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Theory and Methodology

By

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ERRATA

On page 16 of "Analysis of Nonreinforcement Variables Affecting Response Probability," by David Premack and George Collier in *Psychol. Monogr.*, 1962, 76(5, Whole No. 524) the last two sentences in the section Pretest Adaptation Time should read:

The latter may be a better than average possibility for Hill's curves were elevated at 0-hours deprivation, a value at which pretest adaptation time was high. The effect of pretest adaptation time may emerge clearly only when not in competition with a deprivation effect.

On page 17 of the same article the last five lines should read:

There appear to be no stimuli, additional to the light-contingent bar itself, that can be absented from the rat with the effect of increasing frequency of this response. Protracted dark maintenance had a decremental. . . .

Psychological Monographs: General and Applied

MEASUREMENT OF ADJUSTMENT IN ADOLESCENTS:

AN EXTENSION OF PERSONAL CONSTRUCT
THEORY AND METHODOLOGY¹SIDNEY KASPER²
University of Chicago

THE primary purpose of this study was to explore the validity and reliability of a modified Role Construct Repertory Test (RCRT) (Kelly, 1955) as a diagnostic instrument. Of ultimate concern is the potential application of the instrument as a research tool. The present study may also be regarded as an attempt to study a role construct technique for its applicability to younger populations. To date, the conventional RCRT has not received such attention.

The RCRT is an outgrowth of Kelly's (1955) Personal Construct Theory (PCT) and was first set forth as a method by which a person's construct system might be examined. A brief résumé of those aspects of PCT most relevant to the present study is in order at this point.

Every individual may be viewed as faced with the task of creating order in his phenomenal field. No person's thinking or perception can in reality remain completely fluid. Instead, people strive to lessen various complexities of the world about them. This

effort at simplification is a continuous process in which persons categorize or channelize so as to better anticipate and deal with those events of personal relevance.

Constructs (concepts) are the vehicles with which one proceeds to clarify and identify events and the means by which one predicts and attempts to control reality. Simultaneous with their application to events, the constructs are subjected to a test of their validity. Obviously, there are important differences between individuals relative to how they interpret or order their experiences and how they test their interpretations. People differ in the ways in which they predict events and also with respect to the criteria used for validation. The likelihood and extent of construct reorganization will in part vary with relative success or failure in achieving control. Implicit in this process is the presence or absence of learning. It is believed that each person may infinitely alter his interpretations of reality.

Some of the Construct's Characteristics

A construct is a way in which some things are judged to be alike and at the same time different from other things (Kelly, 1955). In this way the construct is regarded as equally relevant to those events or objects grouped "different" as it is to those grouped "alike." By way of illustration, we may consider the construct male vs. female. Obviously this construct is applicable to all people, to clothing, and to many forms of behavior. At the same time, its applicability is not conspicuous when conceptualizing food, a ball, or money.

According to Kelly a construct is conceived as being bipolar in nature, i.e., each construct may be thought of as a scale having limits

¹This paper is based on a dissertation submitted in partial fulfillment of the requirements for the PhD degree at the University of Chicago. The research was done while the author was affiliated with Evansville (Indiana) State Hospital and was in part supported by a grant (MY-2244) from the National Institute of Mental Health, National Institutes of Health, United States Public Health Service.

The author wishes to acknowledge the valuable interest and suggestions received from his dissertation advisory committee: Robert D. Hess, Helen L. Koch, and Benjamin D. Wright. Special thanks are also extended to former colleagues Spiro B. Mitsos, Robert W. Bauer, and Derwood E. Johnson for the variety of ways in which they helped implement this study.

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determined by two end points, the poles. These poles are always made up of "opposites" in meaning, whether evident or implied. Conventional logic would have the construct appear unipolar. Male and female might then be considered separate constructs, their respective opposites being *not male* and *not female*. The view of constructs as bipolar is felt by Kelly to be more consistent with our usual patterns of thinking, which tend to be more qualitative than quantitative. We have some tendency also to think in all-or-none terms.

People determine for themselves the manner in which they exercise control over events, this being accomplished chiefly through construct formation. The constructs are one's tools, for with them one tries to predict and manage events. Insofar as one controls construct formation, so does he determine the ways in which they are bipolarized. The constructs may be thought of as abstractions affording both controls and the potentiality of hypothesis formulation. The constructs are not hypotheses until they are invoked to account for certain objects or events. That is to say, the same construct may be applied in vastly different ways with different people. The construct, when used in formulation of an hypothesis, is refined so as to suit a particular situation. A construct, then, lends itself to numerous hypotheses.

It is probably true that an individual could not verbally express his entire construct system, i.e., some symbols are not available for articulation. It nevertheless seems reasonable to treat those constructs which are available to awareness as means by which the person categorizes and predicts in his universe.

One's functioning within his world is often directed by way of channels not available to verbalization but there are, at his disposal, definite verbalized dimensions which have been abstracted and which serve as guides to behavior. Inarticulate constructs, like other constructs, are conceived to be incorporated within the structure of one's organizational hold on the world. Kelly (1955) has described the organization process thus: "Each person characteristically evolves, for his convenience in anticipating events, a construction system embracing ordinal relationships

between constructs." The construction system is such that within it are many levels of ordinal relationships, some constructs subsuming other constructs and, these subsuming still others. Thus some constructs are superordinal while others are subordinal. This ordinal relationship is reversible inasmuch as the individual is free to order events and abstractions in accordance with experience.

Adolescent Period

In our attempt to use a modified RCRT with subadult subjects, we focused our attention on the adolescent. There were three major considerations prompting our decision. First, by working with the adolescent no major changes in the basic organization of the RCRT were required on the basis of immaturity. Second, a study of adolescent subjects would provide us with data from a group whose development immediately precedes the period of adulthood. Potentially, one might study developmental factors and the RCRT. Third, many writers have emphasized the "storm and stress" concept of adolescence. The various conflicts which arise during the adolescent period are often thought to be linked to contemporary social structure. Discontinuities in the socialization process, conflicts between generations, newly found physical and reproductive maturation without concomitant social sanctions, pressures for choice of a career, and efforts at achieving relative independence from the family—all are regarded as contributory influences to the crisis felt during adolescence (Davis, 1944; Engel, 1959).

The above factors are thought to bring a variety of intensified reactions, e.g., anxiety, conflict, and frustration. There is some feeling that "threat, frustration, deprivation and conflict are similar in many respects, [but] . . . that threat is the more fundamental concept cross-cutting the others. . . ." (Maslow, 1943).

Concept of Threat

There is reason to believe that under conditions of stress the categorization process may become "reckless" (Bruner, Goodnow, & Austin, 1956). One possibly important compo-

ment of the stress experience is that of threat. Insofar as the present study makes use of subjects who may be regarded as undergoing uniquely stressful experiences, the possible influence of threat upon behavior is a germane consideration.

The phenomenologists have been most explicit concerning the concept of threat. Rogers (1951) feels that those experiences which are "inconsistent with the organization or structure of the self may be perceived as threat." Snygg and Combs (1949) hold to a similar view. For them, feelings of self-adequacy are created by an absence of experiences inconsistent with the structure of self. Hogan (1952) elaborated upon Rogers' notion of threat by pointing out "when threat is spoken of, what is meant is threat to a related concept or value."

Of particular interest is the definition of threat embodied in PCT (Kelly, 1955). "Threat is the awareness of imminent comprehensive change in one's core constructs." The core constructs are crucial to the structure of self in that they serve to maintain one's identity and existence. Hogan's position is particularly compatible with PCT.

Landfield (1954), working from PCT, was able to measure and interpret a certain kind of threat in terms of the individual conception of self-change.

Self-movement refers to the direction of change in self-conceptualization, inferred from the different ways an individual describes himself (*a*) as he was in the past, (*b*) as he is now, (*c*) as he would like to be in the future (p. 529).

Two hypotheses, pertaining to the experience of threat, known as the "role hypothesis" and the "expectancy hypothesis," were subjected to test by Landfield. The role hypothesis predicted the threatening person would be perceived more like the subject was "in his own past or is now but no longer wants to be," than would be the nonthreatening person. The expectancy hypothesis predicted the threatening person would hold expectations for the subject more in accordance with what he "used to be, or is now but no longer wants to be," than would the nonthreatening person. Both hypotheses received substantiation.

Threat as Conceived in the Present Study

The concept of threat as used in the present investigation is based on Kelly's definition of threat, i.e., "threat is the awareness of imminent comprehensive change in one's core constructs." The methodological and conceptual approaches employed are outgrowths of a reformulation of Landfield's work. Landfield (1954) measured and interpreted threat on the basis of the perceiver's feeling that he was being seen "as he used to be, or is now, but no longer wants to be."

Beyond certain methodological changes to be discussed in a later section, it was theorized that other varieties of threat, which are also of importance to the perceiver, may be found in experiences which do not conform to Landfield's concept of threat. For example, it is conceivable that threat is engendered when the perceiver feels unwilling or incapable of attaining the level of performance presently expected of him by a significant other. Whether or not the perceiver chooses to respond as expected of him he will inevitably be viewed less favorably by a person whose opinions are of importance to him. All expressed discrepancies in self-rating are felt to constitute threat to the perceiver.

Threat may also be present even when the perceiver reports no difference in the numerical ratings assigned to him by others from those he assigns to himself. Identical numerical ratings have different meanings to the perceiver when the presence, absence, or direction of ongoing change is not identically perceived by a significant other. The importance of change or "movement" as a component in all situations where threat is experienced has previously been stressed by Landfield. All people may regard themselves as changing in a particular direction or not changing at all on any given construct. As conceived by the present writer, to be viewed by a significant other as (*a*) changing counter to one's aspirations; or (*b*) changing when change is not aspired to; or (*c*) not changing when change is aspired to, is threatening.

Freedom from threat on a particular construct requires congruence of the self-estimate and estimates of the self by others with respect to rating level, and direction of any ongoing change. Illustrations of the various

scorings for the presence or absence of threat are offered in the following section.

Inasmuch as threat may be viewed as a central concept in the description of stress, it was planned to study some of the other ways in which constructs may be used, either in the relative presence or absence of threat. The various tasks presented to each subject were intended also to yield data on the possible difference in construct usage associated with the various threat scores.

Hogan (1952), for example, has postulated that "the disturbance occasioned by threat requires that the individual do something to resolve the threat. Threat is a motivating factor of prime importance." According to Hogan, two alternative resolutions are possible, either changing experiences to fit the structure of self, or changing the structure of self to fit experience.

ROLE CONSTRUCT METHODOLOGIES

The RCRT requires the subject to sort people much as he might sort things in the conventional object sorting test. The persons to be characterized in the sorts are assumed to be among the most important in the life of the sorter. A representative list of these important people may be found below. The people are presented three at a time, in predetermined combinations, and the subject is asked to sort them with respect to similarities and differences thus: "In what important way are two of them alike but different from the third?" The result of the subject's groupings is a description with contrasting poles, known as a construct.

Kelly (1955) has suggested several ways in which the constructs may be used for diagnostic or other purposes. The RCRT as applied in this investigation follows Kelly's method to the point of obtaining a person's constructs. The constructs are then utilized somewhat differently than Kelly uses them.

The modified RCRT, in part, employs a method devised by Landfield (1954). The application of his method required subjects to rate themselves on the elicited constructs on a nine-point rating scale. The subjects were asked to describe what they were like in the past, what they are like now, and what they hope to be like in the future (see Figure 1). The subject hence indicated his beliefs and aspired self-changes over a prescribed period of time along each of his constructs.

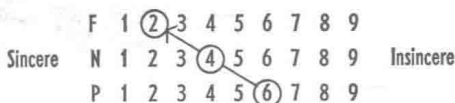


FIG. 1. Self-ratings for various life periods on the dimension Sincere-Insincere.

Landfield, who was concerned with studying "threat," confined his approach to comparing self-ratings with ratings expected from perceived threatening persons and ratings expected from perceived nonthreatening persons. A threatening acquaintance was "one whom an individual wishes to avoid or whose behavior he would like to modify greatly." A nonthreatening acquaintance was "one with whom an individual wishes to have contact and whose behavior he would not care to modify greatly." The Landfield method has been adapted to involve comparisons between self-ratings and the ratings expected from each of the people enumerated on the Role Title List. The Role Title List used for male subjects follows. Females received the same list except where otherwise indicated. In either event, all subjects supplied persons to fill the same role descriptions.

Role Title List

1. Write your own name here.
2. Write your mother's name here. If you grew up with a stepmother, write her name instead.
3. Write your father's name here. If you grew up with a stepfather, write his name instead.
4. Write the name of your brother who is nearest your own age. If you had no brother, write the name of a boy near your own age who has been most like a brother to you. (The order of Items 4 and 5 was reversed when presented to girls.)
5. Write the name of your sister who is nearest your own age. If you had no sister, write the name of a girl near your age who has been most like a sister to you.
6. Your closest present girl friend. (Girls listed a boy friend.)
7. The girl friend closest to you before the girl listed for Number 6. (Girls listed a boy friend.)
8. Your closest present boy friend. Do not repeat names. (Girls listed a girl friend.)
9. A boy friend who you once thought was a close friend but in whom you were badly disappointed later. Do not repeat names. (Girls listed a girl friend.)

From this point on indicate the sex (M or F) of the person named.

10. A person who, for some unexplained reason, appeared to dislike you. Do not repeat names.
11. A person whom you would most like to help or for whom you feel sorry. Do not repeat names.
12. A person with whom you usually feel most uncomfortable. Do not repeat names.
13. A person whom you have recently met

whom you would like to know better. Do not repeat names.

14. Your favorite teacher (past or present). Do not repeat names.

15. A teacher whom you dislike. Do not repeat names.

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

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

18. A person you know whom you admire more than anyone else. Do not repeat names.

Modified RCRT Procedure

1. The subject is requested to assign appropriate persons to the roles described on the Role Title List.

2. The subject is then presented with the 18 role figures in various combinations taken three at a time and is asked to sort them for similarities and differences. The elicited descriptions are hereafter identified as constructs.

The combinations of role figures have been arbitrarily determined so as to present each person with nearly equal frequency and along with a variety of other types of people, e.g., family members, intimates, and authority figures. The particular number of combinations used has been established on the basis of the above intentions and the need to limit the total time required for testing. The actual combinations of people who are sorted and the order of their presentation to the subject are listed in Figure 2.

| | | |
|--------------|--------------|-------------|
| 4 - 8 - 11 | 7 - 14 - 15 | 2 - 3 - 4 |
| 11 - 13 - 15 | 1 - 16 - 2 | 2 - 9 - 14 |
| 8 - 9 - 11 | 3 - 16 - 17 | 5 - 10 - 15 |
| 6 - 7 - 8 | 3 - 13 - 15 | 4 - 9 - 12 |
| 5 - 14 - 17 | 18 - 12 - 16 | 2 - 6 - 7 |
| 4 - 10 - 15 | 1 - 9 - 12 | 8 - 9 - 13 |
| 5 - 11 - 17 | 18 - 2 - 15 | 1 - 6 - 8 |
| 6 - 12 - 17 | 1 - 5 - 16 | 2 - 14 - 16 |
| 3 - 6 - 7 | 18 - 10 - 3 | 3 - 10 - 14 |
| 1 - 4 - 5 | 7 - 10 - 13 | 1 - 18 - 17 |
| | 18 - 11 - 13 | |

FIG. 2. Role Title Figure sorts and their order of presentation.

Occasionally, the role figures are differentiated on the basis of physical characteristics, e.g., tall vs. short, or on the basis of interests, e.g., interested in hot-rods vs. interested in sports. When such constructs are obtained, the subject is asked to think of other ways in which the role figures might be described, such as personality characteristics. However, the subjects are at no time offered illustrative "acceptable" constructs.

3. Whenever warranted the examiner attempts

to determine which of the elicited constructs may be regarded as essentially equivalent. A method first employed by Hunt (1951), and later described by Kelly (1955), is used to detect functional equivalence.

When the clinician suspects that two constructs are functionally equivalent in the mind of the subject he performs four tests for equivalence. For example, suppose that in one sort a subject gives "honest" as the construct and "dishonest" as the contrasting construct. In another sort he gives "trustworthy" as the construct and "not trustworthy" as the contrasting construct, perhaps involving the same person in the "honest" and "trustworthy" categories.

The examiner then re-presents the figures which elicited the construct of "trustworthy" and asks, "Which two of these are the more honest?"

Next the examiner asks, "Is a person who is honest almost always trustworthy?"

Finally he asks, "Is the person who is trustworthy almost always honest?"

If the subject gives positive evidence of functional equivalence on all four of these standards, the two constructs are classified by Hunt as being the same (p. 233).

One of the repetitious constructs is then eliminated from further consideration.

4. The different constructs are then prepared for presentation on special cards bearing rows of numbers from one through nine, the rows consecutively labeled "past," "now," and "future" (see Figure 1). Each pole of the construct is placed at the opposite extreme of a three-row series bearing the labels past, now, and future. The subject is asked to express his estimate of how he would be rated on each construct for the present by the people appearing on the Role Title List. Step 4, to this point only, is in keeping with the method employed by Landfield (1954). The subject is then asked to indicate the direction, if any, in which the people with different roles think he is changing. The entire group of constructs is presented for rating by one of the role figures before any ratings are obtained by the next role figure.

5. Each subject is then asked to indicate on each construct the ratings he himself regards as appropriate to his present status. Similarly, he is also requested to rate himself as he was 5 years ago and as he would like to be 5 years hence should ideal conditions prevail. These three ratings then permit plotting the subject's perceived and desired changes in himself, if any, over a 10-year time span. Step Number 5 is identical to the method used by Landfield, as is step Number 6.

6. Finally, each subject is asked to estimate the points along his constructs which represent his expectations of attainment in the ensuing 5-year period.

Figure 3 illustrates an actual protocol containing a subject's own ratings as well as his estimates of how he would be rated by his mother.

Sincere

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| N | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| P | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

(Mother's Rating)

N 1 2 3 4 5 6 7 8 9

Insincere

Makes friends easily

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| N | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| P | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

(Mother's Rating)

N 1 2 3 4 5 6 7 8 9

Introverted

Socially inclined

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| N | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| P | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

(Mother's Rating)

N 1 2 3 4 5 6 7 8 9

Self-centered

Stand up for what is right

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| N | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| P | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

(Mother's Rating)

N 1 2 3 4 5 6 7 8 9

Easily influenced

Easy going

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| N | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| P | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

(Mother's Rating)

N 1 2 3 4 5 6 7 8 9

Critical

Do things on impulse

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| N | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| P | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

(Mother's Rating)

N 1 2 3 4 5 6 7 8 9

Think before doing

Gives aid readily

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| N | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| P | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

(Mother's Rating)

N 1 2 3 4 5 6 7 8 9

Prodded to give aid

Stationary personality

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| N | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| P | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

(Mother's Rating)

N 1 2 3 4 5 6 7 8 9

Moody personality

Quiet, reserved

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| N | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| P | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

(Mother's Rating)

N 1 2 3 4 5 6 7 8 9

Forceful

Think quickly in tight situation

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| N | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| P | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

(Mother's Rating)

N 1 2 3 4 5 6 7 8 9

Nervous and illogical in tight situation

Choosey on friends' social status

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| N | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| P | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

(Mother's Rating)

N 1 2 3 4 5 6 7 8 9

Accepts anyone as friend

Backs up statements with action

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| N | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| P | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

(Mother's Rating)

N 1 2 3 4 5 6 7 8 9

Less inclined to follow-up

Figure 3—Continued

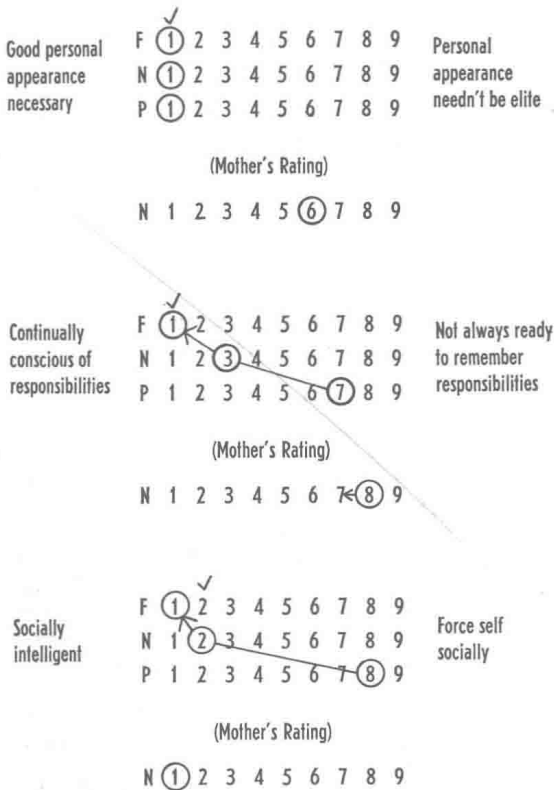


FIG. 3. Specimen of subject's self-estimates contrasted with ascribed estimates by mother.

Operational Definitions

1. Bidirectionality of Change (Movement)—This term is a description of those instances in which the ideal future aspiration on a particular construct constitutes a reversal from the direction of previous change. The rater, in other words, indicates a desire for repossession of a formerly held position on a certain construct dimension.

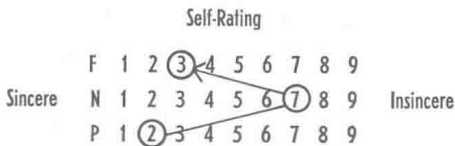


FIG. 4. Bidirectionality of change.

2. Threat—Although there are many kinds of threat, we shall take as evidence for threat and study "the manifest awareness of imminent comprehensive change in one's core constructs" (Kelly, 1955). To a great extent, a person's awareness of imminent change in his core constructs develops as a consequence of his experiences with certain other

persons. The individual experiencing threat from another person tends to perceive the threatening person as (a) ascribing to him a quality more characteristic of his past and not in the direction of his own estimate of his current progression.

This study has also observed what the present writer regards as two other forms of threat. (b) The rater regards himself as being relatively inferior to the position assigned him by others even when the latter is consistent with his perceived direction of movement. (c) The subject's perception of ongoing change or lack of ongoing change is discrepant with the perceived other's view of ongoing change or lack of ongoing change. Others, then, may be thought of as hindering or coercing one's movement, in either event threatening the current self-concept.

The scoring of threat in this investigation differs from that employed by Landfield (1954). Landfield regarded threat solely from the viewpoint of movement reversal, with reversal consisting of any rating by others more characteristic of one's past than one's present. Figure 5 illustrates the method for scoring the three types of threat which are here under study.

Hypotheses

All people are thought to aim at elaboration of their construct systems so as to maximize their facility for categorizing items and predicting events. One kind of threat involves a situation where a certain prediction concerning self is in danger of invalidation. Some people deny to awareness varying degrees of actual disagreement between self-conceptions and experience. Other people actually alter their construct systems because of acute awareness of existing discrepancies between self-concept and perceived evaluation from others. Both approaches serve to further the predictability of behavior and perhaps forestall identity changes. Both or either of the above procedures are expected to be used more extensively by subjects with poor adjustment.

1. In light of the above considerations, it is hypothesized that instances of low and high total discrepancies between self-rating and perceived others' ratings of self will be in greater evidence within the clinical subjects (CL) than within the well adjusted (WA) or poorly adjusted (PA) subjects. Similarly, it is expected that extreme scores will more often characterize the more PA subjects than WA subjects. The total number of discrepant ratings will comprise the estimate of total threat.

All people may be viewed as seeking maximization of predictive efficiency. It is expected that persons will differ in how they conceptualize their own change with respect to their constructs. In the presence of believed potential identity alterations, perceived movement is likely to appear extreme—either great or minimal—so as to facilitate maintenance of the identity under threat. Some, then, tend to overestimate themselves while others tend

to them either very few or a great many ongoing changes.

3. Adolescents in the CL sample will conceptualize their ideal aspirations and their future expectations so that the discrepancies between the two appear smaller than those found among either the WA or the PA subjects. Likewise, the PA subjects will more often conceptualize smaller discrepancies than will the WA subjects.

4. When counting the constructs bearing discrepancies between the present rating and the level of future expected attainment, disparities are expected in greater frequency as the different groups increase in pathology of adjustment. In other words, with increases in pathology subjects are more likely to anticipate some future change in their status.

Bidirectionality of change may be regarded as an expression on the part of the rater to relinquish a presently held position for a position on the same construct which is more in keeping with estimates of his past status. It is possible to regard these expressions of change as indicating self-perceived regression and desire for alterations in identity. Another possible interpretation of bidirectional change is the presence of marked ambivalence or indecisiveness. The individual having progressed toward one end of the continuum desires a change in the opposite direction. With an increase in the percentage of bidirectionally conceived self-changes a concomitant increase can be expected in the subject's level of discomfort. No causal relationship is here implied. The relationship between bidirectionality and discomfort is one of association.

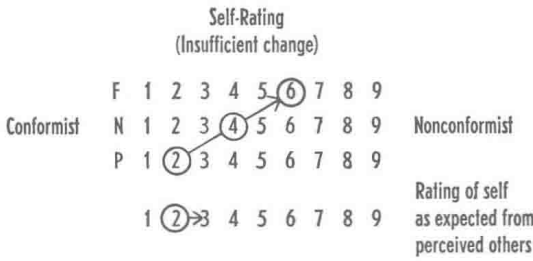
5. The highest percentages of estimates of bidirectional self-movement are expected within subjects in the CL sample. Higher percentages of bidirectional self-movement are also expected to occur more often among the PA subjects than among the WA subjects.

Adolescents within the CL sample can be assumed to have encountered and now to be encountering experiences with greater degrees of conflict than those adolescents comprising the control sample. These experiences may be thought to result in internalization or externalization of the responsible source(s). Some people generally regard experiences of conflict as indicative of self-failures while others generally ascribe the failure to the environment. The former are likely to hold low regard for self while the latter tend to maintain or overevaluate the position of the self. Ausubel (1954) reports higher self-valuation as a characteristic of the successfully developing adolescent.

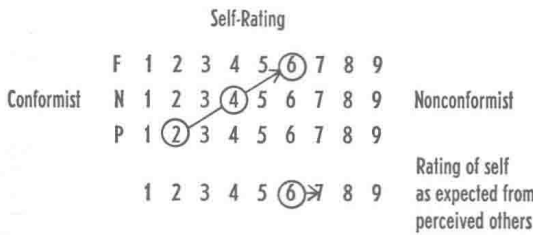
6. CL subjects, when compared with WA and PA subjects, will tend toward extreme categorizations of self-esteem on their constructs. The PA subjects will similarly tend to use extremes for self-categorization but to a lesser degree than CL subjects. More often the CL subjects, along with the PA subjects, will choose the extremes which indicate a lower estimation of self. Horney (1945)



5a. Threat stemming from ascribed negative change or insufficient change.



5b. Threat stemming from ascribed positive change which is excessive.



5c. Threat stemming from ascribed failure to change.

FIG. 5. Three types of threat.

to underestimate themselves. Both approaches are defensive processes which serve to prevent more basic changes in identity.

The above considerations permit the following hypotheses:

2. Adolescents in the CL sample will indicate with higher incidence that others view them to be relatively devoid of, or relatively marked by, change along their constructs. The PA subjects will be distinguishable from the WA subjects in that they will more often feel that others ascribe

has conceptualized the ultimate decline in self-esteem for the PA subject as related to his inability to accept his real self. As a result of the unacceptability of the real self, the ideal self is unrealistically glorified in a compensatory gesture. The ideal self, being unrealistic, is even more difficult to actualize and the outcome is continued failure and loss of self-esteem.

Status emphasis, during the period of adolescence, changes from parent centered to peer centered (Ausubel, 1954). Achieving independence from adult domination is a developmental task of the adolescent years and with successes in development it seems reasonable to expect an increased concentration of threatening people within the peer group itself. Any peer member perceived as coercing or preventing the achievement of status is likely to be viewed as threatening.

7. CL subjects are expected more often to experience more pervasive threat with one or both parental figures than are WA and PA subjects. That is to say, threat as experienced with these persons is expected to be more frequent and to involve a higher percentage of the constructs within their construct system. PA subjects are expected to indicate more frequent threat from parents than are WA subjects.

A summary of the predicted differences between groups is presented in Table 1.

Population to be Used

The modified RCRT is thought to be sensitive to personal differences which are related to overall adjustment or functioning. While perfect agreement among theorists is lacking, there is a general consensus as to some of the essential elements com-

mon to the "well adjusted" or "fully-functioning" individual. Some of these elements, borrowed largely from Rogers' (1953) description of the fully functioning adult, were here used in describing the fully-functioning adolescent so that the judges would be familiar with the criteria to be used for selecting the best and poorest adjusted among their pupils. A discussion period with the judges was devoted to developing an understanding of the concept of adjustment.

A list of students, ranging in age from 15 through 17, was compiled and circulated among four interested teachers. The teachers indicated those subjects with whom sufficient prior contact would now permit ratings of their overall level of functioning. Two of the teachers were ultimately selected as raters on the basis of their both being acquainted with the same students. The students known to these two teachers numbered 136. Both of the other teachers proved to be familiar with only a small percentage of the class membership.

Following a general discussion of adjustment, each teacher sorted the 136 students into one of the following five categories: 1—extremely good adjustment, 2—better than average adjustment, 3—satisfactory adjustment, 4—less than average adjustment, and 5—extremely poor adjustment.

Each subject placed in Categories 1 and 5, for whom there existed perfect agreement between raters, was included in the group defined as best adjusted or the group defined as poorest adjusted. It was intended to include at least 10 cases in each group. However, not enough cases were located who were given identical extreme ratings by both teachers. The teachers were in perfect agreement on only two WA subjects (Category 1) and five PA subjects (Category 5). Additional cases were obtained by using all subjects with combined ratings of nine or three, i.e., the subjects who were placed by each rater at the extreme or nearly so, thus differing by only one point in teachers' rating. The WA and PA subjects, after dropouts resulting from illness or school transfers, numbered 15 and 11, respectively.

A third group of subjects was comprised of 10 cases, 15, 16, and 17 years of age, judged by a psychologist or psychiatrist to be emotionally disturbed and in need of treatment. Eight subjects in this group were selected in the order of their admission to the state hospital or child guidance center. One subject was recommended by a reading clinic of the local college. All brain damaged and/or psychotic cases were excluded. The group then represented psychoneurotics and other adolescents whose disturbances reflected serious failures in socialization.

Each subject was ascertained on the basis of psychological testing to be of average or higher intelligence. All of the subjects in the WA and PA groups had been previously evaluated by the public school system through use of paper and pencil tests at different times in their scholastic career. The cumulative school records for each

TABLE 1

PREDICTED SCORE DIFFERENCES BETWEEN GROUPS

| Measures | Predicted differences |
|-------------------------------------|--|
| Bidirectional change | CL scores largest; WA scores smallest |
| Total threat | CL scores most extreme; WA scores least extreme |
| Future ideal vs. future expected | CL discrepancies smallest; WA discrepancies largest |
| Movement or change | CL scores most extreme; WA scores least extreme |
| Self-esteem | CL scores most extreme; WA scores least extreme |
| Expectation of change | CL expect greatest number of changes; WA expect least number of changes |
| Parental threat | A parental figure as the most threatening person will be most frequent among CL subjects and least frequent among WA subjects. |

subject contained the necessary information regarding level of intelligence. The one subject referred by a psychiatrist was a student at the same school from which the WA and PA subjects were obtained. The same subject was not rated by the two judges as she was not known to them. Hence, the school records were also consulted for information on this subject.

All of the remaining CL cases were evaluated individually by a psychologist who used whatever test of intellectual functioning he held to be appropriate.

The social class composition of the two major groups under study was not identical. Hospital and guidance center referrals were predominantly from the working class while the adolescents at the high school sampled were predominantly middle class. However, both the clinical and the high school groups did contain, respectively, smaller numbers of middle class and working class members.

An earlier pilot investigation, with an earlier version of the modified RCRT, suggested no systematic differences within or between clinical and normal groups which might be attributable to social class status. For the purpose of this investigation, then, no attempt was made to limit our samples to any one social class grouping.

ANALYSIS OF THE DATA

Each of the variables, discussed under Hypotheses, was subjected to between groups analysis. The following enumerations represent the separate ways in which the obtained data were organized.

1. The percentage of total threat (TT) is the ratio between the total number of threat occurrences and the total possible threat occurrences. The number of possible occurrences is the number of people listed by role, other than self (17), times the number of constructs obtained from a given subject.

The total threat frequency is obtained from all disagreements in rating or direction of future change between that which is ascribed to self and that which is thought to be ascribed to self by all of the other role title figures.

As an illustration, we may refer to the data in Figure 3 to note the discrepancies in rating between "self's" own estimates and those estimates thought to be ascribed to self by mother. Taking both the numerical rating and the direction of ideal future change into account, the total number of deviations is 12. In this same way, the total number of discrepancies is obtained between self-estimates and the estimates ascribed to self by all other persons appearing on the Role Title List. The sum total of discrepancies represents the total number of threat occurrences. This number is converted to a percentage score in the manner described above.

2. The percentage of "directional" threat (DT) is the ratio between the total number of directional threat occurrences and the total possible threat occurrences. The number of possible occurrences is the number of people listed by role, other than

self (17), times the number of constructs obtained from a given subject.

The directional threat frequency is obtained: (a) from all disagreements in rating where self's estimates exceed the estimates thought to be ascribed to self by each of the other role figures, (b) from all disagreements on the presence or direction of ongoing change as derived from comparisons of self's estimates with the estimates thought to be ascribed to self by each of the other role figures. DT has been previously illustrated in Figures 5a and 5c.

As a scoring application, we may again refer to Figure 3 for a comparison of self's estimates with those estimates thought to be ascribed to self by mother. The presence of directional threat is seen on Constructs 5, 7, 9, 11, and 14. The total frequency of all such discrepancies between self-estimates and the estimates thought to be ascribed to self by all other persons is converted to a percentage score as already described above.

3. A measure of self-esteem (SE) is derived from the congruence between the subject's estimates of present self and future-ideal self on all of his constructs. The score of this measure is expressed as a ratio between the estimates of present status and future-ideal status.

Any individual may segment a construct in any manner which has meaning for him, so that the ideal position on any construct need not necessarily be designated as a "1" or a "9." It is assumed however, that the particular rating selected for an ideal is conceptualized as a maximum score on any given construct. Using this assumption, it is possible to interpret the relationship between the present and future-ideal self-estimates as an expression by the individual of his proximity to the ideal. The relationship between the two estimates may be regarded as an index of self-esteem.

The index of self-esteem is represented by the following ratio:

$$SE = \frac{(N \text{ Constructs}) (8) - \Sigma \text{ of the self-ideal deviations}}{(N \text{ Constructs}) (8)}$$

where: *N Constructs* refers to the number of constructs obtained from the subject

and: *8* represents the ideal rating on any construct. We may again refer to Figure 3 for an illustration of how SE is computed. The self-future-ideal estimates differ as follows:

Construct 1 = one point

Construct 2 = no difference

Construct 3 = one point

Construct 4 = two points

and so forth.

The sum of the differences equals 28.

$$\text{Applying the formula: } SE = \frac{(15) (8) - 28}{(15) (8)}$$

$$SE = 77$$

The SE score is 77%.

4. All of the constructs for each subject were evaluated for the presence of a bidirectional pattern (BI) in the estimates of past, present, and future-ideal. The subject's score is presented as the percentage of constructs from all of those available which are characterized by the directional pattern of ratings.

In the case of the protocol illustrated in Figure 3, the total frequency of bidirectional patterns is four. Dividing four by the total number of elicited constructs (15), the quotient is .27. The score is 27%.

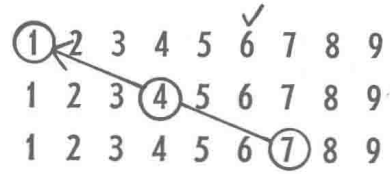
5. The subject's score on the variable of movement (M), or change, is the ratio between the total number of times the perceived others are thought to view the subject as changing and the number of possible instances of such believed change (number of role figures times number of the subject's constructs).

The sample protocol in Figure 3 permits illustration of the scoring of ascribed change as concerns mother's believed views. The subject believes that mother views him to be changing with respect to the behavior represented on Constructs 3, 4, 5, 6, and 8. If the same frequency of believed changes were to prevail in the expected views of all other role figures the score on this variable would then be 33%.

6. A measure, no future change expected (NFC), of the subject's expectation that his future rating will not be different from his present rating may be computed as the ratio between the number of instances of no expected change and the number of possible occurrences. The NFC measure indicates the proportion of self-estimates which are not expected to change. With reference to the sample protocol in Figure 3, the subject believes he will not change on Constructs 2, 3, 5, 6, 8, 10, 14, and 15. The NFC score for this person is 53%.

7. The subject's estimates concerning the likelihood of attaining his ideal goals on his constructs is indicated in the discrepancies between the ideal-future and the expected-future (I-E). The I-E score is the ratio between the discrepancies on all constructs and the maximum differences possible (the subject's number of constructs times eight). Applying this measure to the sample protocol referred to previously, the score is 11%.

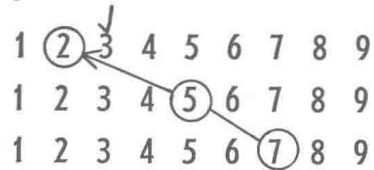
The estimate of future-expectation has relevancy to both the estimate of the present rating and the estimate of the future-ideal rating. As regards the vast majority of ratings on these three variables, the size of the discrepancy between future-expectation and future-ideal will tend to increase as the discrepancy between future-expectation and present rating decreases, and vice versa. There are some instances in which the inverse relationship does not hold. One of the exceptions to the usual inverse relationship occurs when the estimated future expectation represents change in an undesirable direction, such as the following:



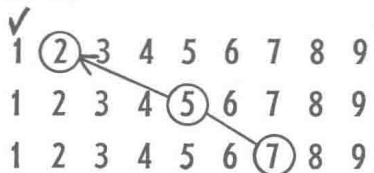
Despite the quantitative similarity in discrepancy scores, there is a qualitative difference between an expected rating of two and an expected rating of six. It was intended to give added weight to expected ratings which constitute change in an undesirable direction. Therefore, the relationship between future-expected and future-ideal estimates was deemed more suitable a measure than the relationship between the present and future-expected estimates. The discrepancy between the ratings illustrated above is scored as five rather than two.

There is undoubtedly an important difference between identical discrepancy totals which on the one hand derive from estimated failures to change enough and on the other hand derive from estimated changes which exceed the desirable level of change.

For example:



(as opposed to):



The expectation of excessive change in the desired direction is thought to occur very infrequently. Another infrequent occurrence is the expected loss of status seen in the following:



No special consideration has been given to these infrequently observed differences. The major concerns have been with the size and the different directions of the expected changes. The deviations in ratings have been summed, regardless of type.

8. The total frequency was determined for the number of constructs (NC) elicited from each subject. This aspect of the obtained data was not

originally proposed for study but, instead, became of interest during a later phase of the investigation. As the collection of data progressed it became increasingly evident that lower construct productivity might be related to the presence of maladjustment or even to social class status.

9. The total threat frequency from each parent (PT) was compared with the total threat frequency from each of 10 other role figures described on the Role Title List. The comparisons were designed to determine those cases in which a parent is the most threatening figure among those listed. Role Figures 7, 9, 10, 12, and 15, as indicated on the above list, were excluded from comparison as it seemed that higher threat scores might be expected from these persons on an a priori basis, i.e., inasmuch as the subject has designated these persons as individuals with whom he relates rather poorly it is quite possible that the strained relationships are simultaneous with or consequents of considerable threat for the subject.

10. The scores on each variable were grouped so as to permit within-adjustment group comparisons between the sexes.

11. The scores on each variable were grouped so as to permit within-adjustment group comparisons between the middle class and working class subjects.

Reliability

Hunt (1951) in a preliminary study of RCRT consistency confined his efforts to a study of construct repetitiveness by a parallel forms test procedure. He studied the responses of small samples of college students and hospitalized patients under the following conditions. The tests and retests were separated by a one-week interval and all subjects responded to a different Role Title List at the time of retest. The two lists were designed to be similar with respect to the kinds of roles specified, e.g., sex, liking-disliking, relatives, authority figures, and persons known during adolescence.

The agreement in constructs used on the two test occasions was: hospital patients—average percent of agreement 69, standard deviation six; college students—average percent of agreement 70, standard deviation less than eight. Kelly (1955) reports the number of similar role figure sorts producing the same constructs on the parallel forms as apparently even higher in percent of agreement than that reported for the two test forms irrespective of the particular sorts. Kelly's inference is based entirely on inspection of Hunt's data. Hunt was, at the time, not concerned with the aspect of consistency cited by Kelly.

Mitsos (1958), using two randomly selected, small samples of psychiatric aides, studied one facet of the relationship between the type of Role Title List used and the repetitiveness of constructs. One group of subjects was asked to perform 22 sorts of 19 people on the conventional Role Title List taken three at a time. These sorts included mother,

father, self, best friend, best liked teacher, and so forth. The other group was asked to perform 22 sorts of 19 friends taken three at a time. Following a 3-month interval, 9 of the 10 individuals in the group which sorted from the conventional Role Title List repeated a significant number of constructs. In the group which produced constructs by sorting friends, only 2 of the 10 subjects repeated a significant number of constructs.

A question arose as to whether the test results were the outcome of obtaining the same people on each application of the conventional Role Title List but different friends in each application of the modified Role Title List. To clarify the findings, the latter group was reexamined after an additional interval of 3 months. This time the group used the identical list of 19 friends specified at the time of the second administration. Three of 10 subjects repeated significant numbers of constructs.

The results of the Hunt (1951) and Mitsos (1958) studies suggest at least tentative consistency of construct productions when sorting the kinds of persons described on the conventional Role Title List.

The present study did not address itself to the repetitiveness of constructs from one test situation to another. Instead, it was sought to determine the consistency in usage of the same constructs when applied to the same persons following a 2- to 3-week interval. Since the samples used in this study are not directly comparable to those used by Hunt or Mitsos it is not possible to assume that adolescents are equally consistent with college students, psychiatric aides, or psychiatric patients. However, the studies by Hunt and Mitsos may also be regarded as demonstrating consistency in widely different kinds of subjects. Hence, it is possible to infer that adolescent subjects may be little different with respect to their consistency in producing certain constructs.

The reliability of the test results was determined by retest with five subjects in each group. Retest cases were obtained on the basis of the first five subjects available for testing from each group. The order of subject referral was not known in advance.

The reliability estimates were derived by two different methods. (a) The test-retest scores were correlated to determine the extent of intraindividual consistency on each variable contributing to the total score, excepting parental threat. That is to say, the test-retest scores were obtained on the variables identified previously as TT, DT, BI, SE, I-E, M, NFC, and NC. The exclusion of parental threat from the above evaluation is explained in the Results section. Ratings were classified as "pathognomic" or "nonpathognomic" in terms of the cutting scores adopted as discriminating best between adjustment groups. Consistency was then interpreted in terms of category agreement between the two sets of scores from each person in each group, and for the three groups combined. (b) The test-retest scores were also correlated to determine the interindividual consistency of scores on each variable for all of the 15 retest cases.

Inasmuch as the denominator of each score ratio varies in accordance with the number of constructs elicited from the subject, one may raise the question of the relationship between number of constructs and score consistency. An analysis was made of the number of times each of the 15 retest cases changed in categorization from pathognomic to nonpathognomic or vice versa for each of the scored variables. The relationship between the consistency of a subject's scores as determined by the agreement between their test and retest classifications, and the number of constructs initially elicited from the subject, will be discussed in the section on Results.

Validity

The validity of the modified RCRT was studied on three levels:

1. The internal validity of the modified test was evaluated by comparing the subjects' expected ratings from two groups of persons appearing on the Role Title List, one of the groups representing positively valued persons and the other group representing negatively valued persons. Experiences of threat with persons of negative valence, e.g., Numbers 9, 10, 12, and 15 on the Role Title List were expected to be higher in frequency than threat experiences with persons of positive valence, e.g., Numbers 6, 8, 14, and 18 on the same list.

The decision to measure internal validity by way of the above comparisons was prompted by the following considerations. When the subject designates a certain person, from all persons known to him, as the one person who best fits the specifications listed for a given "negative" role, it is reasonable to assume that the relationships between the subject and the person selected are characterized by discomfort. The assumed discomfort may be the result of experiencing a great deal of threat from the negatively perceived persons. The persons assigned to more positive roles are not so likely to represent persons with whom the subject has a difficult relationship. Put another way, it may be expected that a subject's views of himself will be in closer congruence with the expected ratings from "positively" identified persons than with the expected ratings from "negatively" identified persons. This does not mean that any positively designated person can be expected to be less threatening to the subject than any negatively designated person. Rather, it means that, in general, a group of positively valued persons can be expected to be less threatening than a group of negatively valued persons.

2. The dichotomization of high school subjects into "very well adjusted" and "poorly adjusted" adolescents served as an external criterion based upon the agreement of two teachers. Agreement with the criterion was determined on the basis of the significance of group differences when the subjects were grouped according to their totals of pathognomic scores.

The totals of pathognomic scores are rather global measures of adjustment. That is to say, the total scores do not permit an examination of the relationship between the external criterion and the different variables contributing to the total score. However, a more detailed evaluation of the relative influences of the different variables on the total pathognomic score will be found in the Results section.

3. The face validity of the groupings of adolescents into clinical and normal populations served as a criterion to be related with the test results. The extent of agreement with the criterion was determined on the basis of the total number of pathognomic indicators within each subject's protocol.

RESULTS AND DISCUSSION

Agreement between Teachers on Ratings of Pupil Adjustment

The ratings of the entire 136 high school subjects served as an external criterion of adjustment. A vital consideration, then, was the extent to which the two judges were able to agree on the ratings for all subjects. The index of order association, h (Wallis & Roberts, 1956), was used to measure the relationship between the pairs of ratings. Both ratings for all subjects are shown in Table 2.

The order of association between the ratings obtained from two judges is represented by $h = .51$. For an $N = 136$, and under conditions where the true H is zero, the standard

TABLE 2
DISTRIBUTION OF RATINGS FOR ALL SUBJECTS
BY TWO RATERS

| | | Rater 1: Male | | | | | |
|--------------------|---|---------------|----|----|----|----|-----|
| | | 1 | 2 | 3 | 4 | 5 | |
| Rater 2: Female | 1 | 2 | 4 | 1 | 0 | 0 | 7 |
| | 2 | 11 | 17 | 14 | 2 | 1 | 45 |
| | 3 | 5 | 18 | 13 | 10 | 7 | 53 |
| | 4 | 2 | 5 | 4 | 5 | 6 | 22 |
| | 5 | 0 | 0 | 2 | 2 | 5 | 9 |
| | | 20 | 44 | 34 | 19 | 19 | 136 |

error .16 permits considerable dispersion of sample coefficients. In reality, while the true H is unknown it may be expected to be somewhat greater than zero. The $\sigma_h = .16$ represents a maximum estimate of the variability associated with the total number of ratings. The coefficient of .51 may be regarded as an estimate of the relationship between two sets of ratings derived under conditions similar to those prevailing in this study.

The probability that the .51 coefficient of association is significantly different from zero has been determined by use of k . A k of 3.12 under the unit area of the normal curve may be regarded as very significant ($p < .001$).

The S:D ratio indicates the paired ratings for each subject are in the same order in 75% of the cases. The raters may be said to be in agreement on 75% of the cases.

The shaded areas in Table 2 indicate the subjects who were ultimately selected for study. The selection of these subjects insured that there would be no overlap between the WA and PA groups. These shaded areas have an $h = 1.00$. That is to say, the two raters' judgments for the 30 subjects represented in the shaded portions are in the same order.

The numbers above and below the diagonal indicate essentially similar frequencies for each of the two judges as regards the number of cases in which they rate subjects uniformly higher or lower.

Rater Agreement on Adjustment of Males vs. Females

The parent population from which WA and PA subjects were drawn was composed of 75 females and 61 males. The ratings obtained from the two judges for each subject were studied for association after separating the parent population by sex. In other words, an analysis of the data was addressed to the question of whether either of the judges was partial to either of the sex groups. Tables 3 and 4 show the distribution of ratings by the two judges for all female and male subjects, respectively.

With respect to those subjects on whom the judges disagree, there is no systematic

TABLE 3
DISTRIBUTION OF RATINGS FOR FEMALE SUBJECTS
BY TWO RATERS

| | | Rater 1: Male | | | | | |
|--------------------|---|---------------|----|----|----|---|----|
| | | 1 | 2 | 3 | 4 | 5 | |
| Rater 2: Female | 1 | 2 | 0 | 0 | 0 | 0 | 2 |
| | 2 | 10 | 14 | 7 | 2 | 0 | 33 |
| | 3 | 2 | 10 | 7 | 8 | 3 | 30 |
| | 4 | 2 | 1 | 3 | 1 | 1 | 8 |
| | 5 | 0 | 0 | 0 | 1 | 1 | 2 |
| | | 16 | 25 | 17 | 12 | 5 | 75 |

preference for girls ($p = .16$) or boys ($p = .33$) on the part of either judge. The differences in the frequency with which either judge favors one sex to the other may be attributable to chance factors.

Sex Differences of the Two Extreme Adjustment Groups

The shaded portions of Table 2 indicate those subjects who were ultimately selected

TABLE 4
DISTRIBUTION OF RATINGS FOR MALE SUBJECTS
BY TWO RATERS

| | | Rater 1: Male | | | | | |
|--------------------|---|---------------|----|----|---|----|----|
| | | 1 | 2 | 3 | 4 | 5 | |
| Rater 2: Female | 1 | 0 | 4 | 1 | 0 | 0 | 5 |
| | 2 | 1 | 3 | 7 | 0 | 1 | 12 |
| | 3 | 3 | 8 | 6 | 2 | 4 | 23 |
| | 4 | 0 | 4 | 1 | 4 | 5 | 14 |
| | 5 | 0 | 0 | 2 | 1 | 4 | 7 |
| | | 4 | 19 | 17 | 7 | 14 | 61 |