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## A Sentence Completion Measure for the Intimacy Motive

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A SENTENCE COMPLETION MEASURE  
FOR THE INTIMACY MOTIVE

by

Theodore Constantine Bililies

A Thesis Submitted to the Faculty of the Graduate School  
of Loyola University of Chicago in Partial Fulfillment  
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## VITA

The author, Theodore Constantine Bililies, is the son of Charles and Alice (Anagnoson) Bililies. He was born September 25, 1958, in Boston, Massachusetts.

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## TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS . . . . .	ii
VITA . . . . .	iii
LIST OF TABLES . . . . .	vi
CONTENTS OF APPENDICES . . . . .	vii
 Chapter	
I. INTRODUCTION . . . . .	1
II. REVIEW OF RELATED LITERATURE . . . . .	5
Defining a Motive . . . . .	5
The Intimacy Motive . . . . .	12
Origin and Definition of Intimacy Motivation . . . . .	12
Derivation of the Scoring System . . . . .	16
Arousal Experiments . . . . .	17
Development of Scoring Categories . . . . .	20
The Scoring System . . . . .	21
Validation Studies . . . . .	26
The TAT Measure . . . . .	38
Criticism of the Measure . . . . .	38
Rebuttals by McClelland and Atkinson . . . . .	46
The Sentence Completion Measure . . . . .	56
Recent Research w/the Sentence Completion Test . . . . .	59
Experimental Hypotheses . . . . .	64
III. DERIVATION OF THE SCORING SYSTEM . . . . .	66
Method . . . . .	66
Results . . . . .	68
Discussion . . . . .	84
Similarities Between the Two Measures . . . . .	84
Differences Between the Two Measures . . . . .	85
IV. TESTING THE SCORING SYSTEM . . . . .	90
Method . . . . .	90
Results . . . . .	94
Reliability . . . . .	94
Hypothesis 1 . . . . .	94
Hypothesis 2 . . . . .	96
Other Results . . . . .	97
Discussion . . . . .	104
The TAT and the Sentence Completion Test . . . . .	104
The Selected Treatment . . . . .	109
The Meaning of Intimacy Motivation . . . . .	110

REFERENCES	. . . . .	113
APPENDIX A	. . . . .	122
APPENDIX B	. . . . .	129
APPENDIX C	. . . . .	131
APPENDIX D	. . . . .	137
APPENDIX E	. . . . .	140
APPENDIX F	. . . . .	145
APPENDIX G	. . . . .	147
APPENDIX H	. . . . .	150

## LIST OF TABLES

	Page
Table	
1. Correlations Among Variables Measured in Session 1 . . . . .	100
2. Correlations Among Variables Measured in Session 2 . . . . .	101
3. Mean Scores on Variables at Time 1 and Time 2 . . . . .	102
4. Correlations Between Final Evaluations and Measured Variables from Session 2 . . . . .	103

## CONTENTS FOR APPENDICES

	Page
APPENDIX A Sentence Completion Forms . . . . .	122
I. Sentence Completion Stems - Males . . . . .	123
II. Sentence Completion Stems - Females . . . . .	125
III. Sentence Completion Stems - Final Form . . . . .	127
APPENDIX B Consent Form . . . . .	129
APPENDIX C TAT Pictures . . . . .	131
APPENDIX D Adjective Check List Form . . . . .	137
APPENDIX E Personality Research Form . . . . .	140
APPENDIX F Liking People Scale . . . . .	145
APPENDIX G Student Evaluation Form . . . . .	147
APPENDIX H Original Data . . . . .	150
I. Raw Scores on Variables Measured in Session 1	151
II. Raw Scores on Variables Measured in Session 2	152



## CHAPTER I

### INTRODUCTION

The study of human motives received major theoretical and methodological impetus from the work of Henry Murray (1938). With the publication of Explorations in Personality, Murray and his collaborators offered multiple insights into the specific motives (or needs) inherent in human beings, how these motives affect behavior, and how they might be measured.

The assessment of individual motives has been accomplished through several different methods: self-report questionnaires, ratings by trained observers, behavioral measures, and projective techniques (McClelland, 1958). The most popular method used in this last category of projective, or fantasy-based, techniques has been the Thematic Apperception Test (TAT). This method, first developed by Murray, reflects an underlying assumption in motive research that individual motives may have effects on fantasy, and that a method of measuring motives in fantasy might allow for a more accurate or purer assessment of human motives (McClelland, 1951, 1958). As Sigmund Freud observed, "Human motives are most clearly expressed in free associative thought (Atkinson, 1958, p.1)."

The non-projective methods or techniques of motive assessment may allow factors unrelated to the motive in question to be inadvertently measured. For example, a self-report exercise designed to measure a particular motive may also measure the task and experimenter demands on the subject, the conscious beliefs of the subject, or any number of other variables. These unrelated variables, especially present in "objective" measures of motives, serve to confound a motive score and often do not accurately represent motive strength.

In the TAT, one taps the imaginative productions of individuals and, through the analysis of these thought samples, can determine an index of motive strength which is less constrained by confounding variables such as conscious distortion, task demands, etc. (McClelland, 1951). This fantasy-based method of motive assessment has been an essential tool in the study of motives such as achievement, power, and affiliation (e.g., Atkinson, 1958). Recently, the TAT has also been used in the assessment of a new motive: the intimacy motive.

In comparison with the TAT, other fantasy-based measures of motives have appeared less frequently in the research literature. There is an obvious lack in the literature of alternative projective methods for assessing human motives, a fact which is only recently being ameliorated (cf. McAdams, 1982a).

The TAT method continues to be the most popular tool for measuring motives. However, dependence on primarily one measure for the projective assessment of motives is not without certain drawbacks. Factors such as difficulty in administration and scoring, frequently low reliability findings, as well as inherent theoretical biases in the measure must be taken into consideration in estimating the overall utility of the TAT.

The purpose of this study is to develop an alternative projective measure of motive strength using the sentence completion method. The individual motive chosen for study is the newly-developed intimacy motive (McAdams, 1980a). This particular motive can be defined as "a recurrent preference or readiness for experiences of close, warm and communicative interpersonal exchange (McAdams, 1980)." Chapter II reviews the literature relevant to both the TAT and the sentence completion methods of motive assessment. This section is further divided into the theoretical and operational definition of a motive, the theoretical underpinnings, scoring system, and validation studies of the intimacy motive, methodological problems with the TAT, a review of the pertinent sentence completion research, and lastly an explanation of the present experiment including the specific hypotheses being tested.

Chapter III begins with an account of the derivation and development of the scoring system for the sentence completion test. This will include a scoring manual and a

comparison of the TAT scoring system for the intimacy motive with the sentence completion system.

A new chapter, Chapter IV, will begin the cross-validation experiment, describing method and results. A final chapter will conclude this study in which the results will be discussed in light of the hypotheses originally put forth.

## CHAPTER II

### REVIEW OF LITERATURE

#### Defining a Motive

The consistent reworking of the definition of a motive reflects the profuse variety of personality theories which have developed over several decades. In an effort to restrict the discussion of motives to that area most relevant for the present study, only the operational definitions of Murray and McClelland will be considered in the following section. Furthermore, due to the limited scope of this review, the presentation of their respective theoretical systems of personality - including many of the implications of their work with motives - must be limited as well.

Murray (1938) was one of the first psychologists to affirm the concept of motive as a central, integrating factor in individuals. Murray writes:

Perhaps the nearest thing to an all-embracing principle...is the concept of need, drive, or vectorial force. It (need)...points to an existing state of tension, a compelling uneasiness or dissatisfaction, a hypothetical disequilibrium, within the organism as the action-initiating state ... The reduction of tension will be attended by a feeling of satisfaction (Murray and Kluckhohn, 1953, p.35).

For Murray, a need represents a particular force which organizes perception and causes an organism to transform an

unsatisfying situation in a particular way (Murray, 1938). Needs can be enduring or temporary, overt or covert, conscious or unconscious, serving biological necessities like food and water (viscerogenic needs) or an individual's desire for acquisition, achievement or dominance (psychogenic needs). Murray adds:

(a need) persists and gives rise to a certain course of overt behavior (or fantasy), which ...changes the initiating circumstances in such a way as to bring about an end situation which stills (appeases or satisfies) the organism (Murray, 1938, p.124).

For Murray, needs or motives are central, organizing forces for an individual. They are detectable in both the overt action of the individual and the resultant satisfaction or disappointment - the affective response - of the person. Moreover, needs are readily perceived in the fantasies of individuals just as they are apparent in overt strivings. This premise led directly to Murray's development of a variety of measures for quantifying needs in fantasy.

Murray considered the TAT to be an effective method for assessing motives in fantasy. The TAT procedure requires subjects to view a series of pictures and to then create imaginative stories which incorporate the characters and settings of these scenes. Because Murray believed that needs can be detected in a person's fantasies, the analysis of these stories reveal the underlying needs or aims of an individual's behavior (Atkinson, 1958). Murray writes:

The test (TAT) is based upon the well-recognized fact that when a person interprets an ambiguous social situation he is apt to expose his own personality as much as the phenomenon to which he is attending. Absorbed in his attempt to explain the objective occurrence, he becomes naively unconscious of himself and the scrutiny of others and...discloses certain inner tendencies and cathexes: wishes, fears and traces of past experience....a great deal of written fiction is the conscious or unconscious expression of the author's experiences of fantasies (Murray, 1938, p.531).

Murray used a TAT protocol of twenty pictures along with numerous other tests and measures in his assessment of motives and, ultimately, of personality functioning. There were separate sets of pictures for males and females, children and adults. Murray thought it essential to have certain sets of cards for particular groups of people since, if the projective assessment of needs is to be effective there must be at least one character in each scene the subject might identify with (Murray, 1938).

It was Murray who set forth the first extensive definition and taxonomy of needs, using the TAT methodology in the assessment of personality. There were, however, aspects of his need system which were not adequately specified.

According to Murray's definition of need, it is not clear whether needs can be thought of in terms of the mode of response used to gain satiation or in terms of the inferred goal of behavior (McClelland, 1951, p.406). If the former criterion is used and one infers the presence of a need on the basis of mode of response, multiple and possibly

fallacious interpretations can result. If, however, needs are to be understood and judged on the basis of the goals of behavior, then they are better equipped to serve as the organizing and driving forces Murray originally outlined.

For example, a person with a particularly high need for power may utilize several modes in an attempt to satisfy his high n Power. He may emit affiliative- or even achievement-oriented behavior in his striving for power. To infer, however, that the individual demonstrates n Affiliation or n Achievement is not correct. Although certainly a part of his behavior, an understanding of individual motives can become blurred without noting the goal of behavior.

Since Murray was not able to translate and organize his essentially subjective assessments of individuals around criteria like the goal of behavior, the judgements of individual need strength remained excessively impressionistic and intuitive. The results of this system of need assessment with the TAT did not increase its standing as a psychometric tool.

It is at this point where McClelland's interpretation of Murray's need system is not critical. McClelland amended Murray's definition of a need or motive by explaining it, in part, by a particular goal state or "anticipatory goal reaction". McClelland's complete definition of a motive is that of a force which becomes "a strong affective association, characterized by an anticipatory goal



reaction and based on past association of certain cues with pleasure or pain (McClelland, 1951).

Although it is impossible to do justice to McClelland's theory of motivation and the many important implications of the above definition in the scope of this chapter, it is important to mention that in his conception of a motive, McClelland goes beyond Murray to incorporate not just the tension- or need-reducing aspects of motives but also their ability to direct the individual to seek out and select certain behavioral goals which would be rewarding. Further, motives are learned and based on affective arousal. McClelland explains:

Apparently what happens is that certain cues (either in the affective state or in the external conditions producing it) get associated with the affective state so that they can re-integrate it on a later occasion. It is this anticipation of change in affective states which is here defined as a motive. ... In short, it is the anticipatory goal response or reintegrated change in affective state which is the motive and which gives the motive its directing power as compared with an emotion which is an affective arousal now with no associated reference to another affective state (McClelland, 1951, p.466).

Stated another way, motives "drive, direct and select behavior (McClelland, 1980, p.6)". In McClelland's theoretical scheme all three criteria - driving, directing, and selecting - have to be present before one can reliably infer a motive. Hunger in animals provides a simple example of a motive. When an animal is hungry, it will become more active (driving), it will attend to certain stimuli (food) more than others (directing), and will

learn a maze more quickly to get food (selecting) (McClelland, 1980).

This definition has important implications for the measurement of motives. Since the anticipatory goal reaction or goal state becomes so important to the individual, the strength of a motive can be directly inferred by the imaginal preoccupation of an individual. For example, if one were to try and assess the strength of the achievement motive in a person, the "simplest measure...(one) can attain...is to observe the frequency with which he thinks about achievement as measured through imaginative productions (McClelland, 1955, p.232)."

McClelland developed a new method of utilizing the TAT by arousing individual motives and measuring their effects on fantasy through the thematic coding of their thoughts. By first arousing the hunger need experimentally and measuring its effect in fantasy (McClelland & Atkinson, 1948), McClelland and others quickly moved to the experimental arousal of other needs such as achievement and power.

Murray and McClelland employed the TAT differently as a result of their operational definitions of motive. Both regarded the TAT as a measure of motives using an individual's thought samples; however, McClelland demonstrated how the intuitive and rather general system of motive study used by Murray could be refined to assess the behavior of individual motives in a highly systematic way. Since the early work of McClelland and his collaborators (McClelland

et al., 1949), the TAT has been a popular tool for the assessment of motives such as the need for Power (n Power), the need for Achievement (n Achievement), the need for Affiliation (a Affiliation), and the need for intimacy (n Intimacy) (e.g., Atkinson, 1958; McAdams, 1979).

The procedure for measuring a newly-defined motive was first outlined by McClelland (McClelland, Atkinson, Clark, & Lowell, 1953). Subjects are divided into treatment groups and control groups. Given the particular motive being studied, the experimenter attempts to "arouse" that motive (e.g., intimacy) in the treatment or "arousal" group. There is made no attempt to arouse the motive in the control group. Either during or shortly after the arousal period the subjects are asked to take the TAT. Subsequent examination of the TAT stories from the aroused as well as non-aroused subjects highlights those themes, identifiable in narrative, which distinguish the two groups. These themes are then used to construct a scoring manual which is refined through further experimentation until it can reliably assess the motive in stories written in only neutral or non-aroused conditions.

The way in which the intimacy motive developed is similar to that of other motives (e.g., arousal experiments, etc.). For purposes of this investigation a detailed examination of intimacy motivation follows:

## The Intimacy Motive

A new motive recently studied with the TAT method is the intimacy motive. Although the accumulated research on this motive is not as extensive as some others, the initial validation studies have been successful in demonstrating the usefulness of the measure. This section will review the theoretical underpinnings of the motive, the arousal studies for the motive, and the recent cross-validation experiments.

### Origin and Definition of Intimacy Motivation

The intimacy motive has been defined as "a recurrent preference or readiness for experiences of close, warm, and communicative interaction with others - interaction seen as an end in itself rather than a means to an end (McAdams, Healy, and Krause, in press)." This recurrent preference for interpersonal closeness and warmth - intimacy - is thought to energize, direct, and select human behavior in certain situations (McAdams, Kirshnit, & Jackson, in press; McClelland, 1971).

The theoretical foundations of the motive are found in the writings of Bakan (1966) on the two fundamental modalities of living forms: agency and communion, Maslow (1954, 1968) on "Being-Love", Sullivan (1953) on the psychological need for interpersonal closeness and sharing, and

Buber (1970) on the I-Thou relation.

Bakan's distinction between the basic tendencies of agency and communion in human beings pivots on the degree of relatedness which a person feels for his surroundings. Agency is the assertion of one's own being and, hence, the separation from individuals and surroundings (Bakan, 1966; McAdams 1982a). To be agentic is to be self-assertive, individualistic, and self-protective. Agency moves one towards isolation, aloneness, and possible alienation (McAdams, 1982a). Its counterpart, communion, describes the existence of an organism as one closely related to its surroundings, an organism which is in close contact and cooperation with others (Bakan, 1966). This modality of being allows a sense of union and "oneness" with one another. Bakan asserts that individual personality differences can be organized and understood in terms of the dynamic between agency and communion (McAdams, 1982a). McAdams writes:

The organism tending toward communion appears highly sensitized in opportunities for blurring the boundaries of self in the process of relating. . . . This communal pose, however, is one of attentive waiting, not active striving. And the merger - the interaction with another as it spontaneously unfolds - is not conditional nor is it a means to another end (McAdams, 1982a, p.135).

From the work of Maslow, McAdams has adopted the notion of "Being-Love," that is, a non-interfering non-condemning attitude of others in which two people enter into a "mutually enjoyed, reciprocal, egalitarian union (McAdams, p.135)." Being-Love is distinguished from "Deficiency-Love",

(D-Love). Whereas D-Love is characterized by an active striving on the part of the organism to fill an interpersonal void, B-Love, according to Maslow, is "intrinsically enjoyable". Maslow writes:

B-Love is...a richer, higher, more valuable subjective experience than D-Love (which all B-Lovers have also previously experienced).  
...B-Lovers are more independent of each other, less jealous or threatened, less needful, more individual, more disinterested, but also simultaneously more eager to help the other toward self-actualization, more proud of his triumphs, more altruistic, generous and fostering (1968, p.43).

A very critical feature of this definition is that B-Love is not a means to a particular end; and unlike D-Love, there is not any particular deficiency which must be filled. B-Love is an end in itself, rather than a means to an end (Maslow, 1968, p.42).

The third source in developing the notion of intimacy motivation comes from Sullivan's Interpersonal Theory of Psychiatry (1953). Sullivan contributes to our understanding of interpersonal relations by describing a crucial phase in preadolescent development when a person places the welfare of another - a "chum" - above his own. At this stage the child goes beyond the moment to moment consideration of his own needs and develops a real sensitivity to what matters to his chum (McAdams, 1983). Sullivan (1953) writes:

But if you will look very closely at one of your children when he finally finds a chum...you will discover something very different in the relationships - namely, that your child begins to develop a real sensitivity to what matters to another person. And this is not in the sense of "what should I do to get what I want," but instead "what should I do to contribute to the happiness or to support the prestige and feeling of worth-whileness of my chum." (p.245)

Sullivan also writes of the painful experience of loneliness, the opposite of intimacy, a state so "terrible that it practically baffles clear recall...(Sullivan, 1953, p.261)."

The writings of Martin Buber (1965; 1970) regarding the "I-Thou relation" form the last theoretical contribution to the notion of intimacy motivation. The I-Thou relation is a momentary experience between two people in which each person remains unique and separate (McAdams, 1982a, p.136). The moment is characterized by the complete absorption and appreciation between two people. Sullivan's notion of syntactic communication aptly describes the kind of clarity and understanding the two people have in their communication (McAdams, 1982a, p.136). Buber writes:

When I confront a human being as my YOU and speak the basic word I-YOU to him, then he is no thing among things nor does he consist of things.

He is no longer He or She, limited by other He's. and She's, a dot in the world grid of space and time, nor a condition that can be experienced and described, a loose bundle of named qualities. Neighborless and seamless, he is YOU and fills the firmament. Not as if there were nothing but he; but everything else lives in his light (p.59).

Buber emphasizes the momentary quality of such an exchange. As a brief encounter, he asserts, it is possible between all sorts of people at any time. The I-Thou is not restricted to specific long-term relationships (McAdams, 1982a, p.136).

Looking collectively at the propositions these authors have set forth regarding man's basic need for intimacy and closeness, McAdams enumerated seven themes which would serve as the foundation of the scoring system for the intimacy motive. These themes are:

- (1) joy and mutual delight (Maslow).
- (2) reciprocal dialogue (Buber, Sullivan)
- (3) openness, contact, union, receptivity (Bakan, Maslow)
- (4) perceived harmony (Buber, Sullivan)
- (5) concern for the well-being of the other (Sullivan)
- (6) surrender of manipulative control and the desire to master in relating to the other (Bakan, Buber, Maslow)
- (7) being, in an encounter which is perceived as an end in itself, rather than doing, or some extrinsic reward (Bakan, Buber, Maslow, Sullivan)

These seven themes serve as a framework in the development of a thematic coding system for the intimacy motive. Theoretically, they are important signposts in the search for the kind of experience people might reflect in their stories.

#### Derivation of the Scoring System

The development of the scoring system follows the procedure first outlined by McClelland et al. (McClelland,



Clark, Roby, & Atkinson, 1949) in their pioneering research on the achievement motive. This procedure for the assessment of a social motive includes six distinct phases: (1) the identification of a setting or situation where the motive of interest is present (often the motive is experimentally aroused); (2) the unobtrusive sampling of subjects' thoughts via the TAT; (3) the comparison of these thought samples with a control group that is, a group of subjects who are not thought to be experiencing the motive in question; (4) the thematic delineation of differences between the stories written by the sample and the control group; (5) the cross-validation of the newly-devised system on another arousal sample and control group (this phase yields a validity estimate of the group differences in motive states); and (6) further cross-validation experiments designed to yield information regarding the individual differences in motive dispositions (McAdams, 1982a, pp.138-139).

### Arousal Experiments

The arousal experiments were designed to highlight basic differences between experimental and control subjects. Three of these arousal experiments were a result of naturally occurring situations, and one was designed to artificially induce the intimacy motive in a laboratory setting. These four arousal experiments are described in detail below:

In the first experiment, six TAT pictures were administered to men and women attending fraternity and sorority initiation ceremonies, respectively. These situations were thought to be naturally-occurring settings for measuring qualities representative of intimacy discussed by Bakan, Maslow, Sullivan, and Buber. McAdams notes that these situations were chosen as intimacy arousal conditions because of the reported feelings of "good cheer" and comradeship at such events (McAdams, 1982a, p.140). The TAT was administered unobtrusively at the end of both the fraternity and sorority initiations. A control group consisting of students matched for college status and fraternity or sorority affiliation was administered the identical TAT cards under a neutral (class-room) condition.

In the second experiment, the same TAT pictures were shown to 38 students (19 male, 19 female) during a college party. The students were selected on the basis of (1) enjoyment of the party (all participants stated that they were enjoying themselves) and (2) that the effects of alcohol would be sufficiently low in order not to confound the arousal conditions. All subjects who participated in this second arousal experiment were volunteers. The control group used in this experiment was the same group used in experiment 1.

The third arousal experiment, involving 46 male and 46 female subjects, utilized data from a study by Peplau,

Rubin, and Hill (1976). The subjects were heterosexual couples who scored high on a scale designed to measure the intensity of shared love (Rubin, 1973; McAdams, 1982a). This high rating was seen as an appropriate arousal condition for the intimacy motive. These subjects completed 46 sets of TAT protocols. For control purposes, McAdams collected TAT data from 46 students (23 male, 23 female) who viewed the identical TAT cards. These subjects were not selected as couples but were individual volunteers, and they reported they were not involved in a love relationship at the time of testing. These two groups - the arousal and the control - were matched for age.

In the last experiment designed to gather subjects' thought samples, a laboratory condition was utilized in which the motive was experimentally aroused in subjects. The experiment was a within-group design in which 43 volunteers (23 males, 20 females) were administered the TAT first in a neutral condition and then again after the experimentally induced arousal session. This last phase of the experiment consisted of groups of subjects (eight or nine) involved in a variety of activities (discussions, role-playing, games) designed to promote spontaneity, sharing, friendship, and warmth (McAdams, 1982a). These activities were derived from the structured exercises commonly used in psychodrama experiments (Moreno, 1946). The TAT stimulus cards administered in the initial neutral condition were not those

administered in the arousal session. Rather, comparable cards were selected and administered in the standard TAT group administration format (Atkinson, 1958).

These four arousal experiments together with the theoretical writings of Buber, Baslow, Bakan, and Sullivan, allowed McAdams the opportunity to formulate discrete categories for scoring the TAT narratives.

### Development of Scoring Categories

McAdams began the delineation of thematic scoring categories by first examining the TAT protocols (arousal and control) from experiments 1 and 2. This derivation sample consisted of only a portion of the total protocols. Examination of this derivation sample yielded nine major themes which related to the quality of the relationships described in the stories written by the subjects (McAdams, 1980). After this initial examination of the TAT stories, the remaining protocols were scored blind for the nine categories. This cross-validation resulted in the elimination of three of the themes identified in the initial examination of the derivation sample.

A similar procedure was followed for the data collected in the third experiment. A small derivation sample yielded five new categories which, upon blind scoring of the remaining protocols in this third experiment, were subsequently reduced to three. These three new categories significantly differentiated between arousal and control

conditions.

Having gathered this information in the scoring of experiment 3, McAdams modified the initial six categories from experiments 1 and 2 by adding a seventh. He then added these seven categories to the three categories resulting from experiment 3. The ultimate product was a coding system for the intimacy motive which contained ten thematic categories and was then used to score blindly the cross-validation samples from all four experiments. The total intimacy motive scores (summed across categories for each story) differentiated between arousal and control subjects  $p < .001$  in experiments 1, 2, and 4, and  $p < .005$  in experiment 3 (McAdams, 1982a, p.142).

### The Scoring System

The 10 categories which comprise the TAT scoring system for the intimacy motive are scored for in a present/absent manner. For example, the first category, "Relationship Produces Positive Affect," refers to an interpersonal exchange which is associated with or results in a positive affective experience for either of the characters involved. If this occurs in the story, a presence score (+ 1) is recorded. If the story is devoid of any such encounter, an absence score (0) results.

This system developed by McAdams differs in an important way from the previous achievement scoring system by

McClelland et al. (1949). In the past system, categories were designed to reflect the activity or striving of the character(s) involved in the TAT story. In the intimacy system, it is the quality, not necessarily the quantity, of the interaction which is being assessed. Hence, the characters described in the TAT stories "need not be 'doing' anything in particular rather the quality of the interaction between them is assessed by reference to a number of attributes that may characterize intimate interpersonal encounters (McAdams, 1982a, p.145)." It should be noted that this system of scoring - an "attribute" as opposed to an "activity" system - reflects precisely the theoretical principles guiding the early investigation of the motive. For example, it is this quality which distinguishes Maslow's concepts of D-Love from B-Love. D-Love (as previously noted) is an active striving for the fulfillment of a particular interpersonal need; B-Love, however, is a "welcoming" of others, an almost effortless acceptance and union with another. Thus this scoring system allows for these attributes to be assessed, and remains theoretically consonant with its scoring procedures.

One of the first two categories of the intimacy motive scoring system must be scored for (+ 1) in order for the remaining eight categories to be reviewed. Scores are given on each individual story and range from a possible low score of 0 (no categories present) to 10 (all categories present).

At the conclusion of the scoring a total score results by adding up the individual story scores and correcting for story length.

The 10 thematic categories are listed below, along with a brief explanation of each and an example. (This section draws heavily on the descriptions found in the scoring manual designed by McAdams, 1980, 1982a).

Category I: Relationship Produces Positive Affect (Intimacy Imagery 1: + A). As mentioned earlier, a relationship between two people in the story needs to demonstrate some positive affect in order for this category to be scored. Positive affect is described by McAdams as one of the following: love, friendship, happiness, peace, or tender behavior resulting in a positive emotion (McAdams, 1982a, p.143.). Example: "The two people have recognized each other and are enjoying being together."

Category II: Dialogue (DLg., Intimacy Imagery 2). Dialogue refers to the verbal or nonverbal exchange of information between the characters in the story. McAdams presents three criteria related to this category, one of which must be present in order to result in the scoring of this category. These are: (a) reciprocal, noninstrumental communications, (b) discussion of an interpersonal relationship, and (c) conversation for the purpose of helping another in a crisis. Example: "She's trying to cheer him up."

Category III: Psychological Growth and Coping (Psy).

The interpersonal encounter described is instrumental in facilitating or promoting psychological growth, adjustment, search for knowledge, maturity, etc. Example: "She has made me what I am."

Category IV: Commitment or Concern (CC).

In order for this category to be scored for a character in the story must demonstrate a sense of commitment or concern for another character or group of characters. This concern should not be of a utilitarian or grudging nature; aspects such as loyalty, responsibility and sacrifice are all indicated here. Example: "He will help her get through her difficult time."

Category V: Time-Space (TS) This category refers to the duration of the relationship between two characters. A reference to the enduring nature of the relationship, including phrases such as "timelessness", "the eternal moment", etc. should be scored for. example: "This moment together seemed to last a lifetime."

Category VI: Union (U). In this category the writer should make explicit reference to the physical or figurative coming together of people who, at one time, had been separated. This category also includes the coming together of people who are not generally found together (e.g., an atheist and a priest) as well as characters who have recently come together in marriage or who are engaged to be married. Example: "This is a father and daughter who have come



together after a long time."

Category VII: Harmony (H). The characters in the story find themselves in harmony with one another. Example: "They share an emptiness."

Category VIII: Surrender (Sr). This category is indicated when a character finds him/herself subject to a force beyond their control and surrenders to it (e.g., luck, fate, God's will, etc.). Example: "They are helplessly in love."

Category IX: Escape to intimacy (Esc). The story characters escape either mentally or physically to a place which affords greater peace and freedom. Example: "He is taking a break from his busy day to think about them."

Category X: Connection with the outside world (COW). This category describes either an explicit or metaphoric parallel between the characters involved in the relationship and the outside world. Example: "The heat is oppressive to him."

McAdams has published interrater reliability figures for the scoring system. High interscorer agreement has been demonstrated between the scoring present in the manual and selected trained scorers (McAdams, 1982a). Further, the rank-order correlation between the total motive score as assessed by scorers and the manual has ranged from  $\rho = + .86$  to  $+ .92$  (McAdams, 1982a).

Test-retest reliability has been demonstrated at  $\rho = + .48$  for a one-year interval (Lundy, 1980). In the case of test-retest experiments, it is necessary to modify the TAT

instructions in a manner similar to that used by Winter and Stewart (1977) which offers subjects the opportunity to write stories similar to the ones they had previously written.

Evidence for the construct validity of the intimacy scoring system has come from numerous sources: peer ratings, interpersonal behavior in a psychodrama, information processing, psychosocial adaptation, friendship patterns, subjects' use of free time, and the political behavior of adults. What follows is a brief review of these studies:

#### Validation Studies

In two studies which included TAT assessment for intimacy motivation (McAdams, 1980; McAdams & Powers, 1981) adjective checklist ratings were administered to 20 peers of those subjects who scored high in intimacy motivation. The adjective checklist contained twenty-four adjectives, 10 of which were selected for their relatedness to the intimacy motive. The remaining 14 items were judged to be unrelated (McAdams, 1982a).

Results were obtained which demonstrated that those subjects who scored high in intimacy motivation as assessed by the TAT under neutral conditions were consistently described as more "sincere", "likeable", "loving", and "natural" by their peers (McAdams, 1980). They were also described as less "dominant" than subjects who scored lower on the intimacy motive. Correlations ranged from + .59 (p .001) to + .34 (p .05) between the actual motive scores

and the number of judges selecting the adjectives to rate the subject. Interestingly, when self-ratings were obtained, these same high-intimacy subjects did not ascribe to themselves those qualities mentioned by their peers. This would imply a lack of awareness (or, at least, a degree of modesty) with respect to their qualities of sincerity, etc. McAdams (1982a) concludes:

It appears that college students scoring high on the TAT intimacy motive measure are perceived by others as consistently more sincere and warm in interpersonal relationships and consistently less dominant than their peers scoring lower, suggesting the kind of gentle "being" orientation described by Maslow (p.147).

In a study involving psychodrama (McAdams & Powers, 1981), the overt behaviors of individuals who scored high on the intimacy motive as assessed by the TAT were compared with average and low intimacy subjects. Trained raters who were unfamiliar with individual motive scores were assigned to code the videotaped recordings of the individual scenarios. In these exercises, subjects were asked to structure a psychodrama episode relating to any issue or topic they desired. The individual psychodramas were anywhere from 5-10 minutes long and did not yield the kind of personal material which might have resulted from the same exercise being performed for psychotherapeutic benefit. Still, the scenarios gave the researchers an opportunity to observe the interpersonal style of the participants in addition to recording the themes each subject chose to express in the psychodrama.

The ratings were accomplished through the delineation of seven objective behavioral indices:

- 1) physical proximity to other group members;
- 2) amount of time giving instructions to others relative to amount of time acting out the scenarios;
- 3) number of commands delivered to others;
- 4) number of references to "we" or "us", designating the group;
- 5)
- 6) number of outbursts of laughter by group members (assumed to indicate positive affect); and
- 7) order of volunteering to be a protagonist (McAdams, 1982a).

Significant differences between high and low intimacy subjects were found according to these seven indices. For example, high intimacy motivation subjects spent more time involved in the actual performance of the group scenario. These individuals would more frequently refer to the group as "we" or "us", and would offer fewer commands. Additionally, these high intimacy individuals were found to stimulate more episodes of laughter from the group, as well as ensuring close physical proximity to the group (McAdams & Powers, 1981; McAdams, 1982a).

These correlations continued when a new set of criteria were introduced to codify the behavioral sequences.

Using a specially devised set of themes analogous to the TAT scoring system, independent raters blindly scored the 43 videotaped scenarios. The results of this second analysis demonstrated again the proclivity of those subjects who initially scored high on the intimacy assessment (TAT) to prefer and to actively structure their scenarios in such a way that "themes of positive affect, mutual dialogue, and surrender of control in an interpersonal encounter were central (McAdams, 1982a, p.150)." The overall correlation coefficient between the total intimacy motive score as assessed by the thought sample (TAT) and that assessed by the behavioral themes was a solid + .70 (p .001).

Drawing upon an earlier research idea (Atkinson and Walker, 1956), McAdams (1979) tested the hypothesis that people high in intimacy motivation as assessed by the TAT are more sensitive to perceived changes in facial structure. results showed significant differences between high and low subjects regarding the perception of faces. Those who scored high in intimacy motivation consistently showed more variance in their judgment responses to nine faces (McAdams, 1979; 1982a). The results indicate either (1) that high intimacy subjects perceive the differences in the faces or (2) that all of the subjects equally perceive the differences, however it is the high intimacy subjects who are more likely to base their judgments predominantly on these perceptions (McAdams, 1982a, p.152). Although it is presently

difficult to select between these two explanations, McAdams notes that research into mother-infant attachment and non-verbal communication may support the former hypothesis (see McAdams, 1982a, p.152).

McAdams (1982b) extended his research into the selected effects of intimacy motivation upon human information processing with two experiments studying autobiographical memory on the one hand and intimacy and power motivation on the other. Through the elicitation of certain biographical memories -- including "peak experiences" -- significant positive relationships were found between the level of intimacy motivation and a thematic analysis of autobiographical stories. Those individuals scoring high in intimacy motivation as assessed by the TAT procedure reported more memories which demonstrated particularly intimate themes, specifically, "love or friendship", "communication or sharing", "helping others or being helped", and "tender interpersonal touching". (McAdams, 1982a; 1982b). A similar pattern of correlations was discovered for those subjects high in power motivation. The two samples measured according to the above procedure demonstrated correlations between intimacy motive, score and number of intimacy themes in the recollections of peak experiences of + .44 and + .49, both significant at  $p < .001$ . McAdams concludes:

The results of the autobiographical memory study suggest that intimacy motivation may exert a powerful selective effect upon the processing of autobiographical information seen by the person as particularly meaningful or salient. It appears that subjects scoring high in intimacy motivation find warm, close, and communicative exchange to be particularly rewarding and that memories of such exchange have a privileged status in the hierarchy of specific personal experiences that can be readily remembered. Thus, the intimacy motive appears to confer upon particular classes of experience a special meaning of salience that may facilitate the relatively efficient processing and ready retrieval of such information in a setting in which the subject is asked to recall a particularly meaningful event of the past (1982a; pp.154-155).

Leaving the domain of information processing, two studies by McAdams in the area of psychosocial adaptation and intimacy investigate the relationship between social motives and two broader issues: identity formation and the course of intimacy motivation across the life cycle.

In the first experiment, McAdams et al. (1981) studied the interaction of identity, ego stage, and intimacy motivation among students who had recently undergone or were currently engaged in some form of religious crisis. The subjects' responses were classified into four categories from the least to the most mature with respect to identity formation; Foreclosure, no crisis shown, Restabilization, an artificial crisis, Moratorium, a definite crisis, no commitment as yet, and Personalized Identity, a crisis followed by a clear commitment (McAdams, Booth, & Selvik, 1981).

McAdams et al. came to two important conclusions. First, they found that there was a significant positive

relationship between ego stage and the maturity of religious identity formation. Second, intimacy motivation was found to correlate positively with increased maturity of religious identity formation, (McAdams, 1982a; McAdams et al., 1981) That is, those subjects in the categories of Personalized Identity and Moratorium showed higher intimacy motive scores. A close examination of the responses of those high intimacy subjects reveals an important relationship between the motive strength and the quality of the religious experiences described. Those subjects who had high intimacy motive scores related religious experiences which reflected feelings of "love, communication, touching, and a perception of God as a possible developmental property of the intimacy motive, however this aspect of intimacy motivation has yet to be worked out.

In an experiment designed to explore the relationship between social motives and psychosocial adaptation, McAdams and Vaillant (1982) undertook the analysis of archival data, specifically, the TAT protocols of fifty-seven men recorded when they were approximately thirty years old. The scoring was done for four social motives: achievement, power, affiliation, and intimacy. In the seventeen years which followed the TAT administration, summary indices of psychosocial adaptation were collected by mental health workers. The nine indices of psychosocial adjustment included: income level, occupational advancement, recreational



activities, vacations, enjoyment of job, psychiatric visits, drug or alcohol misuse, days of sick leave, and marital enjoyment (McAdams & Vaillant, 1982).

Of the four motives which were correlated with later psychosocial adaptation, only the intimacy motive was significant as a predictor of high adjustment scores ( $t = 3.5$ ,  $p < .01$ ) seventeen years after the collection of the TAT protocols (McAdams & Vaillant, 1982). Subjects high in intimacy motivation demonstrated better psychosocial adaptation and increased psychological health when compared to their peers. Since the two criteria most highly correlated with intimacy motivation -- marital enjoyment and job satisfaction -- are such dramatic indicators of mental well-being, a very real relationship can be inferred between intimacy motivation on the one hand and psychological health on the other.

McAdams, Jackson, & Kirshnit (in press) explored the relationship between intimacy motivation, interview reciprocity, and three nonverbal behaviors: laughter, smiling, and eye contact. Eighty college students (forty males, forty females) were administered the TAT which was later scored for intimacy motivation. They were then interviewed in either a one-way (interviewer asks questions) or reciprocal (interviewer asks questions and discloses information about him - or herself) condition by an interviewer of the same sex as the subject. Results demonstrated a positive correlation between intimacy motivation and increased levels of

laughter, smiling, and eye contact for all subjects. Slightly different results were found for males and females. Among women in the sample, intimacy motivation was positively related to both laughter and smiling, and a significant two-way interaction occurred for laughter and eye contact to which the reciprocal condition and the high motivation subjects combined to predict the highest scores on these two behaviors (McAdams, Jackson, & Kirshnit, in press). For men, only laughter demonstrated a significant positive correlation with intimacy motivation. McAdams et al. further note that women demonstrated significantly higher scores than men on all three of the selected nonverbal behaviors.

In an experiment designed to study a possible relationship between intimacy motivation and patterns of friendship, 105 students were administered the TAT and asked to describe ten brief interactions (15-20 min.) with friends - friendship episodes - which occurred during the previous two weeks. Those subjects who scored high on the TAT-assessed intimacy motive reported significantly more (1) friendship episodes, (2) self-disclosure between friends, (3) listening, and (4) concern for the welfare of their friends than did the lower intimacy motivation subjects. (McAdams, Healy, & Krause, in press). These TAT protocols were also scored for power motivation, and the results are equally significant. Those subjects who scored high on power motivation demonstrated more large-group interaction (males only) and more purposeful

and agentic striving in friendship episodes. McAdams et al. writes:

A pervasive sense of trust in the other and a concern for the other's well-being, which characterize high intimacy subjects' understandings of the reason behind their friendships are not only congruent with Bakan's communal mode but also correspond to Sullivan's (1953) meaning of the "collaborative chumship" which remains the telos for behavior and experience motivated by the "need for interpersonal intimacy" (p.245) McAdams et al. 1982a, p.20).

Two further studies designed to demonstrate the construct validity of the intimacy motive include (1) an experience sampling experiment in which two social motives - intimacy and affiliation - were measured with the TAT and compared with daily behavior and life experiences, and (2) an investigation into the motivational profiles of former political radicals and politically moderate adults.

In the experience sampling study (McAdams & Constantian, in press) subjects recorded their thoughts, affects, wishes, and behaviors at random intervals seven times a day. The sampling procedure was effected by electronic pages which signal the individual to make his/her recording. The TAT was administered to all fifty subjects and scored for intimacy and affiliation motivation prior to the experience sampling procedure. Results showed that over the course of one week those subjects who were high in intimacy motivation demonstrated (1) more interpersonal thoughts, and (2) more positive affects in interpersonal situations, than subjects low in intimacy (McAdams & Constantian, in press).

Furthermore, intimacy motivation was negatively associated,  $r(148) = -.32$ ,  $p .05$ , with subjects' desires to be alone when interacting with others.

Finally, individuals who were active in the political "New Left" of the 1960's, as well as more politically moderate adults, were compared on four social motives: power, intimacy, affiliation, and achievement. These motives were assessed according to the standard TAT procedure. In total, 160 subjects participated (72 politically radical, 88 politically moderate).

The results indicate that, for both sexes, those persons who were politically radical in the 1960's "New Left" movement scored significantly lower on intimacy motivation than did the politically moderate group,  $t(158) = -4.90$ ,  $p < .001$ .

For the other three motives, radical males scored significantly lower on achievement and significantly higher on power than did moderate males. The affiliation motive demonstrated a less significant,  $t(158) = -2.52$ ,  $p .05$ , ability to discriminate between groups, McAdams et al. (1982) write:

Statistically, the most discriminating motive in both male and female samples is the intimacy motive, which refers to a recurrent preference for experiences of close, warm, and communicative interpersonal events, encounters generally regarded as reciprocal and noninstrumental... ("surrender of control") which is not a component of any of the other TAT motive systems including affiliation may run directly counter to the activist concerns of the former radicals studies here. (p.599)

These numerous studies attest to the construct validity of the intimacy motive scoring system with the TAT. The studies reviewed demonstrate the association between high intimacy motivation and (1) highest ratings by peers on such adjectives as "sincere", "likeable", and "loving" (McAdams, 1980); (2) warm and supportive behavior during a psychodrama exercise (McAdams & Powers, 1981); (3) perceived changes in facial configuration (McAdams, 1980); (4) the free recall of picture-word pairs which serve as relational cues (McAdams, 1982a); (5) important autobiographical memories which reflect themes of love, friendship, dialogue, and nurturance/succorance (McAdams, 1982b); (6) more mature religious identity formation (McAdams, Booth, & Selvik, 1981); (7) increased psychosocial adaptation (McAdams & Vaillant, 1982); (8) increased laughter, smiling and eye contact (McAdams, Jackson, & Kirshnit, 1982); (9) more frequent friendship episodes characterized by greater self-disclosure, listening, and concern (McAdams, Healy, & Krause, 1982); (10) increased daily thought and positive affects related to interpersonal situations (McAdams & Constantian, 1982). Lastly, high intimacy motivation has been negatively correlated with politically radical adults (McAdams, Rothman, & Lichter, 1982). Through these studies the TAT-based intimacy motive scoring system has established its construct validity and has exemplified McClelland's, 1971, definition of a social motive as one which "energizes, directs, and selects human behavior in certain situations.

## The TAT Measure

### Criticism of the Measure

Upon careful review of the literature criticizing the TAT and related projective measures, one finds a plethora of researchers who present their respective cases against the projective assessment of motives quite convincingly (e.g., Brown, 1961; Entwisle, 1972), Farber, 1954; Jensen, 1959; Klinger, 1966; Mitchell, 1961).

The central methodological problem faced by the supporters of the fantasy-based measures is that of reliability, predictive validity, and convergent validity (Klinger, 1966; McClelland, 1980). Since the innovative research of McClelland and his colleagues in the early 1950's, test-retest reliability and indices of internal consistency among scoring categories have been moderate to low (Klinger, 1966; McAdams, 1982). Although experimenters who use a TAT scoring system routinely achieve high interscorer agreement, the overall reliability estimates with the TAT are not impressive.

In a review of reliability findings with the TAT, Entwisle (1972) notes three sources of variance which contribute to the low reliability findings with the TAT: (1) variation from one scorer to another, (2) variation from one test occasion to another, and (3) variations from one

version of the instrument to another (Entwisle, 1972). In a reanalysis of the data collected by McClelland et al. (1953), Entwisle found the average interpicture correlation to be .068 and the overall reliability estimate to be .37. Several studies were cited by both Klinger and Entwisle (e.g., Kagan & Moss, 1959, Beitman & Atkinson 1958, Krumboltz & Farquhar, 1957) which demonstrate very low reliability estimates for fantasy-based measures (generally below +.50). Klinger also criticizes the measure on theoretical grounds, noting that several studies (e.g., Atkinson, 1953; Peak, 1960; Tedeschi & Kian, 1962) have failed to adequately arouse the desired motive states.

Entwisle also stresses the lack of correlation between performance on pictures in a TAT sequence (interitem correlation). In One study examining n Achievement and cognitive style among ninth graders, 100 sets of four TAT pictures were administered to 665 subjects. Interscorer reliability estimates were determined to be 92%. However, when intercorrelations were calculated between scores on the four pictures, average values ranged from -.01 to .19. Entwisle notes that considering the fact that each picture (item) score represents 25% of the test, reliability will certainly be low with low interitem correlations. Critics of the TAT measure argue that this finding of high variance between pictures for the same subject concomitant with high

interscorer reliability should lend considerably caution to supporters of the measure:

Two scorers could agree with one another perfectly in assigning scores for each picture, but if the scores are uncorrelated from one picture to the next, the total score is made up of unrelated numbers (Entwisle, p.383).

In an effort to examine the predictive validity of n Achievement, Klinger (1966) conducted a review of experiments published before 1966 and compared those studies which concluded significant results between fantasy n Achievement and molar performance measures (e.g., course grades, grade averages, etc.) and those which resulted in nonsignificant results. The comparison was done for child, high school, and adult subjects. The projective measures of n Achievement compared were: the TAT, the French Test of Insight (French, 1958), and the Iowa Picture Interpretation Test (IPIT; Hurley, 1955).

Klinger's findings demonstrated that an equal number of studies failed to achieve statistical significance as did indeed achieve it. His findings also showed a sex difference in the studies. The experiments which used female subjects overwhelmingly report an absence of a relationship between fantasy n Achievement and molar performance measures (Klinger, 1966). Age was also related to the significance of the findings. Nine of the ten studies listed by Klinger which involved males of high school age or younger demonstrate significant findings, however only seven of the



studies using college-age or older subjects (males) are reported to be significant. Klinger further notes that, according to the theoretical rationale of the achievement motive, there is not an appropriate reason which would explain the age-related differences or the sex differences.

In a similar survey of published results, Klinger reviewed the experiments in which scores from the same three projective measures were compared with current indices of task performance (e.g., learning, speed of performance, etc.). These results relate more directly to convergent rather than predictive indices of validity. The overall results were not unlike the previous review; approximately half of the studies reported predominantly significant relationships between n Achievement and task performance, and half of the studies reported nonsignificant relationships. These data reflect other findings which demonstrate similar results. For example, the n Achievement measure obtained by the TAT has been found to be uncorrelated with other more "Objective" tests like the Edwards Personality Preference Schedule (Edwards, 1957) and with the Jackson Personality Research Form (Jackson, 1966) (McClelland, 1980).

An additional finding in this review by Klinger was that the overall performance relied on the particular n Achievement assessment instrument used - TAT, French Test,

or IPIT. The French test of Insight produced almost completely significant results, whereas both the TAT and IPIT measures had more nonsignificant than significant results associated with them (Klinger, 1966). These findings imply a further problem in motive research, namely, the poor correlation fantasy measures show with each other in the assessment of the same motive (Entwisle, 1972).

Klinger has also criticized the method of motive arousal first developed by McClelland et al. (1949). Klinger does not deny that the motive in question may, in fact, be aroused by such experiments which seek to convey a particular set of expectations to subjects. He does caution though, that researchers are unaware of other motivational and nonmotivational variables which might also be aroused in such a process. His argument confronts McClelland's notion of a "pure" assessment of a motive, since Klinger claims that the experimenter cannot, with even moderate certainty, know exactly what it is that he is arousing. Klinger writes:

Experimental procedures for arousing motives in humans, however, inevitably stimulate some perceptual and associational processes that are at best loosely affected by the motive presumed to be aroused, and the procedures may indeed also arouse unplanned motives. Thus, arousal techniques by themselves fall short of independent measures of motive strength (1966: p.293).

One of these nonmotivational variables is the effect of modeling and demand characteristics between experimenter

and subject. Klinger does not believe that those researchers who utilize arousal experiments fully appreciate the ways an experimenter may influence a subject. Since most experimenters - and certainly those who employ fantasy-based measures for motives are among them - attempt to establish some sort of relationship with their subjects, the subjects often respond with cooperation and the desire to assist the experimenter to successfully complete the experiment (Klinger, 1966). Klinger points out that the experimenter serves as a model for his subjects, and, as such a figure, can be expected to have subjects imitate him. Klinger cites experimental studies by Stotland, Zander, and Natsoulos (1961), Burnstein, Stotland, and Zander (1961), and others which describe modeling effects in experimental situations similar in arrangement for the arousal experiment (p.301). For example Klinger notes that studies by Rosenthal (1963) and Rosenthal, Parsinger, Kline, and Mulry (1963) provide sufficient data to conclude that the actual hypotheses being tested in the experiment are reflected in the subjects' own behavior. This data also suggested that "the transmission of this "experimenter bias" occurs in the initial minutes of an experimental session and (occurs) primarily by visual means p.301)." Certainly experimenter bias and demand characteristics have been well-documented elsewhere (see Kazdin, 1980). Klinger's point here is that the phenomenon

of modeling and demand characteristics must be considered as a potential component of the arousal process. In this way these components of the experimental process might serve as nonmotivational variables in the motive assessment procedure.

In an unpublished experiment especially designed to test the effect of the experimenter in achievement-arousal studies, Klinger (1966) has demonstrated that the arousal of TAT n Achievement is independent of the supposedly motive-arousing instructions given by the experimenter in a design similar to that outlined by McClelland et al (1949). To obtain his results, Klinger had an actor play the role of the experimenter to three groups of subjects. With each group, the actor played the role of either an achievement-oriented, neutral, or affiliative experimenter. The groups were all shown the same four TAT-like slides, and the resultant protocols yielded the expected differences in n Achievement. However, Klinger had also arranged for three additional groups of subjects to view the experimenter on television without sound. These subjects were not exposed to any verbal cues, and could not attend to the motive-arousing instructions by the experimenter. In spite of their auditory isolation, the subjects produced TAT protocols with n Achievement scores similar to those in the original experiments by McClelland. This finding argues against the claim that it is (in the case of n Achievement) the instructions which arose the particular motive. Klinger notes:

Thus, the TAT n Achievement at least can primarily reflect situational factors other than specific motivational arousal (p.302.).

The specification of exactly what is being aroused - motives or nonmotives - continues to be a problem for researchers.

In sum, critics of the fantasy-based measures of motive assessment, as well as of the motive arousal procedure, have not been found wanting of empirical results to support their claims. The chief concerns center on problems of reliability and predictive validity. The issue of convergent validity has also been raised since fantasy-based measures of motives - - the TAT among them - - do not always correlate positively in the other types of measures which present themselves as intuitively similar. Klinger concludes:

...test-retest correlations are generally either low or nonsignificant for...the TAT...The instability of the scores might contribute to the frequent failure to find n Achievement related to long-term nonfantasy indices of performance. However, since inter-scorer reliability is high, and since the replicability of certain effects on n Achievement is satisfactory, the fact of instability would seem to reach beyond a problem simply of an undesirable psychometric property of the measuring instruments to a question of validity, of whether n achievement scores are sufficiently independent of extraneous influences to constitute a measure of enduring motivational disposition... It seems clear that whatever n Achievement scores measure is quite ephemeral, capable of registering differently in fantasy as contrasted with cognitive task instruments, and differently at different times in the same experimental session with the same or similar instruments (p.300).

## Rebuttals by McClelland and Atkinson

The problems with the TAT and other projective measures of motives - reliability, convergent and predictive validity, experimenter effects, etc. - have been discussed by McClelland and others over the past few decades (Atkinson, 1981; Atkinson & Birch, 1978; McClelland, 1951, 1971, 1980; Royce, 1979). Still, questions and confrontations remain between both sides.

McClelland has recently (1980) readdressed the charges of low reliability and validity for the TAT measure by drawing a distinction between two major classes of measures: operant and respondent.

Operant measures are defined as open-ended tasks which allow the subject more variability and flexibility in his or her response. More importantly, though, the term operant is used because in participating with such measures as the TAT, both the subject and the experimenter cannot be certain of the exact nature of the stimulus cue. McClelland (1980) writes:

...(with the TAT) we were obtaining a sample of a person's behavior or thoughts in a standardized situation. I prefer to refer to these thought samples as operant because in Skinner's sense it is not possible to identify the exact stimulus that elicits them. More generally speaking they are responses that the subject generates spontaneously. Neither the stimulus nor the response nor the instructional set is strictly controlled by the experimenter (p.3).

Operant measures are contrasted, according to McClelland, with respondent measure, e.g., self-report questionnaires and checklists. In these measures the stimulus cue is indeed specified, as is the response and the instructional set. In personality measures such as these the intent of the experimenter is usually quite clear, and subjects do not have to conceptualize their behavior in the way they have to for operant measures (McClelland, 1980). In respondent measures, then, an experimenter exercises a significant amount of control over a subject's responses through the design of the measure and instructions. In operant measures like the TAT however, the experimenter cannot exert the same degree of control over the responses of subjects.

McClelland's explanation of poor convergent validity directly results from this distinction between operant and respondent measures. Results from a questionnaire or similar respondent personality test should not, according to McClelland, correlate with the fantasy-based motive scores because the two measures involved - operant and respondent - are not measuring the same thing. Operant measures assess motives, whereas respondent measures assess cognitively-based "schemas". McClelland similarly distinguishes between notation: n Achievement is obtained from the coding of operant thoughts related to achievement, whereas v (for value) Achievement results from respondent measures. These are

estimates of two different aspects of personality: motives, which are usually unconscious, and values, which are conscious belief statements. These two classes of responses should not be expected to consistently correlate with each other since operant and respondent measures generally tap theoretically distinct aspects of personality (McClelland, 1980). This distinction explains many of the problems with reliability and validity cited earlier. For example, if n Achievement scores for an individual do not correlate significantly with a self-report measure of achievement, this does not disprove the fantasy-based measure. Rather, one measure is tapping an unconscious motive, and the other is drawing on conscious beliefs which might be associated with numerous external inputs (e.g., task demands). As an additional example, recall that in the first validation study for intimacy motive and who were rated highly by their peers on such adjectives as "sincere", "loving", and "natural", did not ascribe to themselves those qualities mentioned by their peers. This discrepancy between an operant and a respondent measure, then, need not be cause for alarm or, further, for "throwing out" the data from projective techniques. The two types of measures tap different domains, and it is this distinction which McClelland considers vital.

McClelland has reviewed data demonstrating the poor correlation between n Achievement and school performance.



What the critics forget to consider, McClelland explains, is the general theory of behavior associated with motives first put forth over 30 years ago (McClelland, 1951). In evaluating school performance, or any kind of performance situation, experimenters need to be cognizant of the fact that moderate risk-taking is the chief incentive for high n Achievement people (McClelland, 1980). McClelland writes:

They (high n Achievement people) will work harder than other people when the probability of success is moderate but not if the probability of success is very high or very low. How could such an elementary theoretical point have been overlooked by so many people, including such assiduous collectors of evidence on the relation of n Achievement to performance as Klinger (1966) and Entwisle (1972)? (McClelland, 1980, p.6).

McClelland concludes his rebuttal by mentioning that since the incentive conditions are not known for the studies cited by Klinger and Entwisle, a correct index of the relationship between n achievement and performance cannot be reliably made.

Although fantasy-based measures of social motives have not been shown to predict school performance, they have demonstrated their predictive utility in other situations. In a brief review of the research designed to examine the question of whether operant thought variables predict real life outcomes, McClelland reviews recent research (McClelland, 1975) linking operant thought measures of the "leadership motive pattern" with better leaders and managers. Using the motive measures of n Power and n Affiliation, more successful senior naval officers, as well as successful senior

business manager, could be predicted.

Briefly, McClelland defined the leadership motive pattern as consisting of average or above average scores in n Power. This n Power score should be greater than the n Affiliation score. Additionally, the protocols which define the leadership motive pattern should show an absence of the word "not" which signifies an inhibition of action. Thus, McClelland has demonstrated that successful leaders are "... interested in exercising influence, who are well controlled, but are not concerned with being liked...(1980, p.11)."

McClelland goes on to mention that although the operant method could indeed predict future performance, an "objective" respondent measure - the Strong-Campbell Vocational Interest Blank (Strong & Campbell, 1969) - could not. This data is even more impressive in that predictions for future success were made over 16 years from leadership motive patterns assessed at the beginning of testing. McClelland elaborates on the predictive power of both operant and respondent measures by stressing that operant measures predict operant outcomes, and respondent measures predict respondent outcomes. Both variables need to be studied to give a full understanding of human motives.

In exploring the question of reliability, McClelland stresses that respondent measures are more "consistent" than operant measures because what they ask refers to information which does not change over time, e.g., past experiences,

habits, etc. Questions such as, "Do you date frequently?", "Have you gotten into any trouble with the law?", are going to be answered consistently one way no matter how many times they are asked because they refer to events and experiences which do not change. As McClelland notes, "Objective tests like the MMPI are made up of a great deal of questions such as these (factual questions). However, high test-retest correlations do not prove the presence of anything except the subject's tendency to give truthful answers about the past (McClelland, 1980, p.18)."

Turning to operant measures like the TAT, McClelland once again stresses that a closer examination of the task must be accomplished in order to understand the low reliability values. For example, when subjects retake the TAT, in an effort to be original and creative, they will rarely repeat the same story. "The very word 'imaginative' implies thinking something different just as words like "be honest, tell how you really feel" imply being truthful and therefore consistent (McClelland, 1980, p.19)."

McClelland adds that a principle known as the "associative refractory phase" operates in individuals to avoid telling the same story twice. As McClelland points out, in clinical settings if the same or similar response is repeated, then psychological abnormality is often suspected.

In conclusion, McClelland claims that the time-honored principles of psychometric theory cannot be applied to

operant measures. Test-retest and internal reliability coefficients cannot estimate the true reliability of operant measures.

Although respondent measures can adequately demonstrate high reliability figures according to current psychometric logic, what they gain in reliability they also lose in sensitivity. It is precisely this difference of sensitivity of measurement which separates operant measures from respondent ones. McClelland (1980) concludes:

If due caution is exercised, operant thought measures of differences in motive strength have great value for understanding general trends in operant behavior. Questionnaires or respondent measures have less utility for this purpose but as measures of values and attitudes are important for predicting responses to particular situations. The best type of personality study will employ operant measures of motives, respondent measures of schemata, and measures of habitual responses (traits) to predict behavior. (p.30).

Atkinson addresses the criticisms of projective measurement techniques for motive assessment by calling into question some fundamental tenets of classical test theory. Realizing that researchers look at low reliability indices for social motives and therefore assume that the construct cannot be valid, Atkinson has developed an advanced motivational theory which he refers to as the "dynamics of action (Atkinson & Birch, 1970)". This theoretical view emphasizes behavior as a stream of activity, continuous and interdependent, instead of a series of disparate unrelated responses to various situations (Atkinson, 1981).

Emphasizing the dynamic, rather the static aspects of personality, Atkinson explains why motives are not expressed in consistent behavioral patterns from situation to situation. His findings are directly relevant to the thematic coding of thought samples, since one of the chief criticisms leveled against the TAT methodology is that there are often inconsistent results from one testing situation to another.

Although a detailed treatment of Atkinson's model is not possible in the scope of this presentation, a few essential aspects of the theory will help to convey its core beliefs. Atkinson (1981) writes of a "hierarchy of behavioral tendencies" which necessarily guide activity and constitute the particular state of motivation of the individual at any given time. This hierarchy of response tendencies implies an assumption of behavior quite unrelated to the behavioral implications of clinical test theory.

This assumption states that successive incidents - successive behaviors - are not unrelated and discrete, but rather flow one from the other as a resultant interplay between thought and environment. Behavioral response tendencies vary in strength, some increasing while others are decreasing. It is the interplay of a number of forces - behavioral tendencies especially - which determine a particular activity. Atkinson writes:

...the individual emits actions that are influenced by the immediate situation (if one takes the viewpoint of external observer). And we think that

this voluntary behavior may be mediated by the content of conscious thought... Both overt, observable activity and covert activity, or thought, are conceived as streams of behavior characterized by change from one activity to another even when the immediate environment or situation is constant.

And further,

In other words, in a given situation a tendency expressed in an activity will rise or fall in strength, as will the consummatory force of the activity, until finally, if expressed in behavior long enough, the tendency becomes stable. (Atkinson, 1981, p.121).

The implications of the theory of action are critical. According to the model, the strength of individual motives vary, regulated by the rate at which they are aroused. Consequently, any motive is not a static and fixed variable, but a tendency which fluctuates, as it is affected by and influencing other variables. Interestingly, Atkinson affirms Murray's original definition of a motive in which he stressed that the potency of a motive often varies within an individual at different times. Atkinson writes:

One can also see why systematic variability is expected in the  $n$  Achievement scores obtained in a series of stories on one occasion. The final strengths of the various tendencies at the end of the first story, which are assumed to persist to influence the second story, are systematically different from what they were at the beginning of the first story. Here is the continuity that is missing in the traditional episodic paradigm of psychology that assumes discontinuity and the independence of successive behavioral incidents (Atkinson, 1981, p.118).

With regard to behavior it is its continuity and not the discrete and independent conceptualization of classical test theory that best describes the dynamics of action (Atkinson, 1970, 1981).

Looking at motive scores which vary picture to picture and administration to administration (hence low reliability in the current psychometric sense) does not imply a lack of actual validity or reliability for the measure. The principles of classical test theory are inadequate to explain these seemingly inconsistent results, because motives vary in intensity as a result of several factors (e.g., response tendencies) not previously considered. That each TAT protocol, or even each story, should correlate with other measures of the motive is incorrect, McClelland adds, "...response tendencies rise and fall, alternate with and influence each other so that it is incorrect, as in traditional psychometric theory, to treat each story as an independent assay of a characteristic which ought to correlate highly with every other independent assay of the characteristic (p.35)."

It would appear, as Atkinson puts it, that "(the) old bone of contention about the scientific status of thematic apperception can now be buried in a grave already prepared by its critics (e.g., Entwisle, 1972) and intended for the method itself (Atkinson, 1981, p.123)." Certainly both the theoretical and empirical evidence mustered by McClelland, Atkinson, and others, defends the operant thought sampling method for social motives. At the heart of the disagreement are two very essential differences: (1) the contention that classical test theory is inadequate and obsolete to accurately estimate the reliability of the thematic scoring of

thought samples, and (2) that there are fundamentally two different kinds of measures, operant and respondent, which vary in terms of the amount of control both the subject and experimenter can have over the stimulus and the response. This latter difference can result in confounding respondent measures, which reflect cognitive, belief-oriented "schemas", with operant measures, which genuinely reflect social motives.

### The Sentence Completion Measure

It is necessary to examine the utility of the new sentence completion measure of intimacy motivation in light of the different views on the TAT. Specifically, the question of how this measure will add to and/or improve on our knowledge of social motives needs to be addressed.

The search for an alternate operant method of motive assessment - the sentence completion measure - occurs for two main reasons. First, it has been noted that "for obvious reasons psychologists do not like coding stories written to pictures; it is expensive, time consuming, and difficult to train scorers to high coding reliability (McClelland, 1980, p.2 )." Considering the ten scoring categories of the intimacy motive, this statement appears especially relevant. It is hoped that in developing an alternate operant method of assessing the intimacy motive using the sentence completion measure, greater economy in administration and scoring time will result. This is not a small consideration given



our awareness of the testing session and possible experimenter effects which result from lengthy administration procedures.

The second reason for undertaking the present study is, perhaps, more directly related to increasing a theoretical understanding of motives. McAdams notes that constructs "such as power and intimacy motivation continue to suffer, in a scientific sense, by being tied to only one method of measurement - the thematic coding of fantasy (1982a, p.163)." Furthermore, it has been previously cited (McClelland, 1958, p.31) that the strengths of the TAT are also its weaknesses. Because of its sensitivity to motivational variables the TAT may register factors other than motivational ones, making it difficult to get stable and replicable results. Preceding Klinger's (1966) criticism of nonmotivational variables confounding the TAT results, McClelland acknowledged (1958) that a variety of variables other than the motive in question may influence fantasy-based measures (e.g., the associative refractory phase, the type of cue used to elicit the fantasy, etc.). Although McClelland's solution is to stress the standardization of administration and scoring procedures, the entire problem of interfering variables remains a central problem (Entwistle, 1972; Klinger, 1966).

The new sentence completion measure not only seeks to improve on the TAT methodology in terms of brevity in administration and scoring, but also by offering an important

alternative which is at once operant in nature yet potentially different in its sensitivity. The unique design of the sentence completion test affords the opportunity for gathering projective data using different stimuli than the TAT. It is thought that the sentence stems provide additional structure in assisting subjects to organize their response. The change in emphasis from one of imagination and story construction to one of sentence construction is thought to highlight more beliefs and values of subjects, without leaving the realm of operant measurement. The success of this measure would offer an alternative operant technique to the assessment of the intimacy motive which, when used in conjunction with other operant measures (possibly the TAT), would allow for the utilization of "multiple operant perspectives" on the intimacy motive (McAdams, 1982a, p.164).

Through the use of additional operant techniques - such as the sentence completion test- which do not have the same methodological vulnerabilities as the TAT, our knowledge of motive assessment and consequently of motive behavior can increase. If the present system is successful in measuring the intimacy motive, it is hoped that the measure would be extended to other motives (power, achievement, etc.) in an attempt to attain an "arsenarium" of operant techniques for measuring motives.

In conclusion, the success of the sentence completion test will improve on the TAT methodology immediately by

offering a more economical means of motive assessment. The more substantial contribution of the present work, however, lies in its potential contribution to our knowledge of intimacy motivation specifically and the behavior of social motives in general.

#### Recent Research with the Sentence Completion Test

The incomplete sentence method in a laboratory setting was first employed by Ebbinghaus (1897) in Europe and later by Trabue (1916) in this country to assess language and reading capability. The method was initially proposed for use as a projective technique in 1930 by Tandler, and until the early 1950's enjoyed a quite active position in the research journals (e.g., Lorge & Thorndike, 1941; Payne, 1928; Rohde, 1946; Rotter, Rafferty, & Schachtitz, 1949; Tandler, 1930).

Early research into the sentence completion measure as a projective technique occurred within the armed services and government-related agencies, specifically in the Office of Strategic Services Assessment Program (Murray & MacKinnon, 1946) and the Veterans Administration (Holzberg, Teicher, & Taylor, 1947; Hutt, 1945; Shor, 1946). It was used primarily as an instrument for measuring personal adjustment, and, during the 1940's, several studies were attempted to examine its reliability and validity (Rotter, Rafferty, & Schachtitz, 1949; Rotter & Wellerman, 1947; Shor, 1946; Stein, 1947; Symonds, 1947).

Although the sentence completion method has been used to study areas as widely diverse as racial attitudes, psychological adjustment, counselor training, and schizophrenic language, research into the assessment of social motives with the sentence completion method has rarely been attempted. Only two studies report relevant findings.

In one experiment designed to compare the results of TAT administration in a group format with that of an individual one, Lindzey & Herman (1954) also administered a sentence completion measure. Both the TAT and the sentence completion test were later scored for happiness, the intensity of sexual needs, sexual conflict, and dependency. A Likert-type scale was used in scoring the sentence completions on each variable. For example, in measuring happiness, if a subject made an overt reference to a positive affect akin to feeling happy, the sentence was scored +1. If no mention of affect was made, a 0 would be registered. If the subject indicated feeling negatively, a -1 was scored. A similar method was adopted for rating the other variables.

The results indicate low correlations overall between the TAT and the sentence completion measure. In particular, the variables of sexual need and sexual conflict were most highly correlated with the TAT, attaining significance at  $p = .05$ . Since the actual purpose of the experiment was to explore differences in group vs. individual TAT administrations, it is interesting to note that the correlations

between the sentence completion measure and the TAT occurred most significantly when the TAT was administered in group format.

A second study into the assessment of three different variables, dependency, anxiety, and hostility - demonstrates one of the first attempts with the sentence completion method for measuring personality variables via an objective manual to codify responses (Renner, Maher, & Campbell, 1962). The Rotter Incomplete Sentences Blank (RISB) was administered to equal numbers of male and female subjects. A manual was devised which contained a series of behavioral referents which allowed scorers to be quickly trained in rating each variable. Estimates of interrater reliability were between  $+0.83$  and  $+0.94$ . In addition to taking the sentence completion test, measures were also obtained on self-report questionnaires and peer ratings.

Using the multitrait-multimethod matrix to compare intercorrelations among the three variables as measured by three methods - sentence completion test, peer ratings, and self-report questionnaire - the sentence completion scoring system devised by Renner et al. provided an independent and discriminately valid method for measuring the three traits.

Perhaps the best-known research with the sentence completion method has been that of Loevinger (1976) in measuring the construct referred to as ego development. Using 36 sentence stems known as the Washington University Sentence

Completion Test (WUSCT), Loevinger developed an elaborate scoring system (Loevinger, Wessler, & Redman, 1970) to estimate an individual's particular level of ego development.

The WUSCT categorizes each individual response according to a highly-developed seven-stage scale of ego development, or, as Loevinger refers to it, "I-level". The stages are further differentiated into categories, and an extensive scoring manual giving several scoring examples and the theoretical rationale for each level is provided. The seven levels at which the 36 sentences are rated are: presocial and symbiotic, impulsive, self-protective, conformist, conscientious, autonomous, and integrated. Once all 36 responses have been scored, a total or composite score for the entire protocol is calculated.

One of the most alien aspects of Loevinger's research has been her unwavering commitment to the interdependent and necessary relationship between theory and measurement. Given a construct as broad and polymorphic as "ego development", Loevinger has utilized a scoring method which highlights all the differentiated aspects of the construct. Her results certainly endorse the usefulness of the sentence completion test as a measure with not only flexibility and versatility, but also as a substantive psychometric tool.

In concluding a review of the literature with respect to the sentence completion test, three observations can be made. First, the sentence completion test has a long

research history. It has been used for a diversity of assessments and in a variety of ways (e.g., with or without a scoring manual, varying sentence stems, differing lengths, etc.). Overall, its best performance is demonstrated in the area of estimating psychological adjustment (Goldberg, 1965). Second, the assessment of social motives (power, achievement, affiliation, etc.) with the sentence completion method has been very limited. There are but a few and unrelated studies, often providing data only as an incidental result to the main purpose of the research (e.g., Lindzey & Herman 1954).

Lastly, even fewer studies have been undertaken to explore the relationship between the operant measures most important for this study: the sentence completion test and the TAT. When used together they appear to provide moderately correlated results (Lindzey & Herman, 1954). The present study will be unique in that it seeks to improve on these last two conditions. The present study is explicitly designed to study intimacy motivation via the sentence completion method, and can also be compared in performance to the TAT.

In light of the absence of research comparing the sentence completion test with the TAT, it is important to mention the observation of Goldberg (1965) who, in a comprehensive review of the sentence completion literature published before 1965, wrote:

The sentence completion has not often been placed in direct competition with other projective devices, but when it has, it seems to have more than held its own. Murray, et al., (1948) report that a sentence completion test was added to their evaluative techniques as an after-thought. After examining the performance of all tests, it was the only projective device they believed was worth retaining in their program. Certainly, if one compares the findings of standard reviews of the validity of other projective techniques, the support for the validity of the sentence completion method becomes even more impressive (p.39).

### Experimental Hypotheses

The purpose of this experiment is to develop and to validate an alternative projective method of measuring intimacy motivation in adults. Although the more traditional method of assessing motives - the TAT - has been extensively studied, other measures of motive assessment have not. This reliance on primarily one operant method can result in a biased and skewed understanding of the motive. The proposed method utilizes a sentence completion test which will depart minimally from the theoretical principles of the existing measure.

Relying on the completion of established sentence stems, it is thought that (1) the tasks of administration and scoring would be made simpler, and (2) that the material elicited from this operant technique may be different in quality from the information gathered via the TAT.

The present experiment seeks to cross-validate the newly devised scoring system by administering five measures



to a group of subjects at two intervals: the initiation and the termination of a graduate-level course designed to teach counseling-related skills such as empathic listening, group dynamics, and self-expression. The five measures administered in a pre- and post- test fashion are: (1) the sentence completion test, (2) the TAT, (3) selected scales from the Jackson Personality Research Form (Jackson, 1967), (4) the Adjective checklist (Gough & Heilbrun, 1972), and (5) the Liking People Scale (Filsinger, 1981).

The specific hypotheses which are being tested are: (1) that the post-test intimacy scores of the two projective measures - the TAT and the sentence completion test - will show a significantly higher difference than the pre-test measures since the course is viewed as an intervening treatment; and (2) that the individual student evaluations which are routinely completed on each student at the close of the course should demonstrate a positive correlation with their final intimacy scores, indicating progress and improvement as a function of the course.

## CHAPTER III

### DERIVATION OF THE SCORING SYSTEM

#### Method

The method used in the development of the sentence completion scoring system for the intimacy motive involved an initial examination of sentence completions from archival data ( $N = 30$ ). This group constituted the derivation sample. All subjects were recent undergraduates (male and female) in an introductory psychology course. Data on these individuals included both the sentence completion exercise and the TAT, which had been scored for intimacy motivation. By examining the sentence completion protocols of high and low intimacy subjects, particular recurrent themes were identified. Upon the initial reading of the protocols, seven themes appeared salient in the sentence completions of the high intimacy subjects. These seven themes were:

- (1) number of interpersonal responses
- (2) equality of sexes/role reversal
- (3) inner peace
- (4) loyalty/sacrifice
- (5) quality of affect
- (6) transecedent needs
- (7) disobedience of laws

When the sentence completion protocols were reexamined with these themes, it was found that many of the categories

could be consolidated. For example, theses 3 and 6 are very similar in the way they are expressed in the protocols. The following three categories were formed by combining these seven themes:

- I. Interpersonal responses. Subjects high in intimacy found to include others in their sentences more often than low intimacy subjects.
- II. Relationship intent. Those subjects high in intimacy motivation included more altruistic and 'other-centered' responses in their protocols than did low intimacy subjects.
- III. Emotional quality. The completed sentences of high intimacy subjects included more overt expressions of love, happiness, joy, etc., than did low intimacy subjects.

A manual was developed to provide examples for reliable scoring (see next section). Throughout the derivation phase, however, the author was the sole scorer for the sentence completion protocols. The sentence completions from the derivation sample were then rescored according to these three categories. This scoring was done without the knowledge of the subjects' TAT intimacy score.

The sentence stems used throughout the experiment were the first twelve stems of Loevinger's WUSCT plus six original stems designed by the author to pull for intimacy-related information. A total of eighteen stems (see Appendix I) was administered. It should be noted that in the derivation phase a separate set of sentence completion protocols was given to males and to females as originally instructed by Loevinger et al. (1970 these stems appear in Appendix

II). In the cross-validation phase, however, one sentence completion form was synthesized from the two separate forms.

Statistical analysis showed a low to moderate overall correlation between the TAT intimacy scores and the three scoring categories for the sentence completion system. Pearson product-moment coefficients were calculated for the subject's TAT score and nine scoring system variables: (1) category I for the first twelve stems (Loevinger's stems), (2) category II for the first twelve stems, (3) category III for the first twelve stems, (4) categories I, II and III for the first twelve stems, (5) category I for the last six stems, (6) category II for the last six stems, (7) category III for the last six stems, (8) categories I, II and III for the last six stems, and (9) all categories for all stems. These data revealed adequate support for a more rigorous cross-validation experiment (Chapter IV).

## Results

The three thematic categories used in the scoring of the sentence completion protocols for intimacy motivation are: (1) interpersonal response, (2) relationship intent, and (3) emotional quality. These categories were selected because of their relevance to the differential assessment of the intimacy motive. A description of each category with scoring examples follows:

## I. Interpersonal Response.

Description: This initial category is scored if the sentence completion either explicitly or implicitly indicates the presence of involvement of another person, or specifically mentions the self as other. The role that this individual(s) takes may be of a passive or active nature in terms of the sentence completion generated. All that is necessary to fulfill this category is the presence of a significant other. Some of the stems are "loaded" for an interpersonal response (e.g., "If I had sexual relations..."). These should be scored almost routinely as an interpersonal response unless the response is highly contradictory to the interpersonal stem or if the stem is left blank. If there is no interpersonal involvement none of the subsequent categories are considered for scoring.

Examples: See page 70

71

72

73

Scoring: Present, +1; Absent, 0.

Examples

<u>Stem</u>	<u>Response</u>	<u>Score</u>	<u>Comments</u>
A. If I had more money	1. I'd go to Europe.	0	No involvement with another.
	2. I'd be more generous.	1	Implied: Others would receive.
	3. I'd give it to the poor.	1	"
	4. I'd pay off all my debts.	0	No one else beside author mentioned.
	5. I'd fly to Florida and visit my parents.	1	"Parents" are clearly other people.
B. A wife should...	1. want to be a wife.	0	No one else besides author mentioned.
	2. help her husband.	1	"Husband" refers to another.
	3. expect her husband to share the responsibilities of the home equally.	1	"
	4. be herself.	0	No one else besides author mentioned.

<u>Stem</u>	<u>Response</u>	<u>Score</u>	<u>Comments</u>
	5. love her family	1	"Family" clearly refers to others.
C. The thing I like most about myself is...	1. that I'm honest and I try.	0	No one else besides author mentioned.
	2. that I'm outgoing.	1	"Outgoing" is a descriptive adjective which refers to interpersonal behavior and to other people.
	3. my interest in a wide variety of people.	1	Others are clearly identified by the response.
	4. I can stand alone. I believe in life and I am prepared to search for ways in which I can be fully alive and how I can work with others in that struggle.	1	"
	5. name and my inner happiness.	0	"Inner happiness" is vague, and neither refers to other people.
	6. I enjoy being me.	0	Does not refer to other people
	7. my optimism.	0	"

<u>Stem</u>	<u>Response</u>	<u>Score</u>	<u>Comments</u>
	8. I am a good listener and able to help them in their time of need.	1	Others present
D. A person feels good when...	1. he is complemented.	1	Another person is identified.
	2. they share freely with a trustworthy person.	1	"
	3. someone loves her.	1	"
	4. they are at peace with those who are important to them.	1	"
	5. they can buy new clothes.	0	No other people are involved.
	6. they have come to a good image of themselves.	0	"
	7. they are affirmed.	1	Although others are not explicitly mentioned, "affirmed" is a descriptive adjective which refers to interpersonal behavior and to other people.



<u>Stem</u>	<u>Response</u>	<u>Score</u>	<u>Comments</u>
E. I could be perfectly happy if...	1. I saw the Beatific Vision.	0	Vague response and no mention of other people.
	2. I lived with like-minded people.	1	Other people clearly indicated by response.
	3. I won the lottery.	0	No other people are involved.
	4. I had a better childhood.	0	Not specific enough.
	5. my mother would stop yelling at me.	1	"mother" indicated a specified other.
	6. I really believed in myself and in others.	1	Other people clearly indicated by response.

## II. Relationship Intent.

Description: The intent and purpose of the relationship is being assessed in this category. If the inherent quality of the sentence completion scenario is exploitative in any way, that is, if the primary relationship in question serves a utilitarian and self-promotive function with respect to the writer, then the appropriate category is scored. This category includes outright exploitation for another for personal advantage, the fear of being exploited or taken advantage of, and the response which, although it may be less personalized, shows evidence of someone else being used or taken advantage of.

If the response indicates that those involved in the statement are working together and cooperatively towards some goal, or are involved equally in the experiencing of an event, then the appropriate category is scored for. This category is also employed if the criteria are non-applicable to the response. A definite distinction must be made, however, between subordinate relationships in the sentence completion scenario (e.g., boss and worker, teacher and student, etc.) and the actual exploitation of another.

The third subcategory describes the significant other or the significant relationship as an end in themselves. This is the goal of the response. Qualities such as concern for others, respect, admiration, friendliness, loyalty,

empathy, liking, loving, sympathy, transcendence, and giving are all indicated here. Also all elements which contribute to the growth and development of the other. The focus of this category is on the concern and regard with which the writer esteems the other or the significant relationship. This other person should be prized for who they are, and not what they can provide, or for what means they can serve toward a particular end. This category is also indicated if the writer relates the impression that the relationship should be of this caliber and regrets that it is not.

Examples:    See page 76

77

78

79

Scoring: Exploitative, -1; Instrumental, 0; Relational, +1.

Examples:

<u>Stem</u>	<u>Response</u>	<u>Score</u>	<u>Comments</u>
A. My husband/wife will...	1. have to be someone who loves me deeply for who I am.	+1	"love"; person is an end, not a means to an end.
	2. do his best and trust in himself	0	Neutral
	3. prepare the meals three times a week.	-1	Response describes the usefulness of another person with respect to a particular function they provide.
	4. be a great person.	0	Neutral
	5. spend time with me and with our children.	+1	"spend time with" implies a prizing of the other(s) for what they can provide.
	6. equal in status with me.	0	Equality response.
B. A good father...	1. loves his family and tries to be understanding.	+1	"loves", "understanding" are both relational.
	2. is what I'd like to be.	0	Neutral
	3. is one who knows and loves his children.	+1	"loves" is relational.

<u>Stem</u>	<u>Response</u>	<u>Score</u>	<u>Comments</u>
	4. takes care of his loved ones.	+1	"loved ones" is relational.
	5. makes sure everyone pulls their own weight	-1	Response indicates concern for what people can do or provide.
C. I believe most people...	1. are good.	0	Vague.
	2. are warm and care about their fellow men.	+1	Concern for others.
	3. are out to get what they can from you.	-1	Fear of being exploited.
	4. are honest and trustworthy.	+1	"honest", "trustworthy" are relational.
	5. do not trust each other.	-1	Response implies distrust and fear of being taken advantage of.
D. I could be perfectly happy if...	1. I had no material wealth in the world but was at peace with myself.	+1	"at peace with myself" indicates that the self as other is indicated here, hence its inclusion. That relationship refers to the relational category ("at peace").

<u>Stem</u>	<u>Response</u>	<u>Score</u>	<u>Comments</u>
	2. I was done with school and had a good job and a good family.	0	Neutral
	3. all people were as friendly as me.	+1	"Friendly" indicates the intent of the relationship.
	4. I had a lover.	0	Not enough information is known to determine whether "lover" implies mutuality or exploitation.
	5. I could be my own person.	+1	Response indicates a "Being" rather than a "doing" statement.
	6. be with my friend.	+1	Response indicates a preference for "friend" because of <u>who</u> they are.
E. My husband/wife will...	1. meet my needs.	-1	Response describes them in terms of what they can provide.
	2. share responsibilities in the home.	0	"share" implies mutuality.
	3. be pampered by me.	+1	Response indicates a desire to please another.
	4. be someone who loves me deeply for who I am.	+1	"Who I am" indicates the relational category.

<u>Stem</u>	<u>Response</u>	<u>Score</u>	<u>Comments</u>
5.	be a great person.	0	Vague
6.	be successful.	0	"

### III. Emotional Quality.

Description: This category assesses the emotional tone of a subject's sentence completion. Often the emotional quality will refer to a specific person or relationship (e.g., "Not even my best friend knows that I sometimes dislike her."). Occasionally, the response will express emotionality which is not directed at any one (e.g., "I am usually sad."). As criteria, the following emotions, if present, are to be scored in the initial category of positive affect: joy, happiness, excitement, keen interest, love, and liking.

If emotional involvement is not appropriate to the response, or the response involves a task or process whereby it is void of any emotional quality, then this indicates a neutral classification. This is also scored for when ambivalence predominates as the affective tone of an interaction.

The third sub-category is scored for in the presence of negative emotions. Specifically, these include: fear, anger, disgust (contempt), hatred, sadness, depression, gloom, shame, and non-liking. The presence of guilt or shame is also scored for here.

Scoring: Negative Affect, -1; Neutral Affect, 0; Positive affect, +1.

Examples: See page 81

82

83



<u>Stem</u>	<u>Response</u>	<u>Score</u>	<u>Comments</u>
A. When I am criticized...	1. I get very upset and withdraw and feel that I have been put down personally and rejected.	-1	"Upset" implies feelings of sadness and depression.
	2. I take it.	0	Neutral affect.
	3. I sometimes overreact, and become hurt or sullen.	-1	"Hurt" implies a negative affect.
	4. I take it at face value.	0	Neutral affect.
B. Not even my best friend knows that I...	1. I am worried about the future of my family.	-1	"Worried" implies a negative affect.
	2. cry secretly.	-1	Negative affect ("cry").
	3. am struggling to act as an adult, not as a little girl.	0	Neutral affect.
	4. feel guilty a lot.	-1	Negative affect ("guilty").
	5. am uncertain about the future.	0	Neutral affect.
	6. am lonely and afraid.	-1	Negative affect.
	7. am thrilled to have him as a friend.	+1	Positive affect.

<u>Stem</u>	<u>Response</u>	<u>Score</u>	<u>Comments</u>
C. Education...	1. is important to me.	0	Neutral affect.
	2. is a pain in the neck!	-1	Negative affect.
	3. is something I enjoy and appreciate.	+1	Postive affect
	4. has opened up my potential but isn't everything in life.	0	Neutral affect.
D. My feeling about married life is...	1. its great for some but not for everyone.	+5	Compound response.
	2. it's very special and something unique.	0	Neutral.
	3. that it's teamwork and together both partners have to work to make the marriage happy.	+1	Postive affect.
	4. traditional.	0	Neutral.
	5. it is a journey with another human being in and through life.	0	Neutral.
	6. that it is an impossible and curious institution which causes people unnecessary suffering.	-1	Negative affect.

<u>Stem</u>	<u>Response</u>	<u>Score</u>	<u>Comments</u>
	7. that it's good.	0	Neutral affect ("good" does not necessarily refer to an emotion.)
E. I am...	1. continually developing my self-esteem.	0	Neutral affect.
	2. depressed.	-1	Negative affect.
	3. completely unique.	0	Neutral affect.
	4. feeling good right now.	+1	Positive affect.
	5. a sophomore in college.	0	Neutral affect.
	6. happy with my life the way it is now.	+1	Positive affect.
	7. a person who loves life.	+1	Positive affect

## DISCUSSION

The two methods of intimacy motivation assessment, the TAT and the sentence completion test, share distinct commonalities and contrasts in theory as well as practice. This section will examine the similarities and differences between these two methods of motive assessment.

### Similarities Between the Two Measures

The two measures share a common theoretical background. The derivation of the sentence completion system relies heavily both on the theoretical definition of intimacy as outlined by McAdams (1980) and upon the ability of the TAT to discriminate between high and low intimacy persons. It is not surprising then that the first two categories of the sentence completion scoring system, interpersonal response and nature of the relationship, can also be found in the TAT-based system for intimacy assessment. The third category, nature of affect, is not explicitly scored for in the TAT system. Its underlying principle, however, reflects the notion that high intimacy subjects will more frequently express feelings of positive affect, a premise consonant with the theoretical underpinnings of the intimacy motive (e.g., Maslow, 1968).

Another similarity shared by the two systems involves the nature of the scoring itself. Until the intimacy

motive scoring system, scoring manuals for social motives reflected an "activity" system rather than an "attribute" system (e.g., McClelland et al., 1953). In an activity system of scoring, the individuals in each TAT story need to be doing or achieving something in order to demonstrate motive strength. The intimacy system, and the proposed sentence completion test, depart from this tradition of activity scoring by stressing the quality of the experience over the quantity of the interaction. In other words, in both these characters need not be "doing" anything. Rather, certain qualities are looked for which reflect the general definition of intimacy motivation: the experiencing of a warm, close, and communicative exchange with another person (McAdams, 1980).

### Differences Between the Two Measures

It is, of course, in the dissimilarities between the TAT system and the sentence completion system where the greatest impact for the intimacy motive will be found. There are three major differences between the two methods which will be closely examined. These are: (1) the nature of the sentence completion task, (2) the limited number of scoring categories in the sentence completion system, and (3) the process of scoring for intimacy in the two systems.

It is known that the nature of an assessment task (e.g., a projective v. an objective test) influences the

kind of material given by the subject. Further, since the sentence completion test is a more structured task in comparison with the TAT, it is hypothesized that the sentence completion exercise should yield material qualitatively distinct from that gained by the TAT. The sentence completion test frames a subject's answer more so than a TAT exercise, and the nature of the task is to elicit specific, circumscribed thoughts (sentences) which frequently reflect conscious or unconscious beliefs.

The question of the nature of the sentence completion test has been explored periodically in the research literature (Forer, 1950; Goldberg, 1965; Rotter & Willerman, 1947). Although for the purposes of this work the sentence completion test is assumed to be a projective test, it is important to explore the occasionally differing viewpoints on this issue of the projective nature of the sentence completion test.

Problems have arisen involving the sentence completion method because the measure has been attacked on the grounds that it is not truly a projective test. The sentence completion test has not always been looked upon as a purely projective measure.

Several authors, most notably Lindzey (1959), have sought to amend the projective status of the sentence completion method by referring to it as a "restrictive" projective test. By "restrictive", Lindzey means to convey the test's ability to pull for conscious, as well as

unconscious, material. Forer (1950) adds that the sentence completion test differs from the Rorschach and the TAT in that it is a more "controlled" projective technique (Forer, 1950). By referring to the test in this way, Forer explains that the subject who responds to a sentence completion test exercises more of a conscious and willful censoring of his or her responses in comparison with a TAT or Rorschach subject. Still other researchers are even more conservative in classifying the measure. Hanfmann and Getzels (1953) write:

These results support the clinical impression that the personal material evoked by the sentence fragments is either conscious, or fairly easily accessible to consciousness. This places the (sentence completion test) half way between a projective technique and a questionnaire: a position which, because of its span over levels of different depth, presents definite advantages for personality study (p. 133).

Goldberg (1965) has made a thorough and extensive review of the sentence completion literature and concludes:

...there exists some disagreement as to the nature of the material elicited by sentence completion methods (and) it does seem to be the general view that the sentence completion is truly a projective test. Beyond that, most theorists apparently agree that the material elicited by the sentence completion is typically less dynamic than the material elicited by such tests as the Rorschach, TAT, and projective drawings. All this may be so whether personality is viewed as layered in different levels of psychic functioning, or whether tests are arranged in a hierarchy according to degree of permitted possible projection (p.16).

In this experiment where both the TAT and the newer sentence completion test are administered, it is assumed

that both measures are projective, eliciting from the subject unconscious as well as conscious material. This is not to minimize, however, potential differences in the respective domains of the measures. If the sentence completion task is indeed a more "controlled" projective, or operant, techniques, then there arises a unique opportunity to approach the projective assessment of motives from a slightly less projective angle. The original design of the sentence completion test allows it to be administered as a projective device and, using first- and third-person stems, incorporate less fantasy-based and more reality-based material from the subject's current experience. It is thought that the unique design of this measure will yield projective data related to intimacy motivation in individual persons that is more representative of the person's current life functioning.

The second major difference between the two measures is the number of scoring categories each manual uses to determine the strength of intimacy motivation. The three categories of the sentence completion scoring system lack the specificity of the 10 thematic categories associated with the TAT system. The three categories do reflect, however, the available information related to intimacy motivation one has with an approach like the sentence completion test. Not having a lengthy narrative to examine, these categories measure the three most critical attributes of



intimacy motivation, namely, the presence of another, the kind of relationship embarked upon, and the overall emotional quality of the interaction. Although this lacks the differentiation of the TAT-based system, these categories adequately represent the more salient dimensions of intimacy motivation.

Lastly, the newer method differs from the TAT system in terms of the actual scoring. A present/absent method of scoring is used in the TAT system. This means that a particular category (e.g., Surrender) is either present in the subject's response (+1) or it is not (0). In the newer method, however, categories II and III include a gradient of response possibilities from -1 to +1. This variation on the present/absent system allows for the scoring of negative or opposite qualities than the ones in question. For example, category III is scoring not only positive affect or no affect. Instead, the system allows for the scoring of positive, neutral, or negative affect. This method increases the inclusiveness of the categories and, hence, the versatility of the measure.

## CHAPTER IV

### TESTING THE SCORING SYSTEM

#### METHOD

The subjects for this study cross-validating the scoring system were volunteers from a graduate course designed to teach counseling-related skills such as listening and accurate empathy. The subjects received no financial remuneration for their involvement. All 15 subjects (2 males, 13 females) were between the ages of 27 and 49 years.

( $\bar{M}$  = 38.1) and currently enrolled in a graduate department at a large Mid-Western university.

The subjects were told that they would be participating in a study about relationships. They were also told that at two points during the semester course they would be asked to spend approximately  $1\frac{1}{2}$  - 2 hours completing a variety of paper and pencil exercises. The subjects were informed that they were free to withdraw from the study at any time without penalty (see Appendix III). All subjects faithfully completed both phases of the testing.

The first testing session was done in group format within 2 weeks of the first class meeting. The second testing session was completed within the last 2 weeks of the semester and was also done in group format. Both of the

testing sessions included the following five measures administered in this order: (1) the TAT, (2) the Adjective Checklist, (3) the new sentence completion test, (4) selected scales from the Jackson Personality Research Form (Jackson, 1967), and (5) the Liking People Scale (Filsinger, 1981).

The TAT was administered by giving each subject a booklet consisting of five TAT pictures. These pictures were (a) two people sitting on a bench beside a river, (b) a man working at this desk, (c) two men speaking, (d) two trapeze artists, and (e) a man and woman walking in a field in front of two horses. These five pictures were the identical pictures used by McAdams (1979) in some of the original experiments on intimacy motivation (see Appendix IV for a copy of these pictures). Each subject was also given blank sheets of paper on which to write his/her own story. The instructions were to write an imaginative story incorporating the scene (picture) and its characters. The instructions closely followed those suggested by McClelland (1958). A time limit of five minutes for each picture was imposed.

The Adjective Checklist was then administered in its entirety. The directions given were: "Before you are two pages of adjectives. Please go through these quickly, checking off those adjectives which you feel accurately describe your feelings right now." No time limit was given for this measure (See Appendix V).

The 18 sentence stems were given no time limit and the subjects were read the following instructions: "These are 18 incomplete sentences. Please complete each one with whatever makes sense to you. Work quickly but do not rush" (see Appendix VI).

The three scales selected from the Jackson Personality Research Form were achievement, affiliation, and dominance. The items from these three scales constituted a total of 48 sentences to which a subject can answer either true or false. No time limit was imposed during this fourth measure (see Appendix VII).

Lastly, the Liking People Scale was administered (see Appendix VIII). It consists of 15 items to which subjects respond according to a continuum of choices ranging from "strongly agree" to "strongly disagree". This test has no time limit, however subjects were asked throughout each testing session to work quickly.

These five measures were given during both sessions to all 15 subjects. In the second session the participants were encouraged to answer each exercise without concern for their answers given in the earlier session. Repeating measures did not appear to be a problem for any of the subjects. A common concern, for example, was related to the TAT exercise. Subjects frequently wished to know whether they should write the same stories to the pictures which they had done in the first session. They were told that

they were free to choose whatever they wanted to write about. Upon examining the data after both sessions were completed, it was found that no subject repeated a TAT story and that only a few of the subjects repeated any one individual sentence completion item. This procedure of administering the same measures at two points, separated by approximately eleven weeks, did not prove problematic.

Once the data had been collected all identifying information with respect to the subject was removed. Scoring was done blindly by the author. Scoring of the sentence completion test was also accomplished by another rater in order to calculate an interscorer reliability coefficient. This is reported in the following section.

Finally, a sixth measure was introduced at the close of the course. Each teaching assistant working with students from the course was asked to evaluate the subject on nine dimensions such as: the individual's need for close physical proximity to other group members, verbal participation of subjects in group exercises, degree of self-disclosure to other group members, etc. (see Appendix IX). These evaluations have been analyzed and are reported with the rest of the data in the following section.

## RESULTS

### Reliability

Reliability coefficients were calculated in the scoring of both the TAT and the sentence completion test. Prior to scoring the TAT protocols, a rank order coefficient of .87 was calculated between the procedure outlined in the manual for expert TAT intimacy motivation scoring (McAdams, 1979) and the author's scoring. This value was considered sufficiently reliable.

The author recruited a second rater to score the sentence completion measure protocols in order to calculate an interrater reliability coefficient. After becoming thoroughly familiar with the sentence completion scoring manual, the second rater scored 30 sentence completion protocols blindly. A rank order correlation of .78 was found between the scoring of the author and the second rater. This coefficient was considered to be sufficiently reliable for the scoring of the sentence completion protocols.

### Hypothesis 1

It was hypothesized that the post-test intimacy scores of the two projective measures, the TAT and the sentence completion test, would be significantly higher than

the pre-test scores. The course was believed to have an effect on the performance of individuals on these two measures of intimacy motivation because it was designed to teach, both didactically and experientially, qualities similar to those associated with intimacy motivation (McAdams, 1980a). Such qualities include concern for others, accurate empathy, and sensitive interpersonal communication.

Table 3 reports a near-significant trend for increase in TAT intimacy motivation and a significant increase in intimacy motivation for the new sentence completion measure between the beginning and end of the course, TAT  $t(13) = 1.49$ ,  $p = .10$ , one-tail; SC  $t(13) = 2.08$ ,  $p = .05$ , one-tail. This hypothesis was tested using one-tailed tests of significance since the direction of the effect was predicted. These findings provide support for the hypothesis that the sentence completion measure of intimacy motivation would demonstrate an increase between testing sessions.

The TAT and the sentence completion test changed in the same direction, which supported the construct validity of the sentence completion measure.

A central aim of the present study was to design a measure of intimacy motivation which was easier to administer and to score than the TAT yet one which would also be reliable. Although further experimentation is necessary Table 3 indicates that the new sentence completion test

reflects a change in intimacy motivation between testing sessions. This finding is encouraging for the new sentence completion measure which is, from an economic point of view, easier and faster to administer and to score than the TAT.

### Hypothesis 2

It was hypothesized that the evaluations which are routinely completed on the subjects at the end of the semester by four teaching assistants in the course would show a positive correlation with the subjects' intimacy scores from the second testing session. This hypothesis sought to generate further data supporting the effectiveness of the selected treatment variable.

As table 4 shows, no significant positive correlations were reported between the evaluations and the variables selected for study. This nonsignificant finding may be due to several reasons. For example, more than one rater (i.e., teaching assistant) completed the evaluations in this phase of the study. Although the raters were extensively briefed as to the scoring norms they should consider in rating a student on each item, no comprehensive manual was established to teach the raters how to judge each student in a standardized way. Hence, individual bias among the four raters was probably high. The lack of psychometric standardization in this evaluation process provides a ready and likely explanation for the nonsignificant results.



## Other Results

There are other notable findings from the present study which should be mentioned. First, it can be observed that in sessions 1 and 2 the respondent measures of intimacy, i.e., the Adjective Check List, the Personality Research Form, and the Liking People Scale, showed occasional significant correlations with each other. This is an expectable finding, assuming that these three tests all fall within the same class of measures. Certainly, significant correlations within tests, that is, between subscales, is not surprising. Several items from the ACL Nurturance subscale, for example, are identical to the ACL Affiliation subscale. What is less predictable, though, is the correlation of different respondent measures. For example, in session 1, the PRF Affiliation subscale correlates significantly with the Liking People Scale,  $r_s = .66$ ,  $p .05$ . This correlation makes intuitive sense and, upon closer examination, a distinct similarity can be seen between the individual items from each test. This finding is repeated in session 2,  $r_s = .63$ ,  $p .05$ .

It was thought that the new sentence completion measure of intimacy motivation would not correlate with the non-projective measures of intimacy related experience. This prediction is based upon the distinction made by McClelland (1980; 1981) between operant (e.g., TAT) and respondent (e.g., Adjective Check List) measures discussed

earlier. Inherent in this distinction is the assumption that, generally, operant measures will correlate significantly with other operants, and respondent measures will correlate with other respondents.

This hypothesis is only partially supported by the data. Although table 3 reports that only the operant measures of intimacy motivation demonstrate a considerable difference between sessions, within sessions (see Tables 1 & 2) the sentence completion test does not correlate with either the projective or objective tests for sessions 1 and 2. Furthermore, the TAT shows several diverse correlations with respondent measures, e.g.,  $r_s = .63$ ,  $p .05$ , for TAT and ACL Nurturance, Session 2. It was thought that, according to McClelland's distinction, operants would correlate only with other operants, and respondent measures would do the same. Clearly, according to the data collected, this is not supported.

The lack of correlation between the sentence completion test and the TAT may imply that the two tests, though both operant measures, are assessing different or additional variables. Certainly the distinct structure of the sentence stems as response stimuli, may have an impact on this difference. Viewing Tables 1 and 2 in light of Table 3, it would appear that the sentence completion test is actually measuring an intimacy-related variable, however, this variable (or set of variables) is probably different

from that assessed by the TAT measure. Further speculation on the significance of the structure of the sentence completion method vis a vis the findings in Tables 1 and 2 will be discussed below.

Table 1

Correlations<sup>a</sup> Among Variables Measured in Session 1

	1	2	3	4	5	6	7	8	9
1. TAT Intimacy Motivation		.27	-.29	-.05	-.07	-.23	-.45	-.37	-.02
2. Sentence Completion Intimacy Motivation			.35	-.04	.10	.21	-.19	-.09	-.18
3. ACL <sup>b</sup> Dominance				.56*	.65*	-.14	-.08	-.30	-.27
4. ACL Nurturance					.88**	.03	.04	.08	.03
5. ACL Affiliation						-.24	.06	.09	.05
6. PRF <sup>c</sup> Achievement							.56*	-.09	.44
7. PRF Dominance								.10	.28
8. PRF Affiliation									.66*
9. Liking People Scale									

<sup>a</sup>Correlations are Spearman Rank-order correlations with N = 15.

<sup>b</sup>Adjective Check List

<sup>c</sup>Personality Research Form

\*  $p < .05$

\*\*  $p < .01$

Table 2  
Correlations<sup>a</sup> Among Variables Measured in Session 2

	1	2	3	4	5	6	7	8	9
1. TAT Intimacy Motivation		.32	-.39	.63*	.38	.22	-.37	.01	-.12
2. Sentence Completion Intimacy Motivation			-.45	.05	-.05	.16	-.27	.09	-.18
3. ACL <sup>b</sup> Dominance				-.10	.27	-.09	.19	-.08	.00
4. ACL Nurturance					.86*	-.03	-.30	.29	-.07
5. ACL Affiliation						-.22	-.13	.22	-.11
6. PRF <sup>c</sup> Achievement							-.07	.37	.38
7. PRF Dominance								-.23	.05
8. PRF Affiliation									.63*
9. Liking People Scale									

<sup>a</sup>Correlations are Spearman Rank-order correlations with N = 15.

<sup>b</sup>Adjective Check List.

<sup>c</sup>Personality Research Form.

\*p .05

\*\*p .01

Table 3

Mean Scores on Variables Measured at Time 1 and Time 2<sup>a</sup>

	Time 1	Time 2	t (13)
1. TAT Intimacy Motivation	11.4	13.6	1.49 <sup>*d</sup>
2. Sentence Completion Intimacy Motivation	20.1	21.9	2.08 <sup>**d</sup>
3. ACL <sup>b</sup> Dominance	4.5	3.7	-.42
4. ACL Nurturance	13.4	11.2	1.12
5. ACL Affiliation	13.7	12.0	-.65
6. PRF <sup>c</sup> Achievement	10.4	9.2	-2.00*
7. PRF Dominance	5.5	5.9	.59
8. PRF Affiliation	9.9	11.0	1.70
9. Liking People Scale	60.6	62.8	1.72

<sup>a</sup>Time 1 = Session 1; Time 2 = Session 2.

<sup>b</sup>Adjective Check List.

<sup>c</sup>Personality Research Form.

<sup>d</sup>Since unidirectional hypotheses were tested one-tailed tests of significance were used in these analyses.

\*p .10.

\*\* p .05.

Table 4

Correlations<sup>a</sup> Between Final Evaluations and Measured Variables from Session 2

	Evaluations <sup>b</sup>
1. TAT Intimacy Motivation	.23
2. Sentence Completion Intimacy Motivation	.01
3. ACL Dominance	.02
4. ACL Nurturance	-.20
5. ACL Affiliation	-.12
6. PRF Achievement	.09
7. PRF Dominance	-.16
8. PRF Affiliation	-.09
9. Liking People Scale	.07

<sup>a</sup>Correlations are Spearman Rank-order Correlations with N = 15.

<sup>b</sup>Mean = 29.13; Median = 30; Mode = 32; SD = 5.38.

\*  
p .05

## DISCUSSION

The central proposition tested in this study states that intimacy motivation can be measured in an operant manner other than by the Thematic Apperception Test. This new operant, or projective, method, the sentence completion test, would require less an investment of time in administration and scoring than is presently possible with the TAT. Further, it is believed that the nature of the new measure may further our present understanding of the intimacy motive.

Planned comparisons between subjects on a number of variables at two distinct points in a semester course provided tentative support for this proposition. For example, it is estimated that the new sentence completion test takes less than half the time to administer and to score than does the older and better established TAT method. More findings of the present study are discussed below.

### The TAT and the Sentence Completion Test

Scanning the results, one can tentatively conclude that although the new sentence completion test is a sensitive measure of change over time (as judged by the within-groups  $t$  statistic and its corroboration with the TAT), it is not clear exactly what the sentence test is indeed measuring. Due to the lack of significant correlation with any other measure, either operant or respondent, in either



session 1 or 2, it is difficult to hypothesize what variables were being measured during the experiment. Intimacy-related variables, that is variables similar to those in the TAT scoring procedure, are probably being assessed. However, this is not clearly supported by the data.

Several possibilities exist to explain the apparent discrepancy between tables 1 & 2 and table 3. For example, the sentence completion test may be measuring variables other than those associated with intimacy motivation, thereby explaining the lack of correlation with the other accepted measure of intimacy, the TAT.

This possibility may be a plausible one due to the unique position the sentence completion test retains among projective measures. Recalling McClelland's (1982) distinction between operants and respondents, it is useful to remember the reason behind this distinction:

I prefer to refer to these thought samples as operant because in Skinner's sense it is not possible to identify the exact stimulus that elicits them. More generally speaking they are responses that the subject generates spontaneously. Neither the stimulus nor the response nor the instructional set is strictly controlled by the experimenter (p.3).

McClelland goes on to contrast an operant measure, like the TAT, with a respondent, self-evaluative questionnaire, reminding the reader that these are the two ends of a continuum and that there "are all sorts of gradations between these two extremes...(p. 3)."

In comparing the TAT with the sentence completion test, it is precisely the aspect of experimenter control which chiefly differentiates the two operant measures. The sentence completion test has, historically, remained controversial, owing to the fact that some theorists believe it too structured to be considered a truly projective instrument. Although the majority of authors have endorsed the sentence completion test as a projective measure, the fact that it does indeed offer greater experimenter control through the construction of the stems themselves is a salient difference when compared with the TAT. Although the selection of the cues in the TAT method (i.e., the TAT cards) is under experimenter control, it is readily apparent that the choice of particular sentence stems in the new method offers considerably more control to the experimenter and to the respondent. One need only to think of stems such as, "I feel guilty about...", "If I had sexual relations...", and "not even my best friend knows..." to realize the powerful influence an experimenter can have over the responses of subjects. The stimulus, from the point of view of structure, is more exact and communicates a particular subject area to the individual (e.g., "guilty", "sex", "secrets") with greater precision than does a picture or scene.

The stimulus dissimilarity between the two measures functions as both a strength and a weakness. Earlier it was discussed that the TAT's sensitivity to unconscious cues was

both its strength and its potential shortcoming. So much so with the sentence completion test. From the point of view of experimental flexibility and crestivity the sentence completion test is adaptive and readily adjusted to different populations and to many different experimental needs. This strength, however, may affect the test's own sensitivity as a measure of unconscious motives. If the enduring caveat of the TAT user is to guard against unwanted variables such as demand characteristics and experimenter bias, then an appropriate warning for the experimenter using the sentence completion test is to realize that the degree of projective material is inversely related to the explicitness of the stimuli. If, for example, the sentence is highly structured and pulls for a particular content area, then one is likely to respond not with one's motives (unconscious) but with one's schemas or values (conscious). The combination of such a literate task, preceded by phrases such as, "I think...", or, "I believe...", runs the risk of leaving the operant, unconscious realm of measurement.

McClelland's contribution, discussed earlier, was to go beyond the groundbreaking work of Murray and to move towards a systematic scheme of understanding the personality. Germane to this system was the differntiation of three variables in the explication of human behavior: motives, schemas, and traits. McClelland believes that operant measures assess motives and respondent measures assess schemas.

These two domains of personality, along with traits, are necessary for the prediction of behavior, however, they certainly do not need to agree or to coincide with one another. Further, the measures designed to assess each category of personality are different, with their own strengths and weaknesses, and it is in the wholistic and broad-band sense that both Murray and McClelland have stressed that we investigate behavior.

If the TAT can reflect unconscious variables not needed or wanted in a projective assessment, and the sentence completion test can record, perhaps, conscious schemas along with unconscious motives, then one can say that a lack of correlation between the two measures is, indeed, not at all surprising. They both register an effect over time, yet do not correlate with each other. Further experimentation with the sentence completion test would be useful in determining the similarity between the domains of the new method and that of the TAT. It is plausible to assert that the sentence completion test, while fundamentally operant in nature, leans to the side of a respondent-like measure in critical ways. This is based on historical argument and the unique literate construction of the stimuli.

Further research with the test should focus on such conceptual and practical areas as: variation in stem length to attenuate the structure of the task, research into the amount of "key" stimulus words used in the stem, passive v.

active voices in the stems, and scoring variations in clarifying the precise "pull" of the test on experimental subjects. The test needs to be used with different populations as well, in order to observe the performance of subjects who might perceive the task in different ways (e.g., as a general screening device, for psychodiagnostic purposes, as a simple, enjoyable exercise, in conjunction with psychotherapy, etc.). Only with additional data can the relationship of the sentence completion method to other operant and respondent measures be more fully understood.

### The Selected Treatment

The intervening treatment, a course designed to teach counseling skills to graduate students, was selected because it was believed that just such a treatment could impact on the three crucial variables of personality: motives, schemas, and traits. Treatments which address only conscious decision making and values, e.g., a straight lecture format, will not, necessarily, produce change at the unconscious level of motives. The reverse of this is also true. Treatments which are wholly experiential to the exclusion of any didactic material reflect an unlikely potential for changing beliefs and values. This particular treatment was selected because it addressed conscious values through didactic presentations as well as unconscious motives through experiential learning. The success of this treatment is questionable,

although the within groups  $t$  statistic supports the hypothesis that a change between sessions 1 and 2 did occur and may be attributed to the counseling course's influence at the both the conscious and unconscious level of experience.

Treatments which set out to alter one or all of McClelland's three constructs of personality should be carefully examined before selection. Duration, level of operation (conscious or unconscious), motive arousing or nonarousing, behavioral or didactic, etc.), are all factors which need to be selected before a treatment is implemented. It is an a priori assumption of this study that the effects of different treatments can be felt and measured at different levels, and that a basic sensitivity to the differing domains of thought is essential in interpreting results (e.g., treating respondent measures as operants, etc.). Additionally, studies need to be conducted regarding the durability of change as a function of level of personality. Is a change or influence of a motive inherently a longer lasting change than an iteration in a conscious scheme? The individual variables which affect the duration of any one particular treatment needs to be considered prior to the selection of an intervention.

### The Meaning of Intimacy Motivation

Intimacy motivation has been defined as "an individual's preference or readiness for experiences of closeness, warmth, and communication (McAdams, 1982a)." The data

presented in this study support this definition, in so far as the scoring manual of the sentence completion test was designed to highlight just such aspects of intimacy motivation as closeness and interpersonal connectedness. It is difficult, in light of the nonsignificant findings in tables 1 & 2, to go beyond what is already known about intimacy motivation with these results. The most significant aspect of this experiment was the use of the sentence completion test along with the established TAT measure of intimacy. It has already been discussed how the measure itself may have had an impact on the measurement of the motive. For example, the highly literate structure of the test may have served to attenuate its projective nature, or altered it somehow, favoring instead a series of items which pull for both motive (unconscious) and schema (conscious) material. Since the new measure does not significantly correlate with either the TAT or the respondents in either testing session, it is questionable just what variables are being measured in the sentence completion test. However, given the significant finding reported in table 3, further research needs to be accomplished in order to better understand the contribution of the sentence completion method to the projective assessment of motives. For example, this significance may represent that the sentence completion test is indeed measuring a construct which is an intimacy-related construct yet which is also uniquely defined, so as to merit its lack of correlation

with other established measures. Or, the new measure may indeed reflect a change as a result of the treatment, however, because of its specialized structure it incorporates variables heretofore unconsidered in motive assessment. Only further study on intimacy motivation with multiple measures, including the sentence completion test, can yield clearer results and illuminate the roles operant and respondent measures may take in the assessment of motivation. Further research also needs to be conducted to clarify the relationship between the sentence completion method and the TAT.

It must be remembered that the theoretical notions of personality always influence, often directly, the practical aspects of motive assessment. For a variety of reasons, both theoretical and practical, the present study has not settled issues such as the relationship of the sentence completion test to the TAT measure, or, of the distinction put forth by McClelland involving the similarities and differences of operant and respondent measures. Further research using considerably larger numbers of subjects will be the most effective path to follow in order to settle these issues. A start, however, toward this goal has been made through the newly developed sentence completion scoring system. Future experimentation will need to refine this system which has, however roughly, begun to take shape.



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## APPENDIX A

MALES

1. If I had more money
2. A man's job
3. The thing I like most about myself is
4. Women are lucky because
5. A good father
6. A man feels good when
7. A wife should
8. A man should always
9. Rules are
10. When his wife asked him to help with the housework
11. When I am criticized
12. He felt proud that he

13. Not even my best friend knows that I

14. I could be perfectly happy if

15. I believe most people

16. If I had sexual relations

17. I feel guilty about

18. My feeling about married life is

FEMALES

1. For a woman a career is
2. A girl has a right to
3. The thing I like about myself is
4. Education
5. A wife should
6. Rules are
7. When I get mad
8. Men are lucky because
9. I am
10. A woman feels good when
11. My husband and I will
12. A woman should always

## Sentence Completion Exercise for Females - 2

13. Not even my best friend knows that I

14. I could be perfectly happy if

15. I believe most people

16. If I had sexual relations

17. I feel guilty about

18. My feeling about married life is

III  
SENTENCE COMPLETION EXERCISE

1. If I had more money
2. The thing I like most about myself is
3. Education
4. A wife should
5. Rules are
6. A man should always
7. When I am criticized
8. A woman should always
9. I am
10. My husband/wife will
11. A husband should
12. A person feels good when

## Sentence Completion Exercise 2.

13. Not even my best friend knows that I

14. I could be perfectly happy if

15. I believe most people

16. If I had sexual relations

17. I feel guilty about

18. My feeling about married life is



APPENDIX B

## CONSENT FORM

Information which you provide constitutes confidential data. This data will be coded by number, not name, and a master sheet containing the name and number relationships will be destroyed at the end of the semester so as to assure complete anonymity. During the semester no one except myself will have access to the identities of the respondents.

If at any time you wish to withdraw from the study or if you wish not to answer a particular question, you are free to do so.

I would like to thank you for participating and apologize for the overly "formal" nature of this consent form. I think that you will enjoy the study.

---

Ted Bililies  
Graduate Student  
Clinical Psychology

September 21, 1982

I have read the above carefully and I fully understand the conditions set forth. I realize, also, that I may withdraw from the study at any time.

---

signature

APPENDIX C

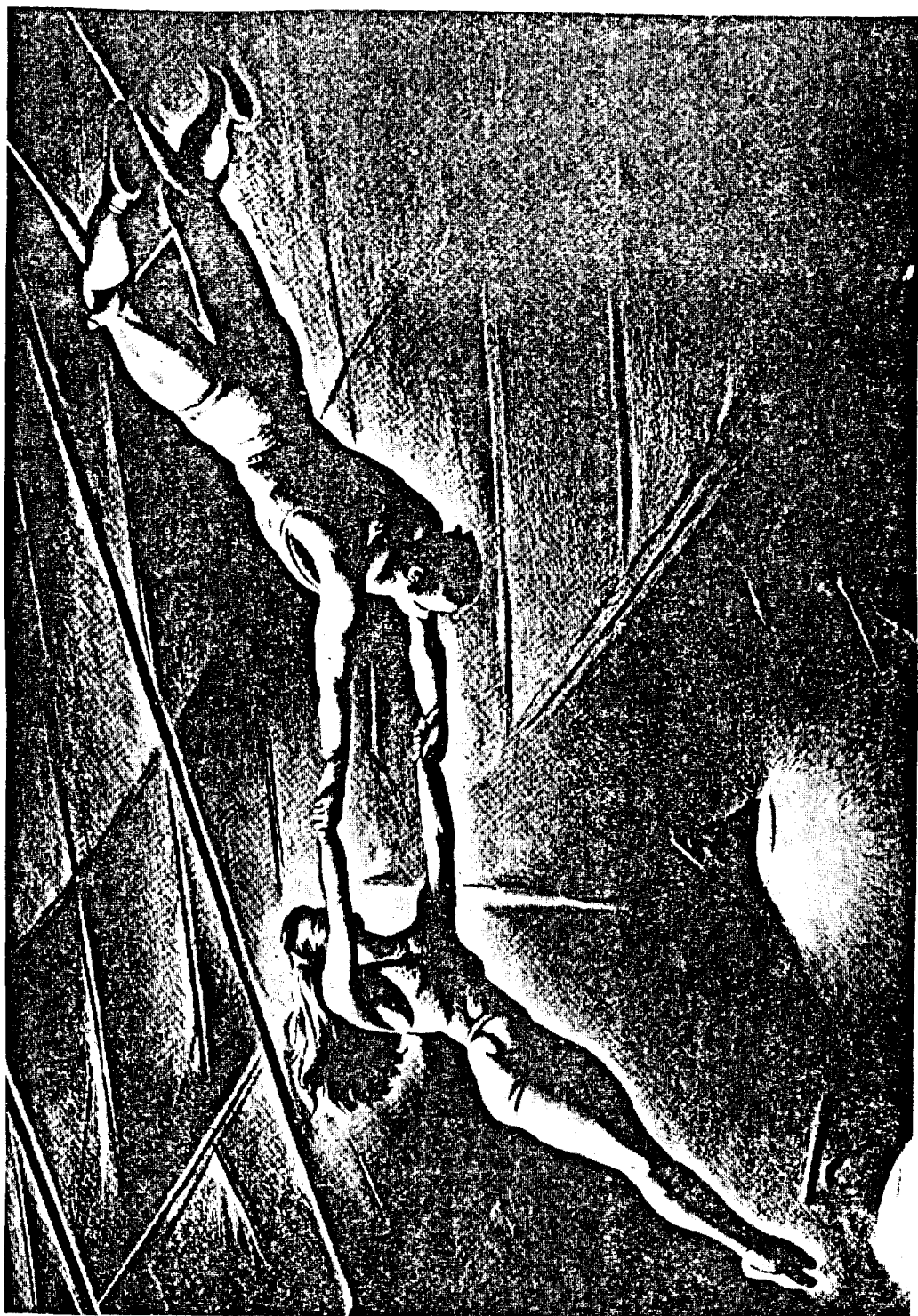


Just look at the picture briefly (10-15 seconds), turn the page and write out the story it suggests.



Just look at the picture briefly (10-15 seconds), turn the page and write out the story it suggests.







Just look at the picture briefly (10-15 seconds),  
turn the page and write out the story it suggests.



APPENDIX D





APPENDIX E

NAME: \_\_\_\_\_

You will find 20 groups of statements listed below. Each group is composed of three statements. Each statement refers to a way of thinking about people or things in general. They reflect opinions and not matters of fact -- there are no "right" or "wrong" answers.

Please read each of the three statements in each group. Then decide first which of the statements is most true or comes the closest to describing your own beliefs. Mark a plus (+) in the space on the answer sheet.

Then decide which of the remaining two statements is most false or is the farthest from your own beliefs. Place a zero (0) in the space on the answer sheet.

Here is an example:

- \_\_\_\_\_ A. It is easy to persuade people but hard to keep them persuaded.
- + \_\_\_\_\_ B. Theories that run counter to common sense are a waste of time.
- 0 \_\_\_\_\_ C. It is only common sense to go along with what other people are doing and not be too different.

In this case, statement B would be the one you believe in most strongly and A and C would be ones that are not as characteristic of your opinion. Statement C would be the one you believe in least strongly and is least characteristic of your beliefs.

You will find some of the choices easy to make; other will be quite difficult. Do not fail to make a choice no matter how hard it may be. You will mark two statements in each group of three -- the one that comes the closest to your own beliefs with a + and the one farthest from your beliefs with a 0. The remaining statements should be left unmarked.

Please do not omit any groups of statements.

1. \_\_\_\_\_ A. It takes more imagination to be a successful criminal than a successful business manager.
- \_\_\_\_\_ B. The phrase, "the road to hell is paved with good intentions" contains a lot of truth.
- \_\_\_\_\_ C. Most people forget more easily of the death of their parents than of the loss of their property.
2. \_\_\_\_\_ A. Men are more concerned with the car they drive than with the clothes their wives wear.

- \_\_\_ B. It is very important that imagination and creativity in children be cultivated.
- \_\_\_ C. People suffering from incurable diseases should have the choice of being put painlessly to death.
3. \_\_\_ A. Never tell anyone the real reason you did something unless it is useful to do so.
- \_\_\_ B. The well-being of the individual is the goal that should be worked for before anything else.
- \_\_\_ C. Once a truly intelligent person makes up his mind about the answer to a problem he rarely continues to think about it.
4. \_\_\_ A. People are getting so lazy and self-indulgent that it is bad for our country.
- \_\_\_ B. The best way to handle people is to tell them what they want to hear.
- \_\_\_ C. It would be a good thing if people were kinder to others less fortunate than themselves.
5. \_\_\_ A. Most people are basically good and kind.
- \_\_\_ B. The best criterion for a wife or husband is compatibility -- other characteristics are nice but not essential.
- \_\_\_ C. Only after a person has gotten what he wants from life should he concern himself with the injustices in the world.
6. \_\_\_ A. Most people who get ahead in the world lead clean, moral lives.
- \_\_\_ B. Any man worth his salt shouldn't be blamed for putting his career above his family.
- \_\_\_ C. People would be better off if they were concerned less with how to do things and more with what to do.
7. \_\_\_ A. A good teacher is one who points out unanswered questions rather than gives you explicit answers.
- \_\_\_ B. When you ask someone to do something for you, it is best to give the real reasons for wanting it rather than giving reasons which might carry more weight.
- \_\_\_ C. A person's job is the best single guide as to the sort of person he is.
8. \_\_\_ A. The construction of such monumental works as the Egyptian pyramids was worth the enslavement of the workers who built them.
- \_\_\_ B. Once a way of handling problems has been worked out, it is best to stick with it.
- \_\_\_ C. One should take action only when sure that it is morally right.
9. \_\_\_ A. The world would be a much better place to live in if people would let the future take care of itself and concern themselves only with enjoying the present.
- \_\_\_ B. It is wise to flatter important people.
- \_\_\_ C. Once a decision has been made, it is best to keep changing it as new circumstances arise.
10. \_\_\_ A. It is a good policy to act as if you are doing the things you do because you have no other choice.

- \_\_\_ B. The biggest difference between most criminals and other people is that criminals are stupid enough to get caught.
- \_\_\_ C. Even the most hardened and vicious criminal has a spark of decency somewhere in him.
11. \_\_\_ A. All in all, it is better to be humble and honest than to be important and dishonest.
- \_\_\_ B. A person who is able and willing to work hard has a good chance of succeeding in whatever he wants to do.
- \_\_\_ C. If a thing does not help us in our daily lives, it isn't very important.
12. \_\_\_ A. A person shouldn't be punished for breaking a law which he thinks is unreasonable.
- \_\_\_ B. Too many criminals are not punished for their crimes.
- \_\_\_ C. There is no excuse for lying to someone else.
13. \_\_\_ A. Generally speaking, people won't work hard unless they're forced to do so.
- \_\_\_ B. Every person is entitled to a second chance, even after he commits a serious mistake.
- \_\_\_ C. People who can't make up their minds aren't worth bothering about.
14. \_\_\_ A. A man's first responsibility is to his wife, not his mother.
- \_\_\_ B. Most people are brave.
- \_\_\_ C. It's best to pick friends who are intellectually stimulating rather than those it is comfortable to be around.
15. \_\_\_ A. There are very few people in the world worth concerning oneself about.
- \_\_\_ B. It is hard to get ahead without cutting corners here and there.
- \_\_\_ C. A capable person motivated for his own gain is more useful to society than a well-meaning but ineffective one.
16. \_\_\_ A. It is best to give others the impression that you can change your mind easily.
- \_\_\_ B. It is a good working policy to keep on good terms with everyone.
- \_\_\_ C. Honesty is the best policy in all cases.
17. \_\_\_ A. It is possible to be good in all respects.
- \_\_\_ B. To help oneself is good; to help others, even better.
- \_\_\_ C. War and threats of war are unchangeable facts of human life.
18. \_\_\_ A. Barnum was probably right when he said that there's at least one sucker born every minute.
- \_\_\_ B. Life is pretty dull unless one deliberately stirs up some excitement.
- \_\_\_ C. Most people would be better off if they controlled their emotions.
19. \_\_\_ A. Sensitivity to the feelings of others is worth more than poise in social situations.

- B. The ideal society is one where everybody knows his place and accepts it.
  - C. It is safest to assume that all people have a vicious streak and it will come out when they are given a chance.
20.  A. People who talk about abstract problems usually don't know what they are talking about.
- B. Anyone who completely trusts anyone else is asking for trouble.
  - C. It is essential for the functioning of a democracy that everyone vote.



APPENDIX F

NAME: \_\_\_\_\_

The following questions ask your feeling about a number of things. Since we are all different, some people may think and feel one way; other people think and feel another way. There is no such thing as a "right" or "wrong" answer. The idea is to read each question and then fill out your answer. Try to respond to every question, even if it does not apply to you very well. The possible answers for each question are:

- a. strongly agree
- b. moderately agree
- c. neutral
- d. moderately disagree
- e. strongly disagree

- \_\_\_ 1. Sometimes when people are talking to me, I find myself wishing that they would leave.
- \_\_\_ 2. My need for people is quite low.
- \_\_\_ 3. One of the things wrong with people today is that they are too dependant upon other people.
- \_\_\_ 4. My happiest experiences involve other people.
- \_\_\_ 5. People are not important for my personal happiness.
- \_\_\_ 6. Personal character is developed in the stream of life.
- \_\_\_ 7. It could be happy living away from people.
- \_\_\_ 8. It is important for me to be able to get along with other people.
- \_\_\_ 9. No matter what I am doing, I would rather do it in the company of other people.
- \_\_\_ 10. There is no question about it -- I like people.
- \_\_\_ 11. Personal character is developed in solitude.
- \_\_\_ 12. In general, I don't like people.
- \_\_\_ 13. Except for my close friends, I don't like people.
- \_\_\_ 14. A person only has a limited amount of time and people tend to cut into it.
- \_\_\_ 15. People are the most important in my life.

APPENDIX G

Student's Name: \_\_\_\_\_

Evaluator: \_\_\_\_\_

The following statements relate to the particular student noted above. Please respond to each statement as accurately as possible, in the context of your behavioral and impressionistic observations made during class.

1. This student is particularly at ease in large group experiences.

1	2	3	4	5
strongly agree		neutral		strongly disagree

2. I would rate this student's verbal participation in exercises as:

1	2	3	4	5
very vocal		neutral		very quiet

3. I have often observed this student physically close to a person or persons,

1	2	3	4	5
strongly agree		neutral		strongly disagree

4. This person expresses or demonstrates a high need to be with people.

1	2	3	4	5
strongly agree		neutral		strongly disagree

5. This student readily initiates conversations with all members of the class.

1	2	3	4	5
strongly agree		neutral		strongly disagree

6. This student expresses a desire to be close to others and to understand them.

1	2	3	4	5
strongly agree		neutral		strongly disagree

7. The student initiates conversations with only a few members of the class.

1	2	3	4	5
strongly agree		neutral		strongly disagree

8. This person readily discloses personal information.

1	2	3	4	5
strongly agree		neutral		strongly disagree

9. I believe this student's empathic ability to be:

1	2	3	4	5
outstanding	good	average	below average	very poor

Number of absences: \_\_\_\_\_

APPENDIX H

Subject	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. TAT Intimacy Mot.	6	11	17	10	16	10	14	4	7	14	16	12	9	6	19
2. Sentence Completion Int. Mot.	12	17	29	23	24	17	25	25	22	20	21	19	10	20	17
3. ACL <sup>a</sup> Dominance	4	7	9	0	12	6	-2	14	4	2	3	3	-3	8	0
4. ACL Nurturance	10	18	24	0	11	21	1	20	14	11	6	6	11	25	23
5. ACL Affiliation	8	24	34	3	14	18	4	20	19	7	5	3	9	19	19
6. PRF <sup>b</sup> Achievement	11	8	10	11	8	11	11	12	12	10	11	9	12	10	10
7. PRF Dominance	12	1	3	5	4	10	8	6	4	4	1	1	12	9	2
8. PRF Affiliation	12	12	13	2	7	11	14	11	4	15	8	7	13	6	13
9. Liking People Scale	62	62	61	54	51	65	68	68	53	62	62	60	64	53	64

	$\bar{X}$	Median	SD
1.	11.4	11.0	4.5
2.	20.1	20.0	5.0
3.	4.5	6.0	4.6
4.	13.4	14.0	8.2
5.	13.7	14.0	9.1
6.	10.4	11.0	1.3
7.	5.5	3.0	3.8
8.	9.9	11.0	3.9
9.	60.6	62.0	5.4

<sup>a</sup>Adjective Check List    <sup>b</sup>Personality Research Form

Raw Scores on Variables Measured in Session 1

Table 1

Subject	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. TAT Intimacy Mot.	8	22	15	12	7	11	9	14	18	11	21	13	11	11	21
2. Sentence Completion Int. Mot.	8	17	33	27	19	14	29	21	28	16	29	23	15	27	22
3. ACL <sup>a</sup> Dominance	4	-7	1	1	17	7	-1	12	2	10	3	1	12	-5	-1
4. ACL Nurturance	7	13	18	3	9	8	7	23	12	11	11	6	10	2	28
5. ACL Affiliation	7	19	12	5	19	6	10	26	11	10	12	5	17	0	21
6. PRF <sup>b</sup> Achievement	10	7	8	9	6	11	10	4	14	8	12	10	10	8	11
7. PRF Dominance	13	8	0	5	5	10	6	8	6	4	3	3	8	8	1
8. PRF Affiliation	14	10	15	2	7	11	16	10	9	11	13	12	14	6	15
9. Liking People Scale	67	61	59	53	52	65	69	59	55	72	69	64	67	64	66

	$\bar{X}$	Median	SD
1.	13.6	12.0	4.8
2.	21.9	22.0	7.0
3.	3.7	2.0	6.7
4.	11.2	10.0	7.1
5.	12.0	12.0	7.1
6.	9.2	10.0	2.5
7.	5.9	6.0	3.4
8.	11.0	11.0	3.8
9.	62.8	64.0	6.1

<sup>a</sup>Adjective Check List    <sup>b</sup>Personality Research Form

Raw Scores on Variables Measured in Session 2

Table 2



APPROVAL SHEET

The thesis submitted by Theodore Constantine Bililies has been read and approved by the following committee:

Dr. Dan P. McAdams  
Assistant Professor, Psychology, Loyola

Dr. Alan S. DeWolfe  
Professor, Psychology, Loyola

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts in Clinical Psychology.

4/16/54  
Date/

Don P. McAdams  
Dr. Dan P. McAdams