't appear to be too concerned about finding his "ideal" mate. He is confident that his marriage will be successful. He refuses to place any female on a pedestal, but accepts them as his equal.

He is financially generous with his means, and does not hesitate to spend on himself or others. Yet he
maintains economy and judgment.

He regards himself as being well-adjusted in terms of personality behavior. Above all, I feel that he understands himself enough to answer to his motives and actions.
To begin with an encompassing generalization, I would describe Tom West as an intellectually inclined person with at least an average amount of social ease. More specifically, he takes pride in being able to adapt adequately to nearly any of the situations which encounter (sic) socially or otherwise. In the company of others he is inclined to talk about matters of a nature removed from the area of "small talk" or idle gossip. At times he enjoys immensely the company of one or more persons who will engage in serious discussion on a broad range of topics. He feels that time is literally wasted upon the bantering of trite language on the "did you hear this?" level.

His interests are quite broad, ranging from serious literature to spots and manual arts. Among his active hobbies are painting (fine art), boat-building, furniture design and construction, flying, and skiing, and many others. He takes great pride in his talents and believes himself to be above average in the skills involved in his hobbies. He conceives these hobbies to be an extremely important and necessary part of his life and would probably consider himself quite a shallow person if he were otherwise. To Tom, the shallow man is the person who always just gets by, but lacks the imagination and ingenuity to make his life anything but drudgery.

Beneath the exterior person you will find an introspective and searching curiosity. He frequently tries to identify his various motives, anxieties, fears, etc. in an attempt to make better adjustments to whatever he may encounter. His attempts are rational enough, but not always successful. His tendency toward self-analysis seems to him to be fruitful especially with regard to his tolerance and understanding of others.

Tom appears to be quite unsentimental. This is probably not true. In reality, he feels that sentimentality is unbecoming the type of person he wants to be. He usually suppresses his feelings unless he can use them to create a desired effect.

One of his dominant characteristics is skepticism. He is critical of glibly spoken generalities and biased opinion. At times he becomes cynical about conventional things and ideas. He feels that his skepticism and cynicism are generally healthy states of mind and not a negative point of view.

Tom believes himself to be quite capable of accomplishing whatever he sets out to do. He is confident of his intelligence, and feels able to stand with the best of men. He also feels a slight intellectual superiority over many of his friends, and, as a result, sometimes paternal.

He believes that he is generally quite well liked by those who know him. He also feels that his serious-minded
appearance might have made some of the more casual friendships difficult or impossible. He has always enjoyed the company of the opposite sex and has been popular with them. Although he is married his female friendships have not decreased in number, though perhaps in intimacy. He has, at times, a generally romantic outlook concerning both the opposite sex and life in general.
APPENDIX C

Tables 7 through 14
Table 7
Mean Degree of Generality of the SC Construct and the Random SC Constructs with RCRT Constructs and Mean Degree of Generality of RCRT Constructs with One Another

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Mean Degree of Generality of the Self with Other RCRT Figures and Mean Degree of Generality of RCRT Figures with One Another

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Table 9

Mean Differences and t-Values for Experimental Hypotheses, N of 34

(Pooled data. Subjects 1-34)

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Note: + or - appear before a mean difference only for those hypotheses that predict a direction.
Table 10
Significance Levels of Experimental Findings, N of 34
(Pooled Data. Subjects 1-34)

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*Significant in a direction opposite to that predicted.
Table 11

Mean Differences and t-Values for Experimental Hypotheses, N of 24

(SC Protocols Judged by Panel of Psychologists.
Subjects 1-10; 18-31)

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Note: + or - appear before a mean difference only for those hypotheses that predict a direction.
Table 12
Significance Levels of Experimental Findings, N of 24
(SC Protocols Judged by a Panel of Psychologists.
Subjects 1-10; 18-31)

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*Significant in a direction opposite to that predicted.
Table 13

Mean Differences and t-Values for Experimental Hypotheses, N of 10

(50 Protocols Judged by Experimenter Only. Subjects 11-17; 32-34)

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Note: + or - appear before a mean difference only for those hypotheses that predict a direction.
Table 14

Significance Levels of Experimental Findings, N of 10

(SC Protocols Judged by Experimenter Only.
Subjects 11-17; 32-34)

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*Significant in a direction opposite to that predicted.
APPENDIX D

Short Cut Method for Determining Mean Intra-RCRT

Figure or Construct Generality
The following is a description of a short-cut method for determining either the mean match of each row in an RCRT with every other row or the mean match of each column with every other column. This method does not take reflections into account.

The amount of labor saved may best be illustrated by describing the conventional method for determining the mean match of, let us say, each column with every other column. First, column 1 is matched with columns 2 through n. Then column 2 is matched with columns 3 through n, and so on. Figure 1 shows the completed matrix. A matrix of n columns will have a total of n(n-1) permutations. However, since the match of column 3 with column 4, for example, is the same as the match of column 4 with column 3, it is necessary to work only with the number of combinations of matches. This is given by the formula \( \frac{n(n-1)}{2} \). The first step, then, is to match all possible combinations of columns. The next step is to sum the entries in each column and multiply the total by 2. This gives the sum of the matches of each column with every other. The complete formula for the mean match is:

\[
M_{\text{columns}} = \frac{2(\sum_{1}^{n-1})}{(n)(n-1)} \quad (1)
\]

Instead of matching a whole column with another whole column, the short-cut method involves matching each cell in
a row with every other cell in that row. This can best be communicated by a series of illustrations. Figure 2 shows a small matrix with 7 columns and 8 rows. (We will ignore for the time being the figures to the right of the grid). Let us start out by matching the cell in column 1, row 1, with every other cell in row 1. This cell is an incident and it matches the remaining incidents in the row 3 times. The cell in column 2, row 1, is a void, and it matches the remaining voids in the row 2 times. The cell in column 3, row 1, is an incident, and it matches the remaining incidents in the row 3 times. The same procedure is carried out with the rest of the cells in row 1. When row 1 is completed, each cell in row 2 is matched with every other cell in row 2, and so on.

Figure 3 shows the results of this matching. It should be clear from inspection of this Figure that the number of times an incident in any row matches the remaining incidents in the row is 1 less than the total number of incidents in that row. Likewise, the number of times a void in any row matches the remaining voids is 1 less than the total number of voids in the row.

The numbers to the right of Figure 3 show how the totals for each row are obtained. The numbers in the first column next to the grid are the incident totals for each row of the grid. The numbers in the third column next to
the grid are the void totals. The relationship between incidents and voids in any row may be expressed algebraically. Let \( X \) equal the sum of incidents in any row, and let \( n \) equal the number of columns in the grid. The total match of each cell in any row with the other cells in that row then becomes:

\[
T_{\text{row}} = (X)(X-1) + (n-X)(n-X-1)
\]

expanding:

\[
x^2 - X + n^2 - 2nX - n + X + X^2
\]

simplifying:

\[
2X^2 - 2nX + n^2 - n
\]

factoring:

\[
(n)(n-1) - 2(X)(n-X)
\]

This formula makes it necessary to know only the incident totals for each row and eliminates the cumbersome multiplications illustrated next to Figure 3. Let us take the incident total in the first row of Figure 3 and substitute it in the formula:

\[
T_{\text{row}} = (7)(6) - 2(4)(3)
\]

\[
= 18
\]

Now the problem remains to find the total number of matches of each column with every other column. Formula 2 may be summed as follows, letting \( r \) equal the number of rows in a grid:
Let us go back to Figure 2 to see how this works out. The numbers in the first column to the right of the grid are the incident totals for each row. The numbers in the second column to the right of the grid are the void totals for each row. The number 72 is the cumulative sum of the multiplications and is easily obtained on a calculator. Substituting in Formula 3:

\[ T_{\text{columns}} = (8)(7)(6) - 2(72) \]

\[ = 336 - 144 \]

\[ = 192 \]

The formula for the mean match of each column with every other column is simply:

\[ M_{\text{columns}} = \frac{mn(n-1) - 2\sum[X(n-X)]}{n(n-1)} \]
Figure 1

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Figure 2

Columns

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Figure 3

Rows

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</tbody>
</table>

30 32 32 23 30 24 21 = 192

Figure 3
I, Edward Gilbert Goodrich, was born in Cleveland, Ohio, January 14, 1928. I received my secondary school education in the public schools of Cleveland, Ohio. My undergraduate training was obtained at Western Reserve University, from which I received the degree Bachelor of Science in 1949. From the University of Toledo, I received the degree Master of Arts in 1951. While in residence at Ohio State University, I took my internship in clinical psychology at Chillicothe Veterans Administration Hospital and at the Columbus Veterans Administration Mental Hygiene Clinic.