AN EVALUATION OF THE THEMATIC APPERCEPTION TEST
FOR THE STUDY OF CERTAIN PERSONALITY FACTORS
BY COMPARISON WITH AUTOBIOGRAPHY

Dissertation
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By

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Chapter I

Introduction

Recent years have seen a rapidly expanding interest in projective devices of all kinds as an approach to personality study. Primarily, this interest has been stimulated from two sources: clinical and theoretical.

In the clinic, traditional methods of personality study, such as personality inventories, rating scales and the like, were at first greeted with considerable enthusiasm. Unfortunately, these devices have proved themselves much too limited in scope and often of highly questionable validity for clinical use. As frequently happens, devices useful in group analysis break down when applied to individual cases. Realizing these limitations, clinicians have welcomed the newer projective techniques hoping to find more valid and comprehensive tools for clinical practice. In considerable measure these hopes have been sustained.

Projective devices have proven extremely useful in aiding the clinician to better understanding of his client. As frequently happens, however, when a practical device precedes theoretical bases, much confusion reigns as to the how and why of its use. While this confusion is disturbing and sometimes even embarrassing, the clinician nevertheless uses what tools are available, relying upon judgment growing out of experience for validation and looking forward to the time when objective evidence may substantiate that judgment.

Projective techniques have also given impetus to clinical work by their usefulness in therapy. Here again, fundamental understanding of the exact nature and dynamics which make such techniques useful is often obscure. Nevertheless, experience has shown that the use of
some of these devices bring about "adjustments" much more rapidly and effectively than has previously been the case. This is particularly true in the use of projective devices in play therapy with children.

An additional factor of clinical interest lies in the nature of interpretations made possible by projective devices. Traditional techniques have been severely criticized among other things for the extremely atomistic nature of materials obtained. It has been felt by some psychologists that questionnaires, rating scales and similar devices are not satisfactory in clinical operation because they represent too restricted an approach and tend to emphasize certain factors to the exclusion of others. Projective devices, on the other hand, are designed to reveal more general aspects of personality. Rather than emphasizing certain specific factors they are intended to clarify the interrelationship of factors as they exist in a particular personality.

It is in connection with this latter point that greatest interest has arisen in theoretical psychology. With the development of concern in some quarters with the "totality" as opposed to "specificity" of personality structure projective devices have shown promise of making possible objective approaches to the study of problems in personality dynamics for which previous instruments have been unsatisfactory.

Projective devices now in use vary widely from extremely controlled and structured situations on the one hand to completely free and unstructured situations on the other. To date, most interest has centered upon development of techniques rather than upon the determination of validity and reliability. Among the projective techniques which now seem to offer most promise are the Rorschach Ink Blots and the Thematic Apperception Test on T.A.T. While the Rorschach has been subjected to
considerable study, it is only recently that the T. A. T. has come into much prominence for the investigation of personality.

The T. A. T., originated by Morgan and Murray, is an attempt to bring to light the content or dynamics of the personality; the desires, trends, feelings, conflicts, etc., which motivate the individual. The authors of the test have experimented fairly widely with its use, have devised scoring methods and have published the test through the Harvard Press. The literature pertaining to the T. A. T. is rapidly expanding but a great many problems have yet to be solved.

It is the purpose of this paper to explore some of these questions relative to the Thematic Apperception Test by a comparison of the test with autobiographical material. It is further hoped that some contribution may be made to its usefulness through the method of analysis proposed in this paper.
CHAPTER II

THE THEMATIC APPERCEPTION TEST

ORIGIN AND DEVELOPMENT

Perhaps the best statement of the underlying theory of projective techniques to date is that of L. K. Frank (35). He has described the emergence of personality as a dual process of socialization and individuation involving progressive establishment of a private world of meanings and feelings more real and compelling than the cultural and physical. Believing it is these "private worlds of meaning and feeling" which are the motivations of behavior, it is Frank's feeling that in the investigation of them we are likely to come to grips with the real nature of personality. He points out that the "individual personality imposes upon the world of events his meanings and significances, organization and patterns and responds to the meanings with which he invests them." Since the "projective method is the presentation of a stimulus situation designed or chosen to reveal whatever it means to his personality," it appears possible, that by the use of such devices we may approach the inner meanings of behavior as the individual projects them upon the plastic field we have provided for him. Further, since the only thing which an individual can project is what he has experienced, it seems likely that the projection will be revealing of the organization and integration of the personality under study.

In an analysis of projection, Cattell ( ) lists three major forms of projection:

1. Projection through naive inference from limited experience.
The individual deduces that the behavior of the character he is watching springs from a certain motive which he himself would have if he were presented the same situation.

2. Unconscious, immediate or true projection. Projection as a defense mechanism where the individual regards his own drive as coming from the external world.

3. Projection of press required by emotional state. The distortion of perception to make the real world fit in better with the prevailing emotion of the subject.

As Symonds (105) has indicated, projective techniques are "an invitation to express in overt terms of movement, feeling or fantasy, the inner dynamics of personality."

Based upon these fundamental assumptions, a wide variety of devices have been used more or less successfully to explore personality. Perhaps the most widespread, as well as the most controversial, of these is the Rorschach Ink Blots. Among others, might be mentioned the use of autobiography, story writing, dramatics, puppet shows, clay modeling, finger painting, drawing, life situation in toys, etc. (See bibliography references).

Perhaps the first to use projective devices specifically for diagnosis or for research into the fantasies of subjects is Rosenzweig's (82) use of play techniques for this purpose with schizophrenics. In this study Rosenzweig observed patients as they played with various toys he provided and later questioned them on the particular structures produced by the patients. Comparisons with the construction of normal subjects showed distinct differences particularly in degree of organization of structures. The structures of patients further revealed additional in-
sights important in the diagnosis of the patient's disorder. In another article Rosensweig (31) has pointed out what he considers the four major characteristics of fantasy as:

1. Its infantile nature
2. Its possible unconscious character
3. Its irrationality and illogicality
4. Its affinity for concrete pictures

This last point, an affinity for concreteness, he claims is the feature which makes scientific study possible. The determined character of the fantasy and its origins in the experience of the individual make possible its study by free associative devices such as psychoanalysis, Rorschach Ink Blots, Word Association, Play Techniques, The Thematic Apperception Test and Tautophone he mentions as among the most refined approaches to date.

Murray (74), in an article surveying the various techniques for a systematic investigation of fantasy, has listed the following reasons for the importance of such an investigation:

1. per se
2. because of the relation of fantasy to overt activity
3. because of the relation of fantasy to feeling
4. because of the relation of fantasy to creative thought
5. because of the relation of fantasy to neurotic symptoms
6. as clues to events which have critically conditioned a personality since it is felt that critical happenings influence fantasy even more than they do overt behavior

Fantasy has been subjected to considerable investigation at the Harvard Laboratory. Under Murray's direction there, the following methods for the exploration of fantasy have been developed:

1. questioning of client's fantasies and dreams
2. questioning of client's favorite themes
3. word association tests
4. free association
5. induced visions
6. similes test
7. musical reverie test
8. word projection test
9. images
10. picture completion
11. odor imagination tests
12. story elaboration
13. literary composition
14. thematic apperception test
15. dramatic productions test

Using these devices the Harvard investigations (75) have been more or less successful in getting at fantasies of the individual and through these have made provocative advances in the study of the dynamics of personality. They have attempted validation of their results primarily by "multiplicity of judgments" (case conference technique). Other attempts at validation have been made as follows:

a. correlation of one test with another
b. correlation of test with biographical data
c. matching of different tests
d. matching tests with biography
e. from tests guessing occurrence of childhood experiences
f. from tests making predictions of future behavior
g. comparing results with consultation with individual writing the fantasy
The importance of fantasy as an index to personality and the assumption that personality may be projected into certain formal situations is of course the fundamental basis for all of the work on the Rorschach Ink Blots.

Frank (38) has classified responses to projective techniques in four categories as follows:

a. Constitutive: The subject imposes a structure upon a plastic unstructured substance such as clay, or upon loosely structured fields like the Rorschach ink blots.

b. Interpretive: The subject tells what the stimulus situation means to him, e.g. a picture.

c. Cathartic: The subject discharges feeling upon the situation as in free play where the subject may give vent to pent up feeling.

d. Constructive: The subject builds with given materials and in construction reveals some of his own organizing conceptions.

Rapaport (78) has pointed out certain advantages of projective techniques over the subjectivity of clinical observation. Among these are:

a. Ease of objective observation

b. Easy and objective registration

c. Systematization of scoring permits more direct comparison

d. The significance of the test and test—and the meaning of reactions is unknown to the subject.

One of the larger unsolved problems in projection by the use of fantasy is the question of the degree of form and meaning which projection materials should include. For example, Stern (100) in 1937 criticized the Rorschach Ink Blots for the symmetry of its configurations and the sharpness of outlines. It was his feeling that best projection was obtained in as nearly formless a situation as it was possible to devise. With this in mind, Stern composed a series of cloud pictures for use much like the Rorschach material. While these pictures have met with some
success in the investigation of fantasy, they have not had nearly as wide application as the Rorschach. The extreme lack of structure in these cloud pictures seems to make projection more difficult for the subject in that no aspect is sufficiently defined to serve as a foundation for any fantasy structure. It seems likely that best results are to be obtained where sufficient minimal cues are present to serve as a stimulus for association.

Probably the earliest use of pictures for the investigation of personality dates back to the "Response to Pictures" items of the Binet Scale. Other tests in these scales have also been used as projective devices more recently by Buhler (23).

It appears likely that the first conscious attempt to use pictures as a purely projective technique in the investigation of personality is that of Schwartz (93). In a paper presented before the American Orthopsychiatric Association in 1931, he described the use of "social-situation pictures" with forty delinquent boys. These pictures depicted boys in typical delinquent activities. The subject was asked specific questions about each picture. Schwartz reported the responses of his subjects as unusually revealing of the dynamic pattern of the delinquent behavior. In scoring an attempt was made to classify results as to the usual or unusual character of the responses.

**The Thematic Apperception Test**

In 1935 Morgan and Murray (69), desiring "a more expeditious method to arrive at need analysis for psychoanalytic purposes" devised the Thematic Apperception Test "based on 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 of the scrutiny of others and, therefore, defensively less vigilant. To one with double hearing, however, he is disclosing certain inner tendencies and cathexes, wishes, fears and traces of past experience." Murray (74).

In another statement Murray has described his test as follows: "The Thematic Apperception Test calls for stories suggested by a series of dramatic pictures. To do this the subject cannot avoid drawing on his past experiences, his fantasies, his anticipations of the future, or, at the least his memories of books and plays that especially appealed to him. Under the stress of the test what comes most readily to mind are his own feelings, emotions and attitudes when confronted by this or that situation and so, though attending to the material, the subject talks mostly about himself. Thus, unless the subject is inhibited by the experimenter's attitude he is certain to expose more than he would ordinarily confess, and what is more, more than he knows—because he is unconscious of it."

The test originally consisted of a series of twenty pictures selected from "several hundred" by a process of elimination. These were presented to the subject who was asked to guess what the pictures were about. The examiner sat behind the subject and kept careful record of everything the subject said. The test showed much promise and since 1935 the test has undergone several revisions and finally has been published in 1943 by Harvard Press (71).

**Purpose**

The purpose of the test as set forth in the Manual is as follows:

"The Thematic Apperception Test familiarly known as the T.A.T., is a method of revealing to the trained interpreter some of the dominant drives, emotions, sentiments, complexes and conflicts of a personality."
Special value resides in its power to expose the underlying inhibited tendencies which the subject, or patient, is not willing to admit or cannot admit because he is unconscious of them."

**Materials**

The test materials consist of one blank card and a series of 29 pictures each printed on white cardboard. Only twenty pictures are used in any testing. Therefore, the examiner uses pictures which have been found most productive for his subject, depending upon the age and sex of the subject. It has been found that best results occur when there is someone represented in each picture with whom the subject may "identify" himself. The pictures are printed in black and white and have been drawn from many sources, some being reproductions of paintings, some photographs, wood-cuts or original drawings specifically made for this test.

**Administration**

The test is ordinarily given in as pleasant surroundings as possible and with the greatest possible encouragement to the client. In taking the test, the authors recommend that the client be comfortably seated or reclining and with his back to the examiner.

Two sets of instructions have been devised by the authors: Form A for adolescents and adults "of average intelligence and sophistication" and Form B for children and adults "of little education or intelligence." The Form A instructions slowly read to the client are as follows:

"This is a test of imagination, one form of intelligence. I am going to show you some pictures, one at a time; and your task will be to make up as dramatic a story as you can for each. Tell what has
led up to the event shown in the picture, describe what is happening at the moment, what the characters are feeling and thinking; and then give the outcome. Speak your thoughts as they come to your mind. Do you understand? Since you have fifty minutes for ten pictures, you can devote about five minutes to each story. Here is the first picture."

At the end of the first story, the client is encouraged and commended for his efforts. Omissions may be pointed out, for example -- if the client had neglected to include what led up to the picture, the examiner might remind him of this. Each story is carefully and completely transcribed as it is developed by the client.

In the early form of the test the subject was asked to explain the picture. In the present edition, however, it has been found more profitable to ask for "as dramatic a story as possible." It appears possible that this latter course may result in increasing the movie and fiction content of the stories at the expense of personal experience. This impression has resulted from our use of the test and appears a fruitful subject for further investigation. It would be interesting to determine, for example, the changes that might be effected in the story content by instructing the subject specifically not to write direct imitation of stories he has read or movies he has seen.

Clark (29) has attempted to use T.A.T. materials as a group test and to evaluate the responses of his subjects under these conditions. In his experiment the pictures were flashed on a four by five foot screen for 30 seconds in a darkened room and then lights were turned on for 3 minutes while his subjects wrote their reactions. For the method of analysis he used (reported below) he found that:
1. There was a substantial relationship between his group projection method and the traditional clinical administration in four of his five analysis categories.

2. That the group method was not identical with the clinical method but that there was enough relationship so that further research and refinement might be expected to make these instruments satisfactory comparable.

3. The practical advantages of group administration are very great and the saving of time alone is a very large consideration. It could be very effectively utilised as a screening device and he feels deserves further investigation and elaboration.

4. The group use did not indicate "needs" as well as did the clinical version but was an effectual substitute for the clinical test with respect to ending analysis and analysis of the adequacy of the leading character.

Method of Analysis

Completed protocols in the original test are analyzed for a wide variety of factors and scoring is by no means standardized as yet. Murray and his coworkers suggest, however, a method of analysis based upon Murray's own theories of personality structure but at the same time point out that the method of analysis used will depend upon what the examiner desires to know of his client.

Murray ordinarily employs a list of 25 "needs" or drives by which the fundamental motives of the hero of the story may be described and rated for intensity on a five point scale. Murray has defined a "need" as "a hypothetical process the occurrence of which is imagined in order to account for certain objective and subjective facts. ----- It is an organic
potentiality or readiness to respond in a certain way when certain conditions occur."

In addition to these forces inferred as acting within the individual, Murray classifies the forces of the environment acting upon the individual and calls these "press". A similar list of these "press" has been devised. As in "need" analysis, in "press" analysis the strength of environmental force is estimated on a five point scale.

A single "need-press" situation is known as a theme according to this method of analysis. The authors have indicated the following as the most likely sources of themes to be observed in the T.A.T. stories:

"1. Books and movies
2. Actual events of friends or of family members
3. Experiences in the subject's own life
4. The subject's conscious and unconscious fantasies."

While numbers 3 and 4 above are ordinarily the most desirable and important the authors feel that numbers 1 and 2 are also important since what is remembered is likely to be those things most similar to the subject's own fantasies or at least most congruent with his needs. Other factors for analysis have been employed by Murray as follows: Analysis with respect to:

1. Determination of the principal character
2. Determination of the main "themes" in each story
3. Recurrent or dominant "themes"
4. Adequacy of principal characters
5. Conditions under which good and bad endings occur
6. Conditions under which specific needs are allowed gratification
7. Attitudes toward parents and sibling figures
8. Figures introduced by the story titles
9. Objects introduced by the story titles

10. Signs of inhibition

Other investigators using the test have devised scoring methods of their own. Hartman (49) at C.C.N.Y. working with this test has compiled a considerable list of possible factors for analysis in addition to those indicated by Murray. He suggests analyses for:

1. Selected needs and expressions of the individual, i.e.: anti social tendencies, sympathy, anxiety, aggression, guilt feelings, general emotionality.

2. Main theme

3. Principal character

4. Adequacy of character

5. Attitudes

6. Figures introduced

7. Objects introduced

8. Signs of inhibition

9. Projection

10. Identification

11. Condition of need gratification

12. Need fusion

13. Need subsidiation

14. Logicality of outcome

15. Character of outcome

16. Switching of themes

17. Emotional tone in which story is told

18. Repetition of catch phrased

19. Repetition of same story

20. Displacement of affect

21. Relation of story to childhood events
22. Variability in length of story
23. Distortion of picture itself
24. Presence of indecision
25. Frequency of pro and con statements
26. Evidences of expressions of conative alternatives, equivalents or vacillations
27. Expressions of external force either felt or projected

Sanford (84) has used Murray's "need-press" analysis with a simple frequency count in place of the five-point intensity scale used by Murray.

In place of the very extended list of factors suggested by the designer of the T.A.T., Clark (29), in his attempt to apply the T.A.T. to a group situation, used a much abbreviated list of "needs." His list of five included needs for "affection, achievement, belongingness, recognitions and sensory gratification." In addition to these needs he made analyses for the effect of the environment on the organism, the reaction of the organism to the environment, the adequacy of the principal character and the endings of the stories.

Rotter (83) attempted analysis of both structure and content of stories. With respect to structure he was interested in:

1. Dominant emotional tone: happy, humorous, unhappy, neutral
2. Nature of ending: realistic - unrealistic
3. Logicality and coherence: contradictions, sex changes, loose thinking, deifying characters

and in content:

1. Unusualness
2. Frequency

Harrison (46) working with the T.A.T. employed still another method. Since he was interested primarily in diagnosis, he attempted to write a diagnosis from T.A.T. stories which was then checked item by item against
the case histories of his patients. Masserman (61) and Balken (10) have also analyzed stories in this way.

With such subjective material as represented by the T.A.T. stories, it must necessarily be difficult to devise any one scoring device. It is particularly difficult to avoid destroying in the process of scoring what seems the most valuable feature of the test; namely, its broad interrelated character. Undoubtedly there is a large field here for research in the development of scoring devices, lying somewhere between the too atomistic approaches of Murray and Sanford and the too subjective approaches of Harrison, Masserman and Balken.

Validity and Reliability

In our present state of knowledge, an attempt to determine the validity of a test of this kind must be a most hazardous and frequently unsatisfactory venture. With present tools, it seems likely one would never be able to deal adequately the rather nebulous "munches" or feelings of the clinician on the one hand or to satisfy completely the statistician on the other. We simply lack adequate means of measurement to include both extremes at this time.

Morgan and Murray (69) in presenting the test for the first time, discussed the case of one patient for whom the T.A.T. "adumbrated all the chief trends which five months of analysis were able to reveal." Murray has further reported on the validity of T.A.T. in the Harvard Laboratory's Explorations in Personality (75). In those studies considerable agreement was obtained between data found in T.A.T., extensive case studies, and other projective devices. It is pointed out that material in T.A.T. stories was often directly comparable to situations within the life of the subjects. Murray states, "No subject failed to exemplify it." Much case history material is illustrated in their report showing the similarity
of stories to actual events in the lives of subjects, but the authors have unfortunately neglected to present objective evidence or statistical validation. They were primarily concerned with diagnosis and although many tests were used, no attempt was made to relate them in mathematical terms. A number of judges cooperated in case conferences utilizing the data from all sources. They report the Thematic Apperception Test "as the one that could most certainly be relied upon to supply the necessary clues for the divination of the unity theme." In the "case of Earnest" reported in this same series of studies they have demonstrated that diagnosis from the T.A.T. showed a high degree of validity.

Morgan and Murray (69) have reported that in early experiments six of eleven college men claimed a young man in one picture to be a student while of twelve non-college men acting as subjects, none claimed the young man as a student. This is felt to be evidence of the projective nature of the device and the tendency of the individual to interpret in terms of his own experience.

Harrison (46) used 40 patients in a mental hospital and from T.A.T. analyses wrote out "any information which could be inferred from the T.A.T. stories." This information was then checked item by item against the hospital case histories by a collaborator with an accuracy of 83%. Harrison states "biographical and personality information, including interests, attitudes, traits, problems and conflicts were analytically deducible from the stories of psychiatric patients with a high degree of validity." In another study with fifteen patients, Harrison found 73.3% accuracy in guessing the clinical diagnosis from T.A.T. stories using the method of "blind analysis" (not seeing the patient). With a group of 40 patients both seen and tested diagnosis was correctly guessed from T.A.T. in 76.3% of the cases. In his most recent study, (44) Harrison has
illustrated high agreement in three cases examined by T.A.T. and the
Rorschach Ink Blots.

Reppaport (76) has stated in a discussion of the T.A.T. that in his
experience the validity of interpretation from these stories rests upon
the degree of observance of the test instructions, on the identical
strivings attributed to the phantasy figures described and on the obvious
misinterpretation of the test pictures.

Masserman and Balken (63), comparing T.A.T. with psychoanalytic in-
terpretations of 50 mental patients found that fantasies of patients were
consistent with psychoanalytic interpretations and were in accord with
or supplemented the clinical evaluation of the subject. These authors in
another study have found significant differences in the language forms of
T.A.T. stories, in words, sentence structure, etc. differing with the
diagnosis of the patient.

An interesting attempt to predict verbal attitude scores from pro-
jective materials was made by Dubin (34) who did not use T.A.T. stories
but asked his subjects to construct a dramatic situation and tell a story
about it using various toys. From these constructions and stories judges
attempted to predict attitude scale ratings of these individuals. The
author concludes his results "show fairly consistent and promising re-
sults" as indicated by fairly high correlations. While this study does
not bear directly on the T.A.T., the similarity of technique is
sufficiently great to be suggestive.

With the exception of the work at the Harvard Laboratory all of the
work thus far published with respect to T.A.T. validity has been carried
out with psychotics. Of these only Harrison (46) has presented us with
any statistical analysis.

Tompkins (112) has presented an interesting study of one subject who
was given the complete T.A.T. every 3 months for 10 months and in addition was given one picture per day, five days per week, for the same period. It was found that the first thirty stories contained the main themes. In later stories, even despite efforts to change, the main themes were repeated. Only a few extra themes appeared in later administrations. Furthermore, it is reported that themes appeared and were repeated quite independently of conscious moods. While this represents the results of but a single case, nevertheless, it appears as an interesting indication of some degree of reliability in test results.

Other Studies with T.A.T.

In addition to those indicated above with respect to validity, T.A.T. has been used in other experimental work. Bellak (14) found significant though small increases in aggression when seven men were sharply criticized during the taking of the T.A.T. He has concluded from this that "the hypothesis of projection is correct."

In the Dartmouth Eye Institute Study (17), Bender reports the use of T.A.T. in building psycho-portraits of the clients. In these portraits an attempt was made to evaluate the dynamics or organization of the individual. From the protocols of the T.A.T. and other devices it was found such psycho-portraits could effectively be built.

Reaport (76) has discussed the clinical usefulness of the T.A.T. at the Menniger Clinic, pointing out that T.A.T. aids in revealing the psychodynamics of attitudes, strivings and ways in which the individual sees his world.

In a study of dreams and T.A.T. stories, Sarason (57) applied the same methods of analysis to the dreams of his mental defective subjects as to the T.A.T. stories he got from these people. Studying this data case by case, Sarason concludes that not in every case were all the major
themes from the T.A.T. found in dreams, but in no case were data from any one subject at complete variance. In two other studies (58, 59) with mental defectives Sarason found the five major themes of his institution children to be: aggression, desire for affection, rebellion against parents, guilt and loneliness. He has presented several cases illustrating how data from T.A.T.'s are useful in understanding institutionalized defective children. He reports an interesting sex difference in that his male subjects gave T.A.T. responses which could not be as directly or obviously interpreted as the responses of his female subjects.

Sanford (64) in a study of personality patterns in school children, used the T.A.T. as a technique "lying between the case history on one hand and the extremely narrow questionnaire on the other".

He used the Murray "need-press" analysis technique but in place of ratings of each "need" and "press" as Murray has suggested, preferred to use simply a frequency count of the number of times each appeared. With forty-eight children used as subjects an attempt was made to establish most common syndromes by means of intercorrelations of the "need-press" patterns found on analysis. Twenty such syndromes were constructed and a more expansive clinical interpretation of each was attempted. Sanford feels that the use of these syndromes throws much light upon questions of the nature and dynamics of personality.

Christenson, (23) working with the T.A.T. has made certain changes in the administration of the test which he feels improve the instrument particularly for use in out patient clinics etc. when speed is essential. He uses all thirty pictures instead of the twenty particularly appropriate to the sex of his patient. For each picture he observes the effect of the card on the patient and asks for a simple judgment of liking or dislike for the card. He further asks what the picture is about and what the
patient feels is most important in it. He goes through the series twice checking consistency. He reports this technique as being highly useful and time-saving in getting at important aspects which aid in diagnosis.

Kotaah (56) administered the T.A.T. to sixty defective delinquents diagnosed as psychopathic personalities. For this purpose he utilized the ten "male" pictures of the T.A.T. and five of the "discretionary" series. He analyzed stories for evidence of intropsychic conflict, motivation for the responses, goals or drives represented by responses and possible complexes or traumas to which the responses gave clues. These were examined and interpreted for the set as a whole and then individually picture by picture. He concludes from these results alone that the psychopathic defective can be adequately studied by the use of the T.A.T. to reveal facets of his personality not reached by other non projective techniques and that each picture is heavily loaded with a particular type of fantasy and differs qualitatively from the others as a stimulus for projection. These are interesting results but until it can be demonstrated that the interpretations derived are essentially accurate, it would seem his conclusions must remain doubtful.

Other Related Tests

Since the development of the T.A.T., several authors have given attention to the development of other types of picture tests. Horowitz and Murphy (50) in a discussion of projective methods for use with children report some attempts to use pictures as projective devices. They have experimented to some extent with paired pictures. For example: "a picture of a 'nice' mother and a 'mean' mother may be presented and the child asked, 'Which is your Mommy?' While no statistics are given us as to the results of these interesting tests, the authors indicate the "feeling that pictures of this type have real possibilities for bringing to light the
emerging conceptions of the world at an age when verbalization is not yet satisfactory."

Amen (7) made an attempt to find pictures for use with children. Out of a considerable number of original pictures, fifteen were finally chosen. A unique feature of these pictures is the movable parts which some contain, much on the nature of the Healy Pictorial Completion Tests. Using these pictures it was found necessary to question the subject while he was looking at the picture. Three categories of response were elicited. 1. naming 2. description 3. indication of various psychological states within the individual. The author points out a trend from concrete and unrelated responses to recognition of the whole with increasing age. On the whole, movable pictures were found to be highly successful and the authors feel that self-identification with the primary character of the pictures was very clear.

Another attempt to collect a series of pictures for use with children has been made by Symonds (105). Working primarily with adolescents 12 to 19, Symonds attempted to find criteria for the selection of pictures which might be useful in investigating adolescent fantasy. 1168 stories were written in response to 81 pictures and were submitted to a group of judges for estimation of effectiveness. Intercorrelation of the various pictures showed best results to accrue to pictures lacking in detail and with those pictures having greatest appeal to adolescents because of age and culture of the primary character. The correlation between emotional expression and vagueness of the picture was .696. Symonds concludes among other things that best results are obtained in vague pictures containing characters with which the subject may identify himself.

In Holland, Rambouts (80) has devised a set of unclear, hazy shadow pictures of humans and animals and an accompanying set of questions which
he claims gives a satisfactory preliminary understanding of a personality in half an hour, thus saving time in psychiatric interviews.

Another closely related use of pictures for projection is the attempt of Haggard (42) to utilize comic strip characters. In a twenty minute interview the child was

a. Asked to list his favorite comic strip character
b. Describe what has been happening in these strips
c. Act as "author" and create his own narrative

Comparison of interpretations with clinical records are reported as showing a very high degree of consistency and the authors suggest a number of further types of study that might prove significant in this field.

Summary

It is apparent that a very considerable body of literature with respect to the T.A.T. is rapidly accumulating. Since its original publication it has captured the interest and fancy of a considerable number of workers who have utilized the test for a wide variety of purposes.

Nevertheless, the T.A.T. appears far from any consistent agreement in any phase of its use or theoretical meaning. Much has been assumed with respect to the test but very little proved. No doubt this is in large measure due to the nature of the materials derived from its administration and the lack of adequate means of dealing with these materials in sufficiently objective and concrete terms.

It is evident that much of the popularity of the T.A.T. at the moment stems from clinical sources. Much satisfaction has been expressed with the device for getting at certain factors in which the clinician is vitally interested. Whether it does or does not actually tap these phases, still remains in the area of "hunch". Unfortunately, "hunches" are extremely difficult to attack as the clinician himself is often unable to
state either the nature of his "munches" or on what they are based. It is probable that this is due to his response to certain minimal cues of which he may be entirely unaware. Some of these responses may be quite valid, others may be invalid but, since they cannot be satisfactorily expressed with present techniques, cannot be adequately evaluated.

The T.A.T. appears to be a device of this kind in the applied field which precedes theoretical validation. It is generally agreed among workers in the applied area that "it has something" but as yet we have been unable to get at this "something" or even, in some cases, to agree on what the "something" is. That it taps areas of personality hitherto difficult to reach is generally agreed but how to prove this or how to utilize the test to investigate these functions is still an open question.

This need not be greatly disturbing however as psychology has wrestled with that problem before in such things as intelligence testing for example, where even after a great deal of refinement of intelligence tests we are in disagreement as to the fundamental qualities represented by "intelligence". In the same sense, the T.A.T. appears to represent a useful device in need of considerable refinement and much study and experiment in many directions. Eventually, we may hope to arrive at an instrument of considerable acuity although we begin with crude and unorthodox techniques.
CHAPTER III

THE USE OF AUTOBIOGRAPHY

While autobiography has been of historical and literary interest for several hundred years, its use as a research tool has only recently been recognized. For many, it is still regarded only with the greatest misgivings for research purposes.

Even as a literary form autobiography developed slowly and has reached its greatest popularity in comparatively recent times. According to Allport, (6), the first famous autobiography was that of St. Augustine, followed later by Cellini during the Renaissance and later by Casanova, Rousseau, and Benjamin Franklin. The pioneer study of the autobiographical form in this country was that of Burr (25) published in 1909 and still very widely quoted.

Sociology has made widest use of this literary form as a research technique beginning with Thomas and Znaniecki's The Polish Peasant in Europe and America published in 1918, 1919, and 1920. Since that time autobiography as a research tool has been widely used in connection with research in that field and both published and specially written materials have been utilized for research. For the most part, psychologists have, until recently, tended to avoid the use of published material and have leaned more toward materials written under greater control as in directed autobiographies, interviews, themes, etc. Several reasons for this preference seem likely:

1. The possibility that published autobiography may be too much influenced by the fact of publication and result in errors such as presentation of the best possible picture rather than the true picture, elimination of
important information through editing etc.

2. The psychologist, to date, has been most often interested in studying specific aspects of personality or aspects more readily subject to quantification. Hence, he has preferred more directed types of material the control of which will include more of what he desires to observe. The practical consideration of reduced bulk is also an important consideration.

3. Furthermore, psychologists have preferred, for the most part, to work with more objective instruments in their studies and have had for some years a tradition of emphasis upon psychophysical and statistical methods which do not readily apply to personal documents.

**Types of Autobiography**

G. W. Allport (6) has classified autobiographies in three categories: the comprehensive, topical, and edited.

The comprehensive autobiography he defines as "one that deals with a relatively large number of lines of experience, giving a picture of variety, roundness, and interrelatedness in the life." This is the type of autobiography most popular as literary work. Psychologists, however, have tended to avoid this type of material as being too vague for research purposes.

More useful for the psychologists' needs is the topical autobiography in which the individual writes his life story in parts. Thus autobiography really becomes a compendium of various experiences. This method lends itself more readily to complete coverage of the specific areas of interest to the researcher and is less likely to contain large, and oftentimes bewildering, wanderings from the main topic. Topical autobiographies
range from a questionnaire (Katcher and Feriss) (48) to such broad topical assignments as to shade into the comprehensive autobiography at the other extreme. Symonds (107) has used topical material extensively and finds such material far preferable to any other.

The third type listed by Allport (6) is the edited autobiography in which the investigator excludes all those materials which he feels to be extraneous to his purpose. This method has the advantage of reducing the bulk of autobiographical material, eliminating repetition, illegibility, poor organization, etc.

**Research Use of Autobiography**

In considering the autobiography for use as a research technique it is necessary to raise two very pertinent questions:

1. Do such materials represent admissible evidence?
2. Of what use are they if such validity can be satisfactorily demonstrated?

In the earliest days of psychological science the introspectionists recognized the necessity of getting at the inner life of the subject or the ways in which what an individual experienced was understood by the individual himself. Later, with the recognition of the many inaccuracies of the method and the desire of the young science to be more exact in its measurements, psychology very largely turned its back upon the subject's own statements of his experience in favor of more objective external observations. Such external observations have, however, grave limitations and psychology has more recently turned attention again to the individual's own conception of his experience. In addition, it has been recognized that even the inaccuracies of introspective judgment are likely to be revealing of personality and that distortion of fact may itself explain much that motivates behavior. Thus the use of introspective
accounts has regained some of its former status with certain psycholo-
gists although they are still regarded with great skepticism by others.

G. W. Allport (6) and the Social Science Research Council have de-
voted a volume to the discussion and examination of the "Use of Personal
Documents". This excellent piece of work has attempted to answer numer-
cous criticisms of the use of such materials and to suggest further means
of making them more exact and profitable as research tools. In
this discussion the authors have analyzed the arguments for and against
the use of personal documents. Opposed to such use they have indicated
the following:

1. Unrepresentativeness of sample
2. Fascination of the author with style
3. Nonobjectivity
4. Validity cannot be estimated
5. Conscious and unconscious attempts by the author to
deceive the reader
6. Self deception of the author
7. Blindness of the author to his own motives
8. Oversimplification of events and circumstances
   probably highly complex
9. Effects of mood on the writing
10. Errors of memory
11. Implicit conceptualization
12. Arbitrariness of conceptualization
13. Scarcity and expense
14. Personal documents are not science

In discussing these arguments the authors point out that objections
fall into three groups; those which are irrelevant, trivial or false,
those true under certain conditions but remediable, and those generally
true and admittedly serious. In this last group are placed only the charges "that conceptualization is arbitrary and predetermined by the writer or by the analyst".

On the other side of the ledger these authors have presented the case in favor of the use of such documents as follows:

1. They make possible concrete inspection of subject matter
2. They reveal the raw facts with respect to human behavior
3. They are superior to behavioral observation in exploring subjective meaning
4. They are valuable in training students
5. They show the cognitive and affective context of behavior
6. They aid the observer in maintaining an organismic approach
7. They are of value in investigation and classification of types
8. Single cases may arouse ideas
9. They bring psychology closer to the social situation
10. They yield understanding
11. They make prediction possible
12. They make possible control of behavior

Allport (6) concludes this extensive examination of the pro and con of the use of personal documents with:

"The evidence in hand justifies our plea for the use and refinement of those common sense modes of mental operation which are characteristically concerned with the behavior of the single case in all its patterned complexity. Unless these tools of common sense are admitted to the equipment of the social disciplines it is difficult to see how these disciplines can in the future outstrip naked common sense."
While this discussion presents some of the logical evidence for the inclusion of personal documents in psychological science the question of the validity and reliability of such evidence nevertheless remains to be demonstrated.

**Validity and Reliability of Autobiography**

In any discussion of the question of validity and reliability of autobiography, it is necessary to keep clearly in mind that these terms are being applied, not to the materials themselves but, to the judgments or interpretations made from them. Reliability in an exact sense applied to the original materials is probably extremely rare for the very character of such instruments is intended to yield free and highly individual responses. The term reliability has often been loosely applied without making this important distinction. Furthermore, in applying these terms to interpretation it is necessary to be keenly aware that reliability by no means indicates validity or that validity necessarily implies a corresponding reliability of judgment. In the more or less controlled situation of traditional testing there often exists some degree of relationship between these two. In the greater freedom of interpretation from autobiography however, it may be possible to have interpretations by different judges show little or no reliability or agreement and yet each be valid judgments because each analyst responds to a different phase of the original materials. It is likewise quite possible that two judges might arrive at the same interpretation and yet each be in error with respect to the actual situation existing with the subject.

Cartwright and French (27) have demonstrated this difficulty of interpretation in their attempt to determine the reliability of life history material. These authors independently attempted to write life
histories of a single subject. They utilized for this purpose diaries, interviews, the subject's writing etc. On completion of their analysis the two life histories were compared with each other for reliability of the judgments of the authors. The reliability found was disappointingly low. When, however, each attempted to check the validity of his life histories by justifying the assumptions made in the case history to the satisfaction of his co-worker, very high validity scores were obtained. Validity scores in fact, appeared far greater than reliability. They conclude from these results that "reliability" is not the "sine qua non" of use for such materials and that determination of the reliability of such materials must be different from ordinary test methods. It thus appears that different judges may stress different aspects of a particular personality and each be essentially accurate in his judgment. When such judgments are compared however, "reliability" is low. "Reliability" in this instance becomes a measure of overlap of the separate judgments involved.

It is probable that the use of the term "reliability" is unwarranted in dealing with such materials. Webster defines "reliability" as "suitable or fit to be relied upon; trustworthy." Obviously this implies that if the relationship is low or non existent the validity of interpretation is questionable. Mac Farlane (59) in his discussion of this question has suggested the use of the term "congruent" as a substitute term in dealing with interpretational materials. Webster defines congruent as "possessing agreement or correspondence between things; a point of agreement." This term seems to us much more accurate and descriptive and possesses the further advantage of not implying validity. We have, therefore, used "congruent" in this paper to represent agreement between interpretations in preference to "reliability".
Other Studies on the Validity and Congruity of Interpretation from Autobiography

Stouffer (99) in a study of attitudes toward liquor and prohibition used autobiography as his source of data with a congruity among his judges of .96. Comparing these ratings with attitude scales on the same subjects gave a validity coefficient of .81. These results seem remarkably high as compared to most studies with such materials and may be due to the highly restricted question with which he dealt.

In another study of 600 written reports at the college level, Cavan, Houder, and Stouffer (30) collected independent ratings by three judges on certain prescribed factors in case histories. These student reports had been written according to a prepared outline. The authors report contingency coefficients of .80 and consider .266 as the highest possible theoretically. Judges did as well in classifying these materials as they did for classifying responses from questionnaires.

Thurrow (111) investigated certain selected factors in family life as these were described in autobiographies of 200 college students. In validating these materials the author submitted the autobiographies to a number of judges for ratings on a three point scale for such factors as church attendance, tension in parents, confidence in mother etc. She reports agreements between 80 and 83 per cent when five judges independently rated the same autobiographies. In a second phase the author rechecked five autobiographies after a six month interval and found agreements with herself of 89 to 96 per cent. This was a fairly straightforward analysis in terms of the evidence indicated. It is likely that these agreements would not appear so high had ratings been made on more abstract considerations. In any event, this is the only instance we have been able to discover which has attempted to subject analysis of autobiography to any
considerable statistical check of congruence.

The author concludes — "the material presented appears to have re-
search value. The investigator believes that it is not only methodologi-
cally possible, but, that it is from a practical standpoint, profitable
to explore autobiographical material in an attempt to describe and ex-
plain some of the complex relationships in family life."

Kreuger, (57) in an unpublished dissertation at the University of
Chicago, attempted to establish the validity of autobiography and con-
cludes such documents are especially useful in discovering the origins of
social attitudes. This conclusion has not been borne out however, in the
research of Symonds (107) who did not find his subjects able to judge the
origins of their behavior with any startling degree of success when asked
to examine such questions as the reasons for entering the teaching pro-
fession and the like. Clinical experience with client reporting of the
origins of behavior tend to corroborate these findings. It seems possible,
however, that a subject's report of what happened and "how I feel about
it" might still be highly valid as data for interpretation by an external
and competent analyst.

From a review of these extremely sketchy experimental results, it
appears reasonable to conclude that the validity and congruence of inter-
pretations from autobiographical materials is by no means established for
the method in general. The technique is necessarily complicated and
criteria for the making of interpretations differ widely. In addition,
the materials themselves are likely to vary tremendously depending on the
purpose for which they were collected, the way in which collection was
accomplished and the form of instruction given for writing.

It thus appears that those wishing to use such materials for re-
search purposes must establish the reliability of their own materials for
the specific purpose for which they are to be used. At present writing it appears that this may best be accomplished by the employment of one or more of the tests of validity proposed by the Social Science Research Council (6):

1. Feelings of subjective certainty.
2. Conformity with known facts.
3. Mental experimentation.
4. Predictive power.
5. Social agreement.
6. Internal consistency.

Use of Autobiography in Psychological Research

In spite of the difficulties of establishing the validity and congruence of interpretation from autobiography such materials have been used fairly extensively for research and clinical purposes. These uses might be grouped as follows:

1. Clinical use for purposes of aiding insight and leading to diagnosis.

In this group we include psychoanalysis which may be thought of as a form of autobiography. Among staunchest advocates of such use of autobiography are Healy and Bronner who have strongly urged the necessity of getting "the child's own story" as it contributes to the clinical understanding and treatment of delinquency. In other areas of social work, particularly family case work, autobiography has proven useful in arriving at better understanding of problems and more realistic, effective and acceptable therapy.
2. Studies of the interaction of the individual and the group.

Among the significant studies in this group may be mentioned those of Blumer (19), Burgess (24), Allport and Blumer (4), and Komarovsky (55).

3. For the construction of tests

In this group we include those uses of autobiography to reveal aspects of personality for inclusion as test items in various types of instruments. Perhaps the most recent example of this type is Mooney's (67) use of autobiography in constructing his Problems Check Lists.

4. Exploratory research directed toward uncovering important factors operating in personality in special groups.

Outstanding examples of this type of research are studies of stutterers by Johnson (51), of the deaf by Habbe (41), of old age by Buhler (22), of visually handicapped by Bender (17), of adolescents by Blos (20) and Hatcher (48), and of teachers by Symonds (107).

5. Analysis of historical personality.

One of the most notable in this field is the study of historical personalities made by Fearing (37).

In view of the fact that Symonds' (107) use of autobiography was very similar to the use we intend to make of such materials in this experiment, we feel it desirable to report at greater length Symonds' findings and comments on this instrument. He has used autobiography fairly extensively
in classes in mental hygiene for various purposes. In one study with Jackson (106) he claims that when obtained as a regular school exercise autobiographies have considerable value for supplementing and corroborating information gained in the interview. The authors feel too that this device covers points of interest much more than other methods since the answers to questions put to the individual are not necessarily the expected ones as would be true in a questionnaire or multiple choice type of analysis.

In a study of the autobiographies of teachers in a summer mental hygiene class, Symonds (107) has used Murray's "need-press" method of analysis in getting at the data. This, as we have previously pointed out, is the method of analysis recommended by Murray (71) for use with the Thematic Apperception Test. In addition to the analysis of the autobiographical material, the teachers were also asked to rate themselves on a list of "needs" like the one used in analyzing the autobiographies. Symonds found that on these ratings teachers tended to rate themselves high on those needs generally typical of the teacher according to popular conception. However, these high ratings were not borne out in the analysis of the autobiographies.

In his discussion of the use of autobiography preceding the presentation of his results, Symonds states the case for the use of such materials in research, particularly when collected, as these were, as a regular assignment in a mental hygiene class. He feels materials collected in this way may be superior to other methods because of the emphasis on developmental factors in the mental hygiene course. He feels the writer of an autobiography under these conditions has less need to be self-protective. The author states the following advantages of such a method of collection:
"A course in mental hygiene should do two things along this line. The lectures, discussions and readings should have prepared him (the biographer) to expect to find certain trends in himself which he previously might not have been altogether ready to admit. To the extent that he finds aggression, guilt, anxiety, jealousy, revenge, etc. common, or universal, in others, he will be encouraged to look for the same things in himself. It may be remarked in passing that a good course in mental hygiene must be expected to release a certain amount of anxiety in the students who attend it as it describes personality characteristics which otherwise would be shut out from recognition by each individual. So autobiographies written at the end of a course on mental hygiene should reveal more of the unconscious than one would expect of more naive persons."

Further -- "A general factor which would make these autobiographies more than ordinarily valuable for revealing needs is a growing sense of familiarity with the instructor. Whereas an autobiography called for at the beginning of a course would be written for a stranger, at the end of the course the class knows the instructor for whom they are writing and presumably feel more confidence in writing frankly for him."

The author concludes from his study that the use of autobiography is justified in research as a method of "yielding clues and hypotheses as to the possible dynamic factors," responsible for the development of the individual's behavior."
In summary it may be said that although autobiography has been rather widely used for various purposes, it is by no means generally accepted as a valid or reliable research instrument. The difficulties of working with materials which lend themselves so poorly to statistical treatment are very great. In spite of these difficulties of quantification, however, we have utilized autobiography for purposes of this research as the most feasible method of acquiring a sampling of the life experience of our subjects as that experience appears to them.
CHAPTER IV

THE PROBLEM AND PLAN OF EXPERIMENT

The Function of Projective Devices in the Study of Behavior*

In recent years it has become more and more apparent that traditional rating scales, questionnaires, etc., have failed to bring about the understanding of personality we should like to achieve. Certain aspects of personality have remained stubbornly impregnable to attack with the old tools. It has become certain that newer and more effective devices were necessary to investigate certain persistent behavior trends whose existence practically no one denies, but whose measurement has been extremely difficult.

The determinants of a specific behavior are 1. the instigating environment and 2. the nature of the organism.

Within the environment of the individual the determining factors of behavior are:

1. Specific stimuli, objects, situations and organizations of such stimuli.

2. The total psychological atmosphere.

Because these environmental factors lend themselves to manipulation and experimentation they have been extensively studied in psychology. Those determinants of behavior lying within the organism however, are somewhat more inaccessible to study and psychologists have been less successful in working with that aspect.

We might classify these determinants as follows:

1. Response mechanisms related to the specific stimuli stated in 1 above. This would include simple response to people, places and things and might also include

*The author is especially indebted to Dr. H.B. English for the basic pattern of this analysis.
more generalized responses attached to specific stimuli as observed in phobia, for example, where a generalized fear may be a response to a specific stimulus.

2. Certain total temporary conditions of the organism. This would include such conditions as mood, fatigue, effects of disease etc.

3. Generalized controls of behavior. This category represents at once the most inaccessible and probably most significant determinants of behavior and includes such factors as temperamental trends, psychological and physiological "needs" of the organism, abilities, interests, attitudes and the like.

Most psychological experimentation, particularly laboratory study, has been directed at exploration of the specific responses of the organism and to a lesser extent to the temporary conditions of the organism while the generalized controls of behavior have been fairly exclusively the domain of "testing". It is with this third category of determinants of behavior that projective instruments are concerned. While tests have contributed very greatly to our understanding of these areas, their restricted and largely predetermined character has not made them useful for exploration. Tests ordinarily function to reveal what the test was designed to reveal; projective devices are designed to reveal whatever is possible of revelation without restriction or focus on specific aspects.

It is probable that the significance of behavior may be represented as a continuum from that which is completely unknown at one extreme to
that which is obvious at the other. Thus, any behavior may have more or less of a hidden significance. The experimental work with "expressive movements", for example, suggests such factors in operation.

It is likely that certain kinds of situation-stimuli are especially well adapted to reveal these trends and that certain, now hidden, behavior trends tend to become associated in certain total personality patterns with particular responses to particular stimuli. In other words, it seems probable that certain of these hidden behavior trends may be revealed through response to some external stimulus. This is the basic hypothesis upon which projection operates. The task thus becomes one of finding and refining situation-stimuli which will reveal these obscure behavior trends of the organism and of interpreting them accurately in terms of the organism.

White (117) has pointed out three areas of personality particularly elusive to ordinary forms of measurement:

1. Those desires, needs, wishes, fears, motivations, which the subject will not discuss because he has a need to protect himself.

2. Those things which the subject would discuss, but which he cannot because they are repressed or because he does not know how to express them intelligibly.

3. Lastly, are those things which the individual does not even recognize himself, those things so deeply ingrained as to be completely unconscious to the person possessing them.

It is to investigate these areas of human behavior that the projective techniques including the T.A.T. have been developed.

Murray (71) has stated the purpose of the Thematic Apperception Test
as: "a method of revealing to the trained interpreter some of the domi-
nant drives, emotions, sentiments, complexes, and conflicts of a per-
sonality." While some previous work has been done this claim for the
T.A.T. has not yet been satisfactorily demonstrated. It is our hope that
this paper may serve to shed some light on the validity of this basic
assumption.

We have concerned ourselves here with two important questions, one
with respect to validity and the second a purely methodological question.
The question in this research may be formulated as follows:

To what extent are certain important aspects of personality as re-
vealed in response to the Thematic Apperception Test discernible in
autobiographical materials of the same individual? If we agree that auto-
bioigraphy represents a legitimate although limited picture of the indi-
vidual's experience as it appears to him, then such a comparison should
in some measure serve to demonstrate the validity of the fundamental
assumptions of the T.A.T. and in a limited fashion throw some light on
the fundamental "projective hypothesis" or perhaps such a comparison may
demonstrate that the two devices operate to bring to light different
phases of personality structure.

Under the major proposition we have asked the following specific
questions:

1. To what extent can the total information derived
   from Analysis of T.A.T. be matched with the auto-
bioigraphy of the same individual?

2. To what extent are the actual situations written
   about in T.A.T. stories discernible in autobio-
   graphical materials from the same individual?

3. To what extent do the major motivations appearing
in T.A.T. stories agree with those in autobiographical materials from the same person?

4. To what extent do the action outcomes of "crisis" situations as interpreted from T.A.T. stories agree with similar interpretations from autobiographical materials of the same person?

In order to study these questions, it is necessary to have available a comparable method of analysis for both the T.A.T. and autobiographical materials.

At present writing no method of analysis of T.A.T. exists which enjoys even a majority usage. Practically every worker with the test has devised his own method of analysis. The methods recommended by the author of the T.A.T. have pretty largely been rejected by other workers (Harrison (46), Masserman and Balken (61), Rotter (83) ) as being based upon a theory of personality which has itself yet to be established. The method suggested by the authors of the T.A.T. is cumbersome, heavily loaded toward the psychoanalytic, and tends to destroy the very wholeness of the interpretation which most users of the projective method wish to attain. Since such a study as we have attempted must first be based upon a workable method of analysis, our secondary problem lies in attempting to find a means of analysis less subject to the above mentioned criticisms.

A secondary problem in this study, then is to devise a feasible method of analysis of such data and to subject this method to tests of validity and reliability.
CHAPTER V

COLLECTION OF DATA

The data for this investigation was collected in two sections. The first set was obtained in the Fall Semester of 1943 from the author's Mental Hygiene class at Syracuse University. The second set was collected from a similar class in the Spring Semester of 1944.

Nature of the Group

From the two sets of data accumulated, the data for this experiment were selected by taking the first 40 sets of materials submitted by the females of the group and all of the sets of material submitted by the six males which met the criteria for inclusion. These criteria were as follows:

1. That all materials be complete.

2. That autobiographical materials be adequate; i.e., that there be sufficient material for the purposes of the study and which showed real effort and desire to cooperate on the part of the writer.

3. That the writer be naive to the T.A.T. (one graduate male was discarded for having had previous experience with the test.).

4. That the experimenter have no knowledge of the contents of the papers previous to the start of the study.

The final group was composed of the following individuals:

40 females

§ graduate women working for M.A.'s in Education

32 undergraduate junior and senior women in Liberal Arts, Education, Public Health Nursing, and
Business Administration

6 males

2 graduates working for M.A.'s in Education and Speech

4 undergraduates in Liberal Arts

From this group two sets of data were obtained: 1. A complete set of responses to T.A.T. pictures, and 2. A set of papers on various aspects of the individual's personal life, altogether comprising a fairly comprehensive autobiography.

The Thematic Apperception Test Data

Stories were collected during the first two weeks of December 1943 and from February 1 to April 24 in the second semester.

The following instructions were given both groups in the collection of the T.A.T. responses:

"I am very much interested in a new test of imagination that has recently appeared. You may remember, I mentioned the first day we met that I might ask each of you during the semester to assist in some sort of research project as a regular part of the requirements for completion of the course. Since I am much interested in this new test, I should like to try it out on this class. We will consider this a regular part of our semester's work.

"The test is a series of twenty pictures for each of which you are asked to write a story. (Several samples shown here). All necessary materials and instructions are on Closed Reserve in the library and you may get them by asking for the Imagination Test. You are asked to write for six minutes on each picture, so you had better plan your time accordingly. I do not think it wise to attempt to do all the pictures at one sitting. You are too likely to "go stale" on them. Better plan on
two sessions at least.

"Paper will be provided on which you may write your stories. Please use this form in heading your paper:

<table>
<thead>
<tr>
<th>Your name</th>
<th>Number of the picture</th>
</tr>
</thead>
</table>

"One other point—there are pictures for men and women together, pictures for men only, and pictures for women only. These are in separate folders. Write stories about those pictures applicable to your own sex only.

"All stories must be in one week before final exams. A record will be kept posted on the bulletin board as your stories are turned in so you may know which you have completed and which you have yet to do. Are there any questions?"

Individual questions were then answered briefly along the lines indicated above.

The Thematic Apperception Tests were placed in the library on Closed Reserve along with supplies of paper. The librarian was taken into the author's confidence on the project and her help enlisted in keeping materials in order and in watching proceedings in general. The materials "on reserve" were in three folders marked respectively: FOR MEN, FOR WOMEN, and FOR BOTH MEN AND WOMEN.

Each folder contained the proper pictures and a sheet of instructions as follows:
Directions for the Test

This is a test of imagination, one form of intelligence. Look at the enclosed pictures one at a time. Your task is to make up as dramatic a story as you can for each. Tell what has lead up to the event shown in the pictures, describe what is happening at the moment, what the characters are feeling and thinking, and then give the outcome. Put down your thoughts as they come to your mind.

Use a new sheet of paper for each card. At the top of the paper put your name in the left-hand corner and the number of the card about which you are writing in the right-hand corner. Allow yourself six minutes for each card. Write for the full six minutes. Write rapidly.

There are 20 cards in the set. Be sure to use only those in the folders marked for your sex. Do not write for more than one hour at a session.

Number 16 is a blank card—in this you are simply to make up any story just out of your head. Do not wait until all stories have been completed. Turn them in to room 205-A at the end of each session. (If the office is locked, slide papers under the door.)

Please do not keep these pictures any longer than absolutely necessary and please return to proper folders.

Until the stories had been prepared for use the author did not see them at any time. As stories came in they were handled entirely by the author's assistant.
This assistant accepted the papers, recorded them and filed each story in a folder. At the end of the semester, when all twenty stories were in, she assigned each student a random number, placed this number on each sheet of the student's stories, and carefully cut off the upper left hand corner of each sheet eliminating the student's name. The numbers assigned each student were placed in an envelope and sealed to await use later in the experiment.

Thus we arrived at a set of numbered folders, each folder containing 20 stories written in response to the T.A.T. pictures by a single student.

Two deviations from Murray's methods of administering the T.A.T. should be discussed at this point. The first of these, an increase in the time limit for collecting stories from five to six minutes, was made in view of the fact that our materials were collected by having the student write stories rather than taking stenographic records of the spoken narrative. In view of the comparative slowness of writing, this increase in time seemed justified to assure getting stories of sufficient length for analysis. It was found that six minutes was about the right length of time for the writer to cover a single sheet of 8½ x 11 paper.

The second change we have made in our methods of collection involves having our subjects write their stories in place of having them speak their plots in the presence of the examiner.

The originators of the T.A.T. report that they had tried using the test as a group test on one occasion and found that "the time saved was considerable but the results proved less satisfactory." (59)

Sanford (85), in a research reported in an unpublished Ph.D. dissertation at Harvard, mentions that he had considered using T.A.T. as a written device, but decided against it as he felt the high degree of de-
liberation involved in writing stories would tend to obscure individuality and bring about too great "adherence to school room norms."

On the other hand, Symonds, (105) in his work with picture responses has consistently had his subjects write their stories and apparently with good results. Mascherman and Balken (61) likewise have used written stories and express the opinion that with intelligent adults it is feasible to furnish adequate instructions and have the individual write his own story.

It is our opinion that the stories we have collected for use here are not greatly affected by the change in method of administration. The fact that they were written against a time limit and outside class pretty much at the leisure of the student and in a fairly relaxing atmosphere would appear to answer Sanford's objections indicated above. It also seems possible that unless considerable time were spent in establishing rapport, taking a stenographic record of spoken stories might well cause more embarrassment and hesitancy to "let go" than is true in a story written in privacy and submitted to a single reader in whom the subject has some degree of confidence. Certainly a casual examination of the materials we have collected gives one the impression of extraordinary frankness and willingness to deal with topics that might well cause embarrassment in the face to face contact, particularly of a mixed company.

The Collection of Autobiographical Data

As Allport (6) has pointed out in his monograph on the Use of Personal Documents, best results are ordinarily obtained for research purposes when autobiographies are written with some degree of control. Since this is consistent with our own findings in previous mental hygiene work, it was decided in this research to collect materials by a series of assignments bearing on various phases of the individual's life.

It has been the writer's custom on the first day of class in his
Mental Hygiene section to place on the board the objectives of the course. For each of these objectives, furthermore, some discussion is held as to: 1. methods we shall employ to arrive at these objectives, and 2. ways in which we may evaluate the degree to which the objective is accomplished by the student. Among other objectives, stress is laid upon the development of self-understanding. In discussing means of evaluating or demonstrating such self-insight, it is pointed out that throughout the semester papers will be called for dealing with various aspects of the student's personal life and climaxed at the end of the semester by an autobiography and evaluation of his personality. This is consistent with Symonds' (103) methods previously indicated. Thus, the student is given the responsibility of demonstrating self-insight with respect to his personality, and for illustrating this by concrete instances from his life history.

Following the discussion of these matters, the attention of the student was called to the course outline in his hands showing the due dates for each of the assignments; in general, one each two weeks throughout the semester.

The class was assured that their confidence would be absolutely respected and that these autobiographies would be seen by no one but the instructor who would treat all materials as matters of personal confidence and subject to the same professional ethics as confidence given in a counseling situation. To further protect the individual, each student was given a number at random and requested to identify whatever materials he turned in throughout the course with this number in place of his name. This proved a most effective device, and, while materials tended to improve throughout the semester, from the very first a surprising degree of frankness was exhibited.

The first semester subjects were assigned the following topics at
approximately two week intervals throughout the semester:

1. Incidents in my life having a lasting effect on my personality and how I think they have affected me
2. Factors in my life making for self-confidence and lack of self-confidence
3. My early life in my family and its effect on me
4. Feelings of inferiority I have had
5. My earliest memories and what I would do with three wishes
6. People in my life and their effects on my adjustments and maladjustments
7. My autobiography and evaluation of my personality

The second semester subjects were treated in exactly the same way except that one substitution was made in the requirements. In place of the assignment on "Inferiority feelings I have had" which overlapped too greatly with assignment No. 2 on self-confidence, a paper on "My present problems" was substituted.

In each case, approximately one week prior to the due date, a few minutes was taken in class to discuss the assignment. The kind of material desired was suggested by several anecdotes of typical cases. In answer to the inevitable question as to the proper length for these assignments, it was pointed out that this must necessarily be a highly individual matter and that the amount written would depend on the conscience, frankness, and ability of the writer. A continuous record of these assignments was posted on the bulletin board so that each student might keep track of his progress and standing.

As each set of numbered papers was turned in, they were quickly graded S plus, S, or U. These grades were assigned very loosely by the instructor
on the appearance and apparent length of the report. No papers used in
the experiment were read by the author at this stage. The entire batch
was quickly assigned grades in approximately five to ten minutes on the
basis indicated above and turned over to the author's assistant for the
recording of grades and filing. In two cases where students requested the
writer to go over a paper in conference, the entire folder was discarded
from the experiment. After recording of grades, papers were collected
for each student in folders according to his assigned number.

Before beginning the analysis of the data all folders were removed
from the file and carefully checked by the author's secretary to make sure
they contained no identifying data beyond the assigned number.

Thus for each student, there was accumulated two folders of materials,
T.A.T. stories, and autobiographical data, each folder bearing a different
number. Six months later the analysis was begun.
CHAPTER VI

MATCHING OF TOTAL MATERIALS

The purpose of this phase of the experiment was to determine the degree to which interpretation of the T.A.T. stories of a single individual expressed in the form of a "thumbnail sketch" could be matched with the autobiography of the same individual.

Technique of Matching

Making of T.A.T. Sketches

Without knowledge of the identity of the writer, each set of twenty stories was carefully analyzed twice. The first time each was examined in detail for Part III of this study and an "Analysis Sheet" (see appendix G) was made. This analysis sheet, made six months previously, was utilized as a starting point for this phase, and the stories were read a second time, to make whatever interpretation seemed possible from the analysis sheet and the original material. From these interpretations a thumbnail sketch was written. (See appendix A) Each thumbnail sketch thus contained all interpretations or information that could be gathered from two analyses. Each thumbnail sketch was divided into two sections. One section was marked "Strongly Indicated" and included those facts and interpretations which seemed most clearly defined in the twenty stories for that individual. The second section was marked "Weakly Indicated" and included any item that seemed less clearly indicated.

Autobiographical Summaries

It was quickly apparent that to attempt to hold anywhere from twenty to sixty pages of autobiographical material in mind in making these matchings was an impossible procedure. Therefore, each autobiography was
carefully read and summarized as much as possible in the words of the subject in a page and a half of single space, small type copy. (See appendix B)

On the completion of these two operations there was available:

1. A set of 46 thumbnail sketches taken from T.A.T. stories and identified only by a code number.

2. A set of 46 autobiographical summaries for each of these same persons also identified only by a code number.

**Author's Matching Attempt**

The six male cases in our group were separated from the forty female cases, and the author attempted to match the autobiographical summaries with the appropriate T.A.T. sketch. Each autobiographical summary was carefully read, and as each was completed, the author read the six T.A.T. sketches and assigned one to the autobiography just completed. He was successful in matching all six of these cases.

The same technique was then repeated in matching the forty female cases. This proved to be a tremendous task, and after two weeks of steady work the results were examined only to find that the author had succeeded in matching but five of the forty correctly.

Several reasons for this low degree of matching appear reasonable in terms of the task itself and without reference to the validity of the data:

1. The mass of data was much too great to be successfully handled.

2. By the time forty sketches were read the matcher became hopelessly confused as to what was sketch and what was
autobiography.

3. The matcher was misled by minor but striking similarities instead of important but less clear general trends or interpretations.

Use of Judges for Matching

In view of our experience, therefore, it was decided to submit these materials to other judges for matching with the following changes in instructions:

1. Each judge was asked to match only 10 sketches with 10 autobiographies.

2. A set of written instructions was prepared to guide them in matching which incorporated the results of our experiences.

Judges used in this phase of our experiment were as follows:

6 graduate students in clinical psychology
3 instructors in psychology
2 teachers with considerable psychological background
3 clinical interns
1 professor of psychology

Six sets of materials for matching were prepared. Set #1 contained our 6 male cases. Sets 2, 3, 4, and 5 were sets containing 10 sketches and 10 autobiographies. Each of these latter set was selected at random from our female cases. Each cooperating judge was given a set of materials and a sheet of instructions for matching. (See appendices A, B & C) As each set was returned the judge’s score sheet was checked against our key and the results recorded.

To determine the likelihood of such matchings by chance the follow-
ing formula was used:

\[ P_{n,h} = \sum_{r=0}^{r=n-h} \frac{(-1)^r}{r!} \quad \text{Wilks (118)} \]

Table I presents the results of these matchings and the likelihood of such matchings by chance according to the above formula.

From this table it is clear that successful matching of these materials was very limited. On the other hand probability scores in most cases are sufficiently great to indicate that such matchings as were made were probably not due to chance only. Several possible reasons are suggested for these low matchings:

1. That matchers were incapable of the task set for them. This seems to us possible but not very likely in view of the author's own difficulty in matching successfully. In our opinion each of our judges possessed sufficient clinical insight, that had there been real basis for matching, they would have been more successful. Some of our judges spent as much as ten hours on these materials with no more success than has been indicated above.

2. That the analyst was not capable of making interpretations. This too does not seem a satisfactory explanation to us. If the background and training of the analyst and two years experience with these materials do not lead to adequacy, it is difficult to see how an individual might be trained in this technique for practical purposes. The essential
**TABLE I**

**SUCCESS OF JUDGES IN MATCHING T.A.T. SKETCHES**

**WITH AUTOBIOGRAPHICAL SUMMARIES**

<table>
<thead>
<tr>
<th>Judge #</th>
<th>Set #1</th>
<th>Set #2</th>
<th>Set #3</th>
<th>Set #4</th>
<th>Set #5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># cases matched</td>
<td>Probability of matching</td>
<td># cases matched</td>
<td>Probability of matching</td>
<td># cases matched</td>
</tr>
<tr>
<td>1</td>
<td>6</td>
<td>.0014</td>
<td>5</td>
<td>.0030</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>.0014</td>
<td>3</td>
<td>.116</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>.19</td>
<td>4</td>
<td>.0164</td>
<td>4</td>
</tr>
</tbody>
</table>

*No. cases for Matching*  
6  10  10  10  10

*Probability of such matching by chance alone. .0014 may be read 14 chances in 10,000.*
agreement of six other competent judges with interpretations made by the analyst in one of our two analyses has been quite satisfactorily demonstrated in Chapter IX.

3. That the materials we have attempted to match are matchable only to a small degree. These results suggest that although there are identical elements in the instruments we have worked with, the two instruments are also widely divergent in other aspects.

In order to study this possibility further we, therefore, examined our sets very carefully placing each sketch side by side with the appropriate autobiography. Three distinct impressions were created by this technique which offer some explanation for our low matchings.

1. It seemed to us that the feelings, desires and attitudes expressed in T.A.T. were often more violent or extreme than those in the more prosaic autobiography. It is quite likely that at least a part of this greater violence may have been due to the form of instructions for the T.A.T. which requested a "dramatic" story. Nevertheless, the interpretations from those stories, even though we discount considerably the affective content, still contained some indication of this more drastic feeling and action. It is possible that this exaggeration produced a distortion of feeling, attitude or action so great that the original character could not be easily recognized from the more factual and "calmer" autobiography. There is furthermore the
very real possibility that interpretation from the T.A.T. resulted in outright error due to this exaggeration of feeling and the instructions given in administration.

2. The T.A.T. appeared to be more revealing of certain feelings and attitudes which were sometimes briefly and hurriedly indicated and passed over in autobiography. For example, it was noted in a number of cases that certain recurrent plots in the T.A.T. indicated attitudes and feelings or desires indicated in autobiography by a single short paragraph buried in a mass of other detail. It is possible that our use of an autobiographical summary instead of the total autobiography may have heightened this situation and prevented matching by reducing such a paragraph to a sentence or two.

3. Finally it seemed to us in this examination that the T.A.T. interpretations generally emphasized the present or future as opposed to the autobiography which dealt primarily with the past, very little with the present and practically never with the future.

Thus, it would appear from this examination that the two instruments do not emphasize the same things or seem to reveal the same things. The question of validity of the T.A.T. interpretations and of autobiographical interpretation is of course crucial here, as, if no validity can be demonstrated this question is meaningless. In our discussion of the T.A.T.
and autobiography we have pointed out some studies on this question. It will be recalled that there is some evidence of the validity of the interpretations from these instruments although it is by no means adequate.

Three of the subjects included in this study came to the author for help in some personal problems at the close of the semester and subsequent to having completed the writing of the experimental materials. Since we are interested in the above question as to the validity of our instruments and the problem of which instrument was the more revealing of the individuals' major problems, we examined the very complete therapy records of these three cases and compared them with the interpretational sketch from T.A.T. and the autobiographical summary. This side check was made as follows:

1. The therapy record was carefully read and the general problems written down. For example—such notations were made as: "feels deeply resentful toward mother", "desires sex experience but cannot permit in self", "feels very guilty over treatment of brother" or "desires to escape comparison with sister".

2. The autobiographical summary and the T.A.T. sketch for each case was then read with reference to whether these factors were revealed or not in each instrument.

While many of the major factors in these three instances were revealed in both instruments, the T.A.T. seemed to us the more revealing of the two. In no instance was a major factor revealed in autobiography and not in the T.A.T. but in three instances factors were revealed in
T.A.T. and not in autobiography. Furthermore, a number of factors of importance in the therapeutic record appeared very strongly in T.A.T. but were very much played down in the autobiography. For example, one woman who had three times postponed her marriage because of a sex conflict says in her autobiography that she thinks she has "too much of the convent" (where she went to school) in her and in a paragraph speaks of her revulsion at attempts of boys to kiss her. Nowhere does she indicate the postponement of her marriage. In the T.A.T. on the other hand, six stories are concerned with marriage and three with the conflict which might be expressed "shall I give in or not".

We make no claims for the importance of this examination due to the small number of cases available and since no serious attempt was made to control all the variables involved in comparison. We present these results purely as a matter of interest and because they tend to corroborate an impression gained in working with these materials.

From the results outlined in this chapter the following conclusions are suggested:

1. Although matching of Thematic Apperception Test interpretations with autobiography using these methods can be accomplished with a greater than chance expectancy, successful matching is not frequent.

2. It is probable that although the two instruments overlap in some degree, each also contains some unique aspects not greatly possessed by the other.

3. There is evidence to suggest that the T.A.T. may emphasize more the present conditions of the subject,
his hopes and desires for the future to a greater extent than autobiography.

4. There is evidence to suggest that T.A.T. may reveal more violent and socially unacceptable feelings and attitudes than autobiography.

Certain considerations with respect to these instruments seem to us possible explanations for the above phenomena. The projective instrument is purposely designed to catch the subject off guard and to offer him the protection of anonymity in revealing his innermost feelings and tendencies. As a result it should be a device offering greater freedom of expression for violent and socially unacceptable feelings, attitudes, desires etc.

The autobiography appears to be definitely restricted by the very nature of the instrument to a smaller range of expression. It is likely that many aspects of the subject's personality may not be revealed in autobiography because the subject is unaware of their existence in himself or cannot accept such feelings within himself. There is also likely to be a resistance to expression of those feelings and attitudes he does have which are either socially unacceptable or too violent for ordinary expression. There is a real need to protect self in autobiography which offers no protective cloak to expression whatever beyond the faith of the subject in the receivers of the autobiography. It is thus probable that there is likely to occur in that instrument a tampering down of expression or even a conscious or unconscious attempt to deceive. Furthermore, the autobiography is in a very real sense restricted by custom and tradition. The subject is almost expected in an autobiography to put his "best foot forward" so that while autobiography is confessional it is also likely to
represent an attempt at explanation or a plea for consideration. There are traditional materials to be included well established in the art of writing. Finally the very means of collection of materials is restrictive and selective. Selection is introduced by the analyst in his request for specific or general topics which tend to direct the subjects thinking and by the subject in the choices he makes from his own experience in telling his story.
CHAPTER VII

SITUATION ANALYSIS

In this phase of the experiment the following problem has been posed:
To what extent are the situations written about in T.A.T. stories actual
situations in the experience of the writer as indicated in his autobiogra-
phy?

For purposes of this analysis, we have assumed that the autobiography
represents a valid, although selected, description of the individual's ex-
perience. It is certain that it does not include by any means all or
even the most significant phases of the individual's experience. It is
further agreed that these autobiographies contain a varying and indeter-
minate percentage of error due to misinterpretation of events and inten-
tional or unintentional falsification of facts. For the purposes of this
experiment, however, the misinterpretation or unintentional falsification
of facts is not a serious problem. For, if the individual reacts to his
environment at all, it must necessarily be in terms of the way in which
that environment affects him. He must react in terms of the meaning of
that environment to him. If his interpretation of the facts is faulty
and if he is unaware of his errors he must necessarily react in terms of
his false assumptions. Hence, such misinterpretations do not invalidate
the use of autobiography in attempting to understand the dynamics of be-
havior.

Other errors, such as intentional falsification, socially acceptable
cliches, errors due to style and errors on the part of the interpreter are
more serious, however. It is almost certain that these are bound to creep
into any autobiographical materials. With present techniques it is
necessary to accept the fact that such errors exist, to interpret data in terms of this unknown error and to attempt to eliminate them as much as possible by careful planning and interpretation. In the collection of these materials, every effort was expended to protect the identity of the writer and to create a situation as nearly as practicable which would be conducive to honesty and frankness. As Symonds (103) has pointed out, the collection of such materials from a class in mental hygiene, is, in itself, likely to foster somewhat more frankness and honesty than most other situations.

According to the projective hypothesis an individual can only respond to a projective situation in terms of his own experience. If this hypothesis is correct, the T.A.T. stories of an individual should mirror his own experience. If it is agreed that the autobiography represents an approach, even though incomplete, to the individual's experience, then a comparison of T.A.T. materials with autobiographical materials should throw some light on the degree to which T.A.T. stories utilize the writer's own experience and indirectly upon the validity of the projective hypothesis.

**Techniques of Analysis**

**Theme Analysis:**

In the analysis of T.A.T. stories (more fully described in Chapter VIII), the situation or plot of the story was reduced to the shortest possible statement which still included all of the important elements of the plot. This statement we have called the "Theme". 907 T.A.T. stories were reduced to this kind of description. (See appendix G and H for samples). Autobiographical incidents were similarly treated.

**Situational Analysis:**

In this phase of the experiment we were concerned only with the
situational aspects of agreement. The problem was stated as above in the introduction to this chapter. A situation was defined as: "an event, series of events, condition, status, or combination of circumstances to which an individual was exposed". Feelings, desires, attitudes, fears, etc., were disregarded except where they were connected with specifically described situations which could be accurately discerned from the Thema reading. We were concerned here with the concrete as opposed to the abstract or interpretative phases of comparison.

Autobiographical and T.A.T. analysis sheets were placed side by side and carefully examined with respect to the Thema analysis only. Whatever portion of a T.A.T. thema could be substantiated by material in the autobiography was underlined in red. (See appendix G and H). Unless the situation described could be exactly substantiated by material in autobiography and demonstrated to the satisfaction of a second party it was not classified as an agreement. Occasionally, situations described in T.A.T. stories were the antithesis of actual situations. Since we were concerned here with exact agreement only these situations were not accepted as matching. If no substantiation could be found, the story was marked "N"; if some evidence of partial similarity was found the story was marked "E"; and if the entire thema could be substantiated the story was marked "S". These were then compiled as an indication of the degree to which actual situations from the life of the individual as revealed in autobiography were drawn upon in writing his T.A.T. stories.

In seeking a method of analysis, it was first proposed to utilize the actual stories written by the subject. Certain objections to this plan were immediately apparent. First, there was the difficulty of ruling out side issues, description and other extraneous material. Undoubtedly
much of the original material could have been shown to check closely with actual experience as described in autobiography. Secondly, however, this kind of check raised the very difficult problem of weighting. Although it may be interesting that a particular scene in a T.A.T. story is described as occurring on a wharf and in the person's autobiography it is stated that he "went down to the wharf to go fishing," it is impossible to judge the significance of said "wharf" for the personality of the writer. Furthermore, the problem arose as to what distinction was to be made between three sentences of agreement and one word of agreement. Thirdly, without some method of weighting such items it becomes impossible to express the results in any kind of meaningful statistical terms. Finally, the practical hazards of reanalyzing 920 stories and 1,400 pages of autobiographical material for obscure and isolated facts made such analysis impracticable.

Compared to the above form of analysis, the thema comparison chosen for this phase of the experiment presented certain rather distinct advantages. These might be indicated as follows:

1. By definition, the thema contained only the most important and significant elements in either the story or autobiographical incident. The thema reduced the material to its most succinct and pregnant aspect.

2. By the use of the thema for comparison, the problem of weighting was facilitated and it became possible to express agreement with respect to an entire story and yet be assured that when a rating of partial agreement was indicated that rating meant an important rather than obscure agreement. It fur-
ther made possible the expression of results in numerical terms which were meaningful and more nearly comparable.

3. The practical aspects of checking a greatly reduced body of material was a very important consideration.

4. Finally, this method made checking by a second party practicable and simple and made possible an easy "yes" or "no" analysis. Most difficulties of judgment were thus obviated.

**Validity of Comparison**

Validity of matchings on three cases was tested by the use of a second judge. This judge sat with the experimenter and examined three sets of materials previously analyzed with him. The experimenter first read the T.A.T. theme to the judge. He read next that part of the T.A.T. theme underlined for agreement. He then read to the judge the parts from the autobiographical theme substantiating his claim of agreement. No other discussion was permitted. On the conclusion of this reading the judge indicated for that story whether he agreed or disagreed with the analysis. Agreement of judge and author was complete for 100% of the 60 stories.

**Results and Discussion**

Table II summarizes the results of this phase of the investigation. From an examination of this table it appears that, considering situations only as defined here, approximately thirty per cent of the T.A.T. stories written by the individual contain significant materials drawn from his own life experience as revealed by his autobiography. Furthermore, in a
TABLE II

USE OF PERSONAL EXPERIENCE IN T.A.T. STORY PLOTS

<table>
<thead>
<tr>
<th></th>
<th>Number of stories</th>
<th>Percent of Total Stories</th>
<th>Range of individual percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>No evidence of story plot in autobiography</td>
<td>626</td>
<td>69.0%</td>
<td>35-90%</td>
</tr>
<tr>
<td>Partial evidence of story plot in autobiography</td>
<td>256</td>
<td>28.2%</td>
<td>5-58%</td>
</tr>
<tr>
<td>Story plot and life situation practically identical</td>
<td>25</td>
<td>2.8%</td>
<td>0-11%</td>
</tr>
<tr>
<td>Total Cases</td>
<td>907</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
small percentage of cases the individual may build his plot entirely around an identical life situation. While this utilization of life situations for plot material shows wide variations, none of these subjects divorced himself completely from such resources.

Certain cautions with respect to the interpretation of these results should be pointed out here. It is important to recall that these results apply only to situations as we have defined them and that these results are strictly divorced from interpretation on the part of the analyst. Murray (71) has claimed for the T.A.T. usefulness primarily for the revelation of motivating forces such as desires, fears attitudes, etc., whereas this section has disregarded all factors involving reading interpretations into the written material. Often this meant discarding of certain apparent agreements because of lack of substantiating evidence although to the eye of the psychologist the interpretation seemed quite justified. For example, in Appendix G, story number 10 states "They have put off immediate marriage" and in Appendix H, item 7r, the same person states, "I am in love with him. I hope to marry him and settle down when the war is over." This was discarded as agreement because: 1. It is not certain that the opportunity for marriage has been offered this woman, 2. The matter of "putting off" marriage is not specifically indicated, and 3. There is no evidence that this matter has been considered in those terms. It will be agreed, however, that in terms of the individual's desires the likelihood is that these situations show identical elements.

It should further be recalled that these results are for bare outlines of major significance and do not hold for total materials in the least.

It is interesting to observe the effect of the movies and the time of
year upon these stories. While we present here no evidence to substantiate these observations, it seems clear from reading through the stories that many plots are built around certain stereotyped situations as the "eternal triangle", the leave taking, "off to the wars", the joyous homecoming, etc. Much local color is likewise injected into the stories that one familiar with this campus at the time these stories were written would at once recognize. It is interesting, too, that in the group of stories written in the fall semester, Christmas is very often mentioned and stories are frequently built about family reunions at Christmas, nostalgic memories of early Christmases, etc. In those stories written in the second semester, however, Christmas is rarely mentioned but many stories are devoted to winter sports, etc. Often stories are practically identical with current movies or recognizable plots from novels. A great preponderance are concerned with social life and few at all with academic or classroom matters. Harrison (144) has suggested the construction of frequency norms with respect to the plots used for each of the pictures in the test. This would appear to be a worthwhile but mammoth undertaking and might shed much light on the question of the significance of particular plots.

We have examined our data with reference to the effectiveness of specific pictures for bringing out personal situations in story plots. This data is summarized in Table III.

The percent of utilization of personal experience in T.A.T. story writing varies from 5% in picture #2 to 5% in picture #11. It is interesting that with the exception of these two and possibly pictures 176F and 15 the remainder of the pictures are fairly constant in the amount of transferred material obtained. It would appear insofar as the utilization
TABLE III

THE PERCENT OF WOMEN SUBJECTS UTILIZING PERSONAL EXPERIENCE AS REVEALED IN AUTobiography IN THE COMPOSITION OF STORY PLOT RESPONSES TO INDIVIDUAL PICTURES

<table>
<thead>
<tr>
<th>Picture No.</th>
<th>No evidence of transfer</th>
<th>Partial evidence of transfer</th>
<th>Identical situation</th>
<th>Rank order; degree of use of personal experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>60%</td>
<td>38%</td>
<td>2%</td>
<td>4.5</td>
</tr>
<tr>
<td>2</td>
<td>42</td>
<td>53</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>3GF</td>
<td>53</td>
<td>45</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>76</td>
<td>24</td>
<td>0</td>
<td>15.5</td>
</tr>
<tr>
<td>5</td>
<td>61</td>
<td>36</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>6GF</td>
<td>78</td>
<td>17</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>7GF</td>
<td>58</td>
<td>37</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>8GF</td>
<td>60</td>
<td>37</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>9GF</td>
<td>70</td>
<td>30</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>74</td>
<td>26</td>
<td>0</td>
<td>13.5</td>
</tr>
<tr>
<td>11</td>
<td>95</td>
<td>5</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>12F</td>
<td>68</td>
<td>29</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>13MF</td>
<td>65</td>
<td>35</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>14</td>
<td>74</td>
<td>22</td>
<td>4</td>
<td>13.5</td>
</tr>
<tr>
<td>15</td>
<td>83</td>
<td>17</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>16</td>
<td>67</td>
<td>22</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>17GF</td>
<td>86</td>
<td>14</td>
<td>0</td>
<td>19</td>
</tr>
<tr>
<td>18GF</td>
<td>72</td>
<td>28</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>19</td>
<td>73</td>
<td>24</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>20</td>
<td>76</td>
<td>20</td>
<td>4</td>
<td>15.5</td>
</tr>
</tbody>
</table>
of personal experience as story plots is concerned, that the pictures have fairly equal appeal to the writers in this group.

Picture 2 depicts a farm scene showing a man and horse in a field. On the right a woman stands apparently looking off into the distance and leans against a tree. In the left foreground is a young woman holding several books. This latter figure is the most prominent and clearly indicated of the three figures. It is probable that the greater amount of identification with respect to this picture is due to the ease with which a student may identify himself with the young woman in the foreground. It will be recalled that Symonds (105) found best results in pictures containing characters with which the subject could readily identify himself because of age, culture, etc.

At the other end of the scale, picture 11 gave poorest evidence of situational identification. This is hardly surprising in view of the nature of that picture. Picture 11 is a very vague, weird scene apparently in a sort of gorge, showing a rocky path over a bridge. Approaching the bridge is a figure which might represent almost anything. On the bridge there appears very vaguely another figure apparently in flight. In the left foreground a long necked, web-footed, lizard-like animal appears to be emerging from a cave. It will readily be seen that such a picture is hardly likely to elicit a great amount of personal situational material. From our experience with this picture, it is hard to know why it has been retained in the set at all. Many of our subjects found it most difficult to respond to as they had no familiar point of origin from which to begin. It gave the poorest results of any of the pictures not only for situational matter but with respect to desires, attitudes, fears, etc. Perhaps to the psychoanalyst operating with a high degree of imagination and much
"symbolism" it may have more bearing but to the psychologist unwilling to
tread such shaky territory, it is certainly of far less value. There is
one exception to this statement, however. That is, that for certain
Jewish students this picture was often utilized on an abstract level for
stories dealing with "struggle for existence," "survival of the fittest,"
the oppression of the weak by the strong and similar indications of
possible reaction to prejudice.

It is interesting, too, that both of the woodcuts in this set of
pictures (pictures #17CF and 15) were at the bottom of the list next to
#11 with respect to transfer of situational material.

One other picture, #19, like #11 might be described as weird. This
picture, however, did not get as poor results as #11 probably due to the
fact that it represented to a considerable number of our subjects a house
buffeted by the wind and storms and thus gave opportunity for description
of their own homes and family situations.

One other "picture" deserves particular mention. #16 is not actually
a picture at all but a blank card to which the subject is asked to re-
spond. It will be noted from Table III that this card also received the
highest degree of complete transference of material. In fact, some stu-
dents departed from their custom with respect to the other pictures and
frankly indicated their transfer by writing in the first person. It would
appear that the lack of any particular scene around which to build a story
forced a more complete and direct dependence upon personal experience in
constructing a plot.

**Conclusions**

From the results obtained in this phase of the experiment, certain
tentative conclusions seem warranted.
1. That in writing T.A.T. stories, the subject seems to draw in a measurable degree upon his own life experience for at least a portion of his plot as shown by comparison with his autobiography. This finding gives support to the primary assumption of the projective hypothesis that in responding to a projective device the subject must respond in terms of his own experience. Insofar as autobiography represents a valid statement of the individual's experience, there does seem to be real transfer of life situations. We have not examined in this phase of our investigation, however, the question of the degree to which primary desires, attitudes, fears and other affective aspects of personality are transferred. It is undoubtedly these latter aspects which are far more important in the dynamic aspects of the personality.

2. That only rarely does the plot of T.A.T. stories show complete agreement with life experience as expressed in autobiography. More often the agreement is a partial agreement in which the individual apparently utilizes a phase of his experience as a base and further embellishes his plot by drawing upon matter other than that he has described in his autobiography as having occurred to himself.

3. That the majority of story plots in T.A.T. responses do not show even partial evidence of having been taken from personal life situations as revealed in auto-
biography. Again, it is essential to recall that we are speaking here of situational agreements as we have defined them and not to the affective or attitudinal aspects of personality structure.

4. That rather wide individual variations appear in the degree to which personal life situations as revealed in autobiographical materials are utilized in T.A.T. plot construction. These variations range from an almost negligible evidence of transfer to evidence of transfer in more than half the stories written.

5. That, although most of the pictures seem to encourage roughly equal amounts of transfer, picture #2 seems distinctly superior to the others for this group of subjects and picture #11 appears distinctly inferior in this regard. The two woodcuts, pictures #17GF and 15, also seem weak in encouraging this type of response. The superiority of picture #2 seems to further substantiate Symonds' (105) finding that the presence of a character easily identifiable with the subject seems to facilitate projection.
CHAPTER VIII

DESIRE ANALYSIS: PART I—INTRODUCTION AND TECHNIQUE

Construction of Analysis Method

Greatest interest has been shown in the T.A.T. because of its promise in getting at certain phases of personality not adequately approached by older and more established devices. To date, however, this promise has been only partially realized primarily because as yet no adequate or widely satisfactory method of analysis has been adopted. To devise such a method of analysis is an extremely large task and probably requires the concerted energies and thought of many individuals. Eventually, out of such work and thought may arise a method suitable for general use.

However, before beginning the analysis of our experimental materials, it was necessary to devise some satisfactory means of analysis. Since the author, like Harrison (46), Rotter (83), and others was dissatisfied with Murray's suggested methods of analysis, this meant devising a more satisfactory procedure. For this purpose two sources of data were tapped:

1. A set of T.A.T. stories chosen at random and the autobiography of the same individual were taken from the files by the author's secretary for use in checking the degree to which any system we devised would work for these materials.

2. Approximately 100 T.A.T. stories were collected by requesting students in other classes to assist in our research by responding to as many of the T.A.T. pictures as they cared to and to submit these, unsigned, to the writer.
Thus, we acquired a considerable body of practice materials for our preliminary analyses.

Murray's method of analysis was discarded for three primary reasons:

1. It is based upon a theory of personality structure which itself is not as yet verified or commonly accepted.

2. It uses a nomenclature devised by its authors which is confusing, involved, not to say bizarre in places. In addition, this method introduces another interpretation in handling data since, when analysis is completed, it is necessary to interpret the Murray terms.

3. It uses a five point scale of judgment of the strength of each factor analyzed. The experience of other investigators (45, 47, 61, 83, 85) has shown this to be cumbersome, difficult and probably an unjustifiable refinement of analysis applied to a crude instrument.

Furthermore, this system introduces a second level of interpretation imposed upon a previous interpretation. It has seemed to us and to others that this introduced an undesirable source of error and created unnecessary difficulties of interpretation which made practical use awkward.

It was the writer's desire to find a method of analysis which would be consistent with well accepted psychological theory, as straightforward as practicable, which would be consistent with accepted clinical practice and which at the same time did as little violence to the whole picture of the personality as possible. Goals and the probable impossibility of completely harmonizing two mutually exclusive poles as "analysis" and
"wholeness" were clearly recognized. However, it was felt that between these extremes we might be able to construct an analytic method which would represent a workable compromise between the two.

At first we attempted an analysis of our practice materials in terms of the "feelings" which could be inferred in the central character. After some weeks of experimentation with this concept, however, it was dropped in favor of analysis in terms of "desires" which proved to be a more useful concept. We have used it here as it is defined below.

Examining the materials from a clinician's point of view, we asked "What factors is the clinician most interested in?" In answer to this query, it seemed to us he wished to know:

First --- What is the situation?
Second --- What are the desires of the individual, what is he trying to do? What goals is he attempting to reach?
Third --- Looking upon all behavior as adjustment, what are the "crisis" situations the individual is attempting to resolve?
Fourth --- What modes of action does he use in these adjustments? What are his methods of dealing with such "crises"?

Adopting this fairly straightforward delineation of the problem an attempt was made to analyze our materials for:

1. Themas: Our use of this word should not be confused with Murray's conception of a Thema as a "needs-press unit." Like other workers with T.A.T. (46) we have preferred to formulate our own definition. We mean by a thema in this research the shortest possible condensation of the story or incident which includes the major emphases or "plot".
2. Desires: We have adopted for purposes of this research English's (35) definition: "A tendency to action directed toward a not-present object or not realized condition."

3. Crisis: Warren (115) has defined the word as: "an unanticipated or novel combination of stimuli". We have used the word here in this sense to include two major types of such "unanticipated or novel combinations of stimuli" which are defined as follows:

a. **Thwarting situation** - This term we have used in the same sense as Shaffer (95) has employed it: "a circumstance in which the accustomed mechanisms of the individual are unable to satisfy an aroused motive." Shaffer further points out that there may be three general classes of factors which thwart human urges: an environmental obstacle, a personal defect or the blocking of a motive by conflict with an antagonistic motive. This last classification of conflict as a form of thwarting seems to us an unfortunate usage of the word. So classifying conflict obscures an important clinical and theoretical distinction. The thwarting situation defined as a motive blocked by an external obstacle or personal defect implies a situation in which the self is not divided but acts in more or less organized fashion to find a solution to the problem. Conflict,"
on the other hand, implies the self divided between two antagonistic motives. This it seems to us is an important distinction and one worth maintaining in clinical usage. We have, therefore, made a second class of "crisis" situations labeled

b. Conflict: by which term we mean: "Conflict is the state of a person wherein he is motivated in opposed or contradictory directions or wherein one desire or wish is thwarted or blocked by another." English (35)

4. Action outcomes: By this term we mean "the activity or behavior by which the individual attempts to adjust to a "crisis" situation.

It will at once be apparent, after consideration of the very large number of words in our culture to express human desires or motivations, that in order to achieve any sort of agreement upon what is being expressed by a particular individual, it is necessary drastically to limit the use of descriptive terms. Realizing this need, we attempted to compile a list of words expressive of the most common desires for use in our analysis. In such standardization of responses the question arises at once as to how far one shall go in consolidation. If consolidation is carried too far it results in such generalized categories as to be of little use to the clinician. In the construction of our list then, it was necessary to strike a compromise position which would not prove too general on the one hand or result in meaningless confusion of the other. The following technique for construction of our desires guide was
finally decided upon.

Desires List -- From Murray's Explorations in Personality (75) we extracted from his "Variables of Personality" all terms expressive of desire. To this list was added a number of others acquired in the practice analysis of some fifty T.A.T. stories. The several hundred desires terms collected in this way were next placed upon cards and an attempt was made to consolidate them. A tentative list of 35 desires was thus acquired which were tested by the author and an assistant, each checking the desires against the analysis of 76 practice T.A.T. stories to determine the adequacy of the list. In only three stories were cases found which could not be described in terms of the consolidated list. To care for these cases two additions were made to the list in order to accommodate the new factors. The two additions were made after the first 26 stories had been analyzed. In the next fifty, no additions appeared necessary and the list was considered ready for use.

When a list satisfactory for our purposes had been arrived at, each description was carefully defined to cover a number of possible overlappings, and it became necessary to place certain limitations upon the use of some categories by forcing certain choices. We therefore prohibited the use of some categories together. By such a process of trial, elimination and revision over a four month period a usable list was finally constructed. This list contained 40 desires categories and appears in Appendix D.

We recognize that this instrument is extremely rough and represents but a bare beginning of construction of an efficient analysis technique. It has served its purpose in this investigation but there are many possibilities here for further research. While we should have liked to have
examined this problem further it has been necessary to realize the limitations imposed by a single dissertation and to move on to an examination of our primary question. It is hoped the analysis technique we have devised may stimulate further research on this subject.

**Action Outcomes List**

It will be recalled that in the definition of our "crisis" situation we used two major categories of "crisis": 1. Conflict and 2. Thwarting. In devising our action outcomes list each of these situations was analyzed to determine possible modes of action by which the individual might adjust to these. With respect to conflict, it seemed to us that action might be represented by either of two possibilities:

a. That the individual in a conflict situation might choose one or the other of the alternatives or

b. He might make no choice at all and remain in a state of conflict.

With respect to our "thwarting" situation we analyzed the common representation of the thwarting situation as:

```
Motivation   Goal
```

in terms of all possible ways in which action might be directed. It was considered that in such a situation action to resolve conflict might be directed at the motivation, the barrier, the goal or in no action whatever.

Using this plan of analysis, a tentative list of action outcomes of "crisis" situations were devised. This was then carefully checked against 75 T.A.T. stories first by the author and then by an assistant. Several
minor changes appeared necessary. These were made and the list was checked again for adequacy on a group of 50. The list finally arrived at appears in Appendix B.

Method of Analysis

Having completed construction of the necessary analysis lists, analysis of the experimental materials was begun.

It will be recalled from Chapter V that the experimental materials consisted of 46 folders each containing twenty stories written by a subject identified by a code number and 46 folders each containing a rather complete autobiography similarly indicated by code number. In all, this amounted to approximately 920 stories and 1400 pages of autobiographical material. In this section of the experiment the author was unaware of the identity of any writer.

The first step in analysis was the preparation of an analysis sheet. After some trial - and - error the form of analysis sheets shown in Appendices G and H was used. These sheets were used for both T.A.T. and autobiography analyses.

T.A.T. Analyses

In analyzing the T.A.T. stories each story was carefully analyzed as follows:

1. The picture around which the story was written was set up in front of the analyst. This served to clarify thinking and give more meaning to the analysis.

2. The story was first read through at least once.

3. The story was next condensed to its shortest form or "theme" and recorded in the appropriate column of the analysis sheet.
4. Identification of the writer with one of the characters in the story was determined and indicated by encircling the identified person in the theme. It is thought that in the writing of a T.A.T. story the subject usually identifies himself with one or more characters and utilizes this character in his stories for purposes of expression of his own feelings, attitudes, etc. It is therefore important to determine identification to get the proper approach to the story under analysis. This identified person is most likely to be someone similar to the author of the story as to age, sex, etc., but may vary with the needs of the author as he expresses himself. Identification is usually quite clear from the treatment given the story. The analyst reading the story senses the sympathy of the writer toward the various figures. While errors in identification may certainly occur, they do not appear to be great. A simple check with several of our judges showed disagreement as to identification in less than 3% of the cases.

5. Having determined the identification in the story the analyst proceeded next to the desires analysis. Interpreting the events described from the point of view of the identified character, he asked, "What are the major desires of the character as depicted? What is this person trying to accomplish? What are his goals?" Referring to the desires list previously described, he then interpreted these desires as closely as possible
in terms of the desires list and recorded these on the analysis sheet.

6. Next he considered the "crisis" situation. In this experiment a "crisis" was analyzed in one of three ways:

a. A conflict of two or more incompatible desires demanding a choice. For example, a conflict between wanting to marry someone and a desire to please parents who object to such a marriage would be recorded as:

*married to -------- / *adm wishes

b. A thwarting due to the obstruction of one or more desires by some form of barrier or restraint of the satisfaction of those desires. For example: a conflict of a man in need and without a job might be expressed:

*means to live (financial) / f no job

The f after the barrier here is used to distinguish this situation from a "choice" situation and stands for "frustration".

c. A "no frustration" situation in which a strongly expressed desire was satisfied. For example, a description of someone desiring praise and acclaim and getting it might be expressed simply as:

Respect ---- no f

From the reading and previous analysis, the analyst of the story determined the nature of the crisis met, if any, in satisfying the desires apparent in the identified character

*These are code words referring to the desires categories of our desires list. See appendix D.
of the story. These were recorded on the analysis sheet as described just above.

7. With the "crisis" situation recorded the author turned to the next logical question—How was this "crisis", if any, resolved? The resolution of the "crisis" was examined carefully and expressed in terms of the action outcomes table previously described. These action outcomes were also recorded on the analysis sheet according to the prescribed key. These could be recorded under any one of six major headings:

*1. No frustration
2. Choice of two or more incompatible desires
3. As action directed at some aspect of the thwarting situation
4. As involving no action
5. As being resolved externally
6. Or as insufficient data for decision

5. The recording of the action outcome completed a story analysis. A line was drawn across the page and the next story treated in the same manner. A set of twenty T.A.T. stories usually took about three to four hours for analysis.

**Analysis of Autobiography**

It will be recalled that autobiographical materials were submitted as separate projects on varying topics. Before beginning analysis these separate projects were marked in colored pencil from one to seven respectively. No problem of identification was presented as all materials were interpreted in terms of the author of the autobiography.

*See Appendix E for more specific breakdown.*
In analysis of the autobiographical materials the analyst read to the conclusion of a single incident. At this point he drew a line in the margin and marked the incident by letter. The emphasis upon "incidents" in the instructions for writing the autobiographical projects greatly facilitated this method of approach.

Having thus separated an incident for analysis by number of the project and letter to describe the incident, analysis was made exactly as described above for the T.A.T. stories. This procedure was continued until all of the autobiographical material was completed. Each autobiographical analysis took between six and nine hours for completion.

**Discussion of Techniques and Instruments**

The method of analysis described and used in this experiment is based upon Murray's (71) original analysis scheme. Like the original, it attempts to make analysis of the needs (Murray's term) or desires (our term) as the fundamental motivational drives of the individual. What has been called here "crisis" is called by Murray "a need-press unit" with certain minor variations. Each method has attempted to analyze the motivational drives of the individual as they came in conflict with the demands of the environment. Murray has described these environmental forces by the word "press" and a "need-press unit" thus becomes a description of the individual in interaction with his environment. We have previously discussed our classification which attempts to account for this situation but adds further the possibility of the individual in conflict between incompatible or opposing motives.

The method of analysis suggested here has attempted to describe "crisis" in usual rather than in completely new terms. While we are not attempting here to judge the validity of Murray's techniques, it does
seem that for practical clinical purposes and for ease of understanding and usage much is to be gained by the utilization of terms and techniques as familiar as possible to the widest number of competent workers rather than expression of meanings only in terms of a particular school of thought.

One other major change has been instituted in our method of analysis. In the original Murray version, each "need" and "press" was rated on a five-point scale. This was a further complication and further increased the difficulties already inherent in the original method. A "need" is an interpretation. A "press" is a second and a "need-press" unit is still a third. If now both "need" and "press" are subjected to further interpretation to rate these on a five-point scale, it becomes apparent at once that this interpretation must be highly subject to variation as it is dependent upon three preceding interpretations, any one or all of which may be inaccurate. Like Masserman (62), Balken (12), Harrison (46), and Sanford (84), we have discarded this step in analysis in favor of the simpler item count.

The method of analysis we have proposed and as carried out in this research is much too time-consuming for practical purposes. However, it is possible greatly to speed analysis by dropping certain phases such as the transcription of themes. For practical purposes this is unnecessary and involves a great deal of time and effort which might well be eliminated with little loss to the effectiveness of results. For research purposes, our method seems to have value in arriving at more objective approaches to very subjective materials. It contains a number of errors and requires a great deal more experimentation. We have pointed out below some of the major criticisms that have occurred to us in the course
of a very extensive use of the instrument and some possible suggestions for its improvement.

One criticism of this method of analysis is the fact that it leads, as we have used it here, to too great attention to detail and a subsequent lack of some of the broader and more general aspects which are important in diagnosis. However, for practical diagnostic purposes it is not necessary to become involved in so detailed an analysis as we have used. By the use of certain shortcuts and greater attention to the over-all picture, analysis can be speeded up.

The second criticism of our technique is one that we have raised with respect to Murray’s analysis. That is, the fact that interpretation piled upon interpretation is likely to result in increasing error the further one gets from the original material. Thus, in our analysis, temas, desires, “crises”, and action outcomes, each represent an interpretational analysis. Furthermore, to some extent these are interdependent. For example, the desires are dependent upon the thema choice, the "crises" in turn are dependent upon the desires analyzed, and the action outcome is dependent upon the representation of the "crisis". It is quite likely that analysis would show that the further one gets from the original material, the lower the validity would be. Although this problem might be solved by making each analysis directly from the original material, it seems likely that unless this were done quite separately, previous interpretations would still have an effect. This raises again the fundamental problem of where to draw the line in analysis between scientific accuracy in our present stages of thinking and the maintenance of the whole picture we are interested in maintaining.
Discussion of Desires List

In the course of our use of this desires list for the analysis of the materials in this experiment certain criticisms of the original list and certain recommendations for change have appeared.

One of the biggest difficulties in the use of such a list seems possible of remedy only through extensive use and continual change and re-checking. That is the difficulty of exactly categorizing the desires which are being analyzed. A considerable amount of overlap in categories seems inevitable. To some extent this lack of complete accuracy in classifying material seems due to the fact that we are dealing with a very complex material. It is also to be recognized that the particular biases of the analyst must necessarily have a bearing upon the categories chosen to describe a particular piece of written work. In spite of these difficulties, however, the list we have devised appears to have certain very considerable possibilities for analysis of this sort of material.

In the course of our use of the desires analysis, it became clear that certain materials might well be eliminated or consolidated in our list. Primarily, these are categories which, in the final analysis, showed very little use and which were closely allied to certain other categories. It seems probable, for example, that it would be quite possible to get along without the categories, avoid pain, avoid illness, and avoid death. These three categories were used very little in the T.A.T. and even less in the autobiography. It would seem that no great loss to the use of the list with a group such as ours would follow if all three of these were eliminated and the category, to be safe, were used to cover the three. With other groups, however, it might prove desirable to retain them as separate categories.
It further seems likely that the two categories, to belong and to be with, might well be consolidated and analyzed in the same grouping as the category, relations with. These categories are highly similar and it does not seem that this consolidation would do violence to understanding.

It seems possible to eliminate two other categories for this type of group by consolidation with already existing categories also. The category protect might well be consolidated with the category care for and the category death might well be consolidated with the category to avoid struggle.

On the other side of the picture our experience has shown that certain expansions and additions might well be justified to create a more sensitive instrument. For example, the category to be married might well be divided into two categories, one, to be married, and the other, the desire for home, family, etc., and all that these imply.

Other categories that could well be added to the original list are as follows: 1. order, habit, belief. This category might be used for those situations in which the individual seems to show a desire to continue comfortable habits or beliefs in spite of certain external forces which tend to disturb these ordered habits. 2. A desire to grow up or to be mature seems a likely category particularly for the child or adolescent. 3. A desire to attract attention beyond the desire simply to be attractive, would seem to be a useful addition. 4. The category to resemble would seem to be useful to care for those situations where an individual seems to be very much affected by some particular person with whom he has come in contact. 5. Finally, our experience has shown that perhaps a category entitled to indulge self in might well contribute to the greater sensitivity of the original list.
"Crisis" Analysis

Although our "crisis" analysis contributes to understanding of the individual's problems, conflicts and frustrations, it does not lend itself well to any form of statistical analysis we have yet been able to apply. Perhaps further work on this aspect may result in more practicable techniques which would be both clinically and experimentally useful.

Action Outcome

The action outcomes list which we have prepared for use in this experiment is very definitely a starting point. A very great deal of further work may be necessary before it is useful beyond the confines of this investigation.

In the course of analysis, although a very considerable number of desires may occur in a single story, the number of actions represented in that story are usually no more than one or two. With the number of cases that we have used in this experiment, it means that the use of our action outcomes list is far less than the use of our desires list. With this limited use, we have not been able to observe closely the strengths and weaknesses of the list. One possibility does occur, however, and that is that it may be found with further work that a reorganization of these action outcomes in terms of an attack-withdrawal dichotomy might be an improvement. Such a classification would very greatly simplify the list and emphasize the major generalized methods by which an individual attempted to resolve his "crises".
CHAPTER IX

DESIGNS ANALYSIS PART II - VALIDITY AND CONGRUITY OF INTERPRETATION

This chapter is devoted to an examination of the validity and congruity of the interpretations in analysis described in the previous chapter. The question of the integrity of interpretation and analysis of case history, projective materials and other forms of personal documents is extremely important not only to this research but to research in the entire field of the use of subjective materials. To a very considerable degree, it is this problem of satisfactorily determining the statistical accuracy of such materials that has caused them to be regarded skeptically for scientific use for a long time. There is no doubt that personal documents contain keys to many important psychological problems. Unfortunately, they do not lend themselves well to the usual statistical practices and are likely to cause the investigator to feel uncomfortable in his techniques through inability to express his results in mathematically defensible terms.

To be able to state information in succinct and exact mathematical terms is no doubt the ultimate goal of scientific description but somewhere there must be an origin to such description and it is likely that in the original employment of new materials the use of statistics must necessarily be as crude as the materials in use. It is too easy to be misled in dealing with crude instruments into expression of results in statistical terms of greater refinement than the original data warrants. Gradually, with further work in a new technique and as progress toward greater refinement is made, it may become possible to utilize statistical devices of greater accuracy and complication.
This is very largely the situation with respect to the use of personal documents and projective devices at present. Much is assumed but little has as yet been satisfactorily demonstrated in familiar statistical language. It is probable, that with increasing interest in such materials ways and means of more adequate description will yet be discovered.

The complex and non-standardized nature of "blue sky" responses in personal documents makes establishment of validity and congruity difficult but by no means impossible. Before much credence can be placed in results from such materials these fundamental issues must be clarified.

**Congruity of Desires Analysis**

We have used the terms congruity and congruence in this chapter because we feel they are more accurate terms to describe these relationships than the more familiar "reliability". See Chapter III for discussion of this point.

In the determination of the congruence of interpretation from such materials as we have employed in this experiment two major problems arise:

1. To what extent can other persons than the author arrive at the same results in analysis (external congruence)?
2. To what extent does repeated analysis by the author after a period of time give the same results (self congruence)?

We have examined these questions with reference to the T.A.T. analyses of our autobiographical materials.

**External Congruity**

Before attempting any check upon congruity of these analyses it was necessary for our judges to be given a period of training in the technique
of analysis and the use of the desires list. Several pages of instructions were made up to guide the judges in their analyses (see Appendix F). When this had been carefully studied they were asked to do ten analyses with the author during which various questions regarding techniques and meanings were clarified and judges were introduced "into the swing of things". When this period of training was completed judges took from the file a folder of T.A.T. stories, without previous knowledge of the contents of the folder or of the identity of the author, for use in analysis.

The three judges used in this phase of the experiment were graduate students in psychology who volunteered assistance for the task. After his period of training, each judge took his folder of materials to work on them at his leisure. As they were returned they were checked against the analyses made by the author. Each item which agreed with the author's copy was checked and the per cent of agreement was expressed in two ways:

1. Agreement of the judge against the author as standard was checked and

2. Agreement of the author against the judge as standard was checked.

These results appear in Table IV.

Exactly the same procedure was employed for a second group of graduate student judges who worked with analysis of the autobiographical materials. The results of this investigation also appear in Table IV.

It will be noted from this table that somewhat more agreement with the author was obtained in the analysis of T.A.T. stories than in the analysis of autobiographical materials. It seems likely that the reason for this lies in the fact that the author had considerably more experience with case history materials than did the judges and tended to see
TABLE IV

PER CENT OF AGREEMENT BETWEEN AUTHOR ANALYSES
AND THOSE OF TRAINED JUDGES FOR T.A.T.
STORIES AND AUTOBIOGRAPHICAL MATERIALS

| Judge Set No. | T.A.T. Stories | | | Autobiography |
|---------------|----------------|----------------|----------------|
|               | % agreement with author | % agreement with judge | % agreement with author | % agreement with judge |
| 1             | 55%             | 53%             | 49.5%          | 46.2%           |
| 2             | 76%             | 67%             | 51.2%          | 44.9%           |
| 3             | 50%             | 51%             | 54.9%          | 57.8%           |
| Totaled cases | 60%             | 57%             | 52.1%          | 50.0%           |

* % agreement with author was determined by using agreement as numerator and total number of authors' items as denominator. The same agreement figure was used in calculating agreement with judge but the denominator was changed to the total number of items selected by the judge in his analysis.

# Separate judges were used for T.A.T. and autobiographical analyses. This figure therefore designates T.A.T. judge #1 and Autobiography judge #1.
somewhat more than the judges in analysis. Furthermore, with a background of experience in analysis of the T.A.T. stories before approaching the autobiographical materials, the author came to clarify and resolve the rather loose definitions of the desires list and to fall into the use of certain specific criteria before assigning a particular desire to an autobiographical incident. Thus, the author’s analysis of autobiography tended to include fewer desires per incident and hence a smaller opportunity for agreement. In the autobiographical study it will be noted that in every case the agreement with judge is less than agreement with author. This is due to the fact that judges tended to use a few more categories than the author in judging incidents probably because they did not make as sharp distinctions between categories as did the author.

Perhaps another explanation for the lesser results on autobiography lies in the fact that the author, much more than his judges, tended to interpret particular incidents of the autobiography in terms of all that had gone before in the material as well as the current incident. For example, an incident in which the writer states “Nobody ever seemed to be home at our house” might be overlooked by the judge as important in the incident because he is responding to this incident alone. The author, interpreting this same statement in terms of previous information in the autobiography, might consider it highly important and score it as a desire. This difficulty did not appear in the T.A.T. materials as the judgment there was necessarily confined to the story alone without reference to any preceding material.

One of the judges of the T.A.T. materials came remarkable close to the author’s analysis. This person had done a number of analyses previously in helping to work out the desires list and had thus had much more
opportunity than the other judges to become familiar with the materials, the point of view etc. This single case would seem to suggest that with a greatly expanded period of training, judgments of independent analysts could be brought to a fairly satisfactory agreement.

Irrespective of these variations, however, it must be said that these figures are, on the whole, disappointingly low.

**Self Congruity**

Having determined the external congruity of interpretation from our instrument our next problem was to determine the amount of agreement obtained in two distinct trials widely separated in time made by the author himself.

The original analyses of T.A.T. stories were made in the Summer of 1944. For the next six months or more the author was engaged in analyzing the autobiographical materials. Three months after the completion of the autobiographical analyses these reliability checks were attempted. In the Spring of 1945 the author reanalyzed five sets of T.A.T. stories and three sets of autobiographical materials. The results of this reliability check appear in Table 7.

A comparison of this table with Table IV indicates an appreciably greater self agreement than external agreement. This may be due to a number of factors among which the following seem particularly important:

1. The greater familiarity of the author with the analysis list growing out of greater experience in the making of the list and in a greater experience with its actual use.

2. The expected greater consistency within a single personality is true between two personalities.

3. The development of certain set patterns of response to
## TABLE V

**PER CENT OF AGREEMENT BETWEEN TWO INDEPENDENT AUTHOR ANALYSES SIX MONTHS APART FOR T.A.T. STORIES AND AUTOBIOGRAPHICAL MATERIALS**

<table>
<thead>
<tr>
<th>Case No.</th>
<th>T.A.T. Stories</th>
<th>Autobiography</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% agreement with original</td>
<td>% agreement with new</td>
</tr>
<tr>
<td>1</td>
<td>65.3%</td>
<td>62.0%</td>
</tr>
<tr>
<td>2</td>
<td>61.2%</td>
<td>60.3%</td>
</tr>
<tr>
<td>3</td>
<td>70.0%</td>
<td>61.4%</td>
</tr>
<tr>
<td>4</td>
<td>73.9%</td>
<td>68.9%</td>
</tr>
<tr>
<td>5</td>
<td>74.6%</td>
<td>74.6%</td>
</tr>
<tr>
<td>Totaled cases</td>
<td>68.8%</td>
<td>65.7%</td>
</tr>
</tbody>
</table>

*agreements determined as in Table IV*
types of situations as the author proceeded with the analyses. Through a process of clarification and crystallization of response particular situations come to be more and more interpreted in terms of a particular pattern of desires.

Since the percentages of agreement in the two checks are so close, it follows that the total number of desires indicated in the two analyses must be fairly constant. The difference in analysis must then be due to differences in the use of particular categories of the desires list.

Again, as in our external congruity analysis these figures do not approach as high a degree of congruence as we should like or as is usually expected of reliability - estimates.

**Discussion of Congruity**

While we should certainly like to see congruity with such materials as these as high as are usually found in comparison of the more orthodox materials like tests, questionnaires, rating scales etc., it is necessary to give consideration to certain variables in these materials which are not so difficult to surmount in work with the more orthodox instruments. It appears likely as Allport (6), Cartwright & French (27) and others have suggested that in dealing with projective materials we must avoid regarding reliability in the usual sense (at least, at this stage of development) as the "sine qua non" of our acceptance of findings.

It is clear that we are but in the earliest and also crudest phases of the development of new instruments. Many of these materials must necessarily be extremely awkward in their original forms.

In considering the validation of such instruments it seems likely that we must beware casting aside a valuable approach which does not meet
usual tests. It is even possible that it may be necessary to devise new forms of mathematical expression to describe such materials adequately. In any event there is danger of being misled in applying highly refined statistical analyses to crude materials which in their earliest forms do not lend themselves to such handling. Orthodox testing instruments lend themselves well to expression in mathematical terms but projective materials certainly do not at this stage of development.

Still another difficulty in determining reliability as ordinarily defined is the fact that projective devices are subject to a great deal of interpretation. Such interpretation of course is subject to the orientation, organization and prejudices of the analyst. These are difficult things to express or to allow for.

Some of the specific factors which possibly account for the low congruities in the use of the specific instrument we have devised for this experiment seems to be as follows:

1. The character of the field of investigation. Although we attempted to refine our instrument in first designing it and in later revisions, it is clear that we are attempting to deal with factors most difficult of exact analysis.

2. The non-discrete character of items. It will be recalled that our list represents a compromise between a very few descriptions and a very large number of descriptions of human desires. It will further be recalled that each item refers to a group rather than a single variable. Inasmuch as these groups shade into each other almost imperceptible discreteness of
items becomes extremely difficult to achieve. A further difficulty in this connection is the handling of negative items. For example, to avoid death might be indicated by one judge and to be safe indicated by another. These would appear in the statistical analysis as a disagreement although it is quite obvious they are fundamentally similar.

3. The semantic difficulty. Still another source of disagreement lies in the differences of interpretation of the words used in the list. Thus, "restriction" may be broadly interpreted by one analyst and rigidly by another.

4. Mind-set of the analyst. The mind-set and particular prejudices and experience of the analyst in materials open to such uncontrolled analysis create differences of interpretation.

5. Differences in depth of interpretation. Another factor over which it is most difficult to exert control is the degree to which the interpreter attempts to probe the fundamental processes of the subject. The depth and adequacy of this penetration of motives is likely to be dependent on the clinical insight, experience and empathy possessed by the analyst.

6. The aspect to which response is made. It is not always clear in such uncontrolled materials what the primary factors are. Clarity of expression, style and frankness of the writer enter the picture. In some
cases it is quite possible for two analysts approaching the same materials to respond to different aspects of the materials.

7. Knowledge of previous material. This factor is most obvious with respect to the autobiographical materials where separate analysts may vary considerably in the degree to which present incidents are interpreted in the light of preceding information.

In view of these facts it seems likely that a large degree of congruence of interpretation cannot be expected at this stage of the development of techniques nor does it seem possible to insist upon the usual standards of statistical agreement in view of the frailties of human judgment upon which such techniques depend. Much more important than congruence of interpretation at this stage of development is the degree of validity involved in judgment.

Validity of Analyses

In a recent article, Harrison and Rotter (45) have examined this question of "reliability" and validity of the T.A.T. They point out that "the establishment of validity generally presupposes reliability in psychological tests. However, the usual psychometric conception of the reliability or consistency of the measuring instrument cannot hold for clinical projective techniques based on entirely different principles from the typical psychometric tests." In their experiment they attempted to rate officer candidates as to emotional suitability from the T.A.T. on a five point scale. With different judges they got complete agreements in 43% of the cases and complete disagreement in zero per cent. These findings they interpret as demonstrating that it is possible to get good inter-personal
ratings on the emotional suitability of officer candidates from T.A.T. stories.

In chapter III we have briefly reported the results of an experiment by Cartwright & French (27) on the validity of analyses of life history materials. It will be recalled that in that experiment the authors concluded it was possible to have a greater validity of interpretation than "reliability". Each of the authors had access to a wealth of material on a single subject and discovered a fairly low agreement between their separate interpretations. However, when each examined the other's work in the light of his interpretation and evidence for his statements, they found each had been primarily correct in his analysis. They felt further, that the low "reliability" of their observations was due to the fact that each had approached the materials with a different mind set and had emphasized different aspects of the problem.

It was felt that in view of the findings of this experiment somewhat similar factors might be at the root of the low degree of congruity found in our analyses. We decided therefore to check the validity aspect of our analyses against the judgment of well qualified judges.

Plan of Validity Experiment

Whereas in the congruity study of interpretation from our materials we had asked judges to make separate analyses and compared these with analyses of the author, we now planned to ask qualified persons trimply to judge the soundness of our interpretations.

To do this we first picked at random from our file a folder of T.A.T. stories and a folder of autobiographical materials. Secondly, we repeated our analysis of these materials and included these results in the self congruity study of the previous section of this paper. Thus we arrived at
a set of T.A.T. stories and a set of autobiographical materials twice analyzed by the author. From the two analysis sheets of each set of materials we then extracted all the desires indicated in either analysis and placed these on a typewritten sheet of instructions to the judge. (see Appendix I).

Each judge was then supplied the original materials from which the analysis was made, a set of T.A.T. pictures, if the analysis was for the T.A.T., a copy of our desires list and the check list of desires for the materials compiled as above. The judge was then asked to study the materials carefully and, identifying himself with the author of the autobiography, or in the case of T.A.T. stories with the character indicated, to decide whether each of the desires ascribed to that person was "a reasonable interpretation of the character's desires in the materials". The judges were unaware of either the purpose of this experiment or of whose work they were checking.

Judges were carefully chosen for a high degree of competence and insight into behavior.

The judging personnel was as follows:

Judge #1 - Professor of Psychology
Judge #2 - The author's wife
Judge #3 - Professor of Education and Director of the Study Skills Laboratory
Judge #4 - Professor of Child and Clinical Psychology
Judge #5 - Instructor in Psychology
Judge #6 - Instructor in Psychology and Psychologist at the Psychopathic Clinic

When each judge had gone through the materials and worked each item
as to whether he agreed or disagreed as to its validity, the author met with the judge to go over the list. At this sitting, the author made a statement somewhat as follows:

"I note in your markings a number of instances where you have disagreed with the interpretations made in the original analysis. I think you will agree that in working with materials of this sort it is sometimes possible to misunderstand the meaning of the material or to overlook points in the course of your consideration.

"The analysis you have been working on is one done by me. I know it contains errors but I am not sure where they are. It is also possible that I may have seen some things in making the analysis that you did not. Therefore, I am going to take each of these items on which you have disagreed with me and for each of them I will tell you on what grounds that particular judgment was made. When I have finished I will ask you, for each of these on which we disagree, to decide whether on the basis of the evidence I have presented you are willing to change your first decision. If you are willing to change mark a "C" next to your original "D", if you are in doubt mark a question mark and if you still feel you cannot agree with the interpretation mark it "O". In other words, I am going to present the evidence for my marking as I see it and you are going to judge whether in the light of that evidence you now wish to change your original marking."

The author then presented for each item the evidence he saw at the time from a quick rereading of the section and the judge made his decision accordingly. The results of this check experiment are presented in Tables VI and VII.
TABLE VI

AGREEMENT OF JUDGES WITH AUTHOR'S ANALYSES BEFORE AND
AFTER PRESENTATION OF EVIDENCE FOR AUTHOR'S
JUDGMENT ON TWENTY T.A.T. STORIES

<table>
<thead>
<tr>
<th>Judge #</th>
<th>No. items disagree</th>
<th>No. items agree</th>
<th>% agreement</th>
<th>No. items changed</th>
<th>No. items questioned</th>
<th>No. items disagree</th>
<th>% agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>33</td>
<td>110</td>
<td>76.9%</td>
<td>12</td>
<td>3</td>
<td>18</td>
<td>85.3%</td>
</tr>
<tr>
<td>2</td>
<td>22</td>
<td>121</td>
<td>84.6%</td>
<td>10</td>
<td>4</td>
<td>8</td>
<td>91.6%</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>138</td>
<td>96.5%</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>96.5%</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>369</td>
<td>86.0%</td>
<td>22</td>
<td>8</td>
<td>30</td>
<td>91.3%</td>
</tr>
</tbody>
</table>
TABLE VII

AGREEMENT OF JUDGES WITH AUTHOR'S ANALYSES BEFORE AND AFTER PRESENTATION OF EVIDENCE FOR AUTHOR'S JUDGMENT ON A SET OF AUTOBIOGRAPHICAL MATERIALS

<table>
<thead>
<tr>
<th>Judge #</th>
<th>No. items Disagree</th>
<th>No. items agree</th>
<th>% agreement</th>
<th>No. items changed</th>
<th>No. items questioned</th>
<th>No. items disagree</th>
<th>% agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13</td>
<td>174</td>
<td>93.0%</td>
<td>7</td>
<td>1</td>
<td>5</td>
<td>96.8%</td>
</tr>
<tr>
<td>2</td>
<td>30*</td>
<td>157</td>
<td>83.9%</td>
<td>24*</td>
<td>3</td>
<td>3</td>
<td>96.8%</td>
</tr>
<tr>
<td>3</td>
<td>32*</td>
<td>155</td>
<td>82.8%</td>
<td>25*</td>
<td>3</td>
<td>3</td>
<td>96.7%</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>486</td>
<td>86.6%</td>
<td>58</td>
<td>7</td>
<td>11</td>
<td>96.7%</td>
</tr>
</tbody>
</table>

* These large figures for judges 2 & 3 are due to misunderstanding of the original instructions: In case of Judge #2 a line drawn under certain words for the author's information only was interpreted as indicating the most important category. In the case of Judge #3 the misunderstanding was due to failure to take preceding information into account in making judgments.
Results of Validity Check

Examination of Tables VI and VII reveals an apparently greater general agreement with the author's analysis on the autobiographical materials than is true for the T.A.T. materials. Furthermore, the variability of judgment with respect to the autobiographical analyses is practically non-existent in terms of the final decisions.

The judges showed a greater willingness to reconsider judgments on the autobiographical materials also.

Three possible explanations for this present themselves:

1. The autobiographical analyses were more exact since the author had had considerable experience in making analyses by the time the autobiographies were considered.

2. The evidence for a particular analysis choice was more readily available and easier seen in autobiography than in T.A.T. This seems the most likely explanation.

3. The judges for the autobiographical materials were more lenient or more subject to the author's arguments for his choices. This is possible but seems most unlikely in view of the personalities employed for the judging. Both groups of judges, it is felt were "tough minded" and objective.

It is further interesting that when the specific items of objection are examined (Table VIII) these judges are far from unanimity in deciding what is a justifiable interpretation and what is not. In only three cases on T.A.T. and two on autobiography did all raise objection to the same item. It seems clear that the judges themselves were approaching these materials with differing mind sets and differing interpretations.
### TABLE VIII

**AGREEMENT OF JUDGES IN MARKING ITEMS ON WHICH THEY DISAGREE WITH THE AUTHOR’S ANALYSIS FOR AUTOBIOGRAPHICAL AND T.A.T. ANALYSES**

<table>
<thead>
<tr>
<th></th>
<th>No. of items in T.A.T. analysis</th>
<th>No. of items in Autobiography analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>One judge disagrees with analysis</td>
<td>23</td>
<td>41</td>
</tr>
<tr>
<td>Two judges disagree with analysis</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Three judges disagree with analysis</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>
In any event, even before the author had opportunity to state the evidence for his choices in analysis, a very considerable degree of agreement was obtained.

Following opportunity to present the evidence for the author's choices, the judges showed even greater shift toward agreement. Discussion of this point with our judges brought to light the following possible reasons for this shift to greater agreement after the presentation of evidence:

1. Misinterpretation of the Desires List. The author was far more familiar with this list and its use than were his judges. Some items of the list were therefore interpreted by the judges in a sense different from that intended by the author. With opportunity for clarification these differences tended to dissolve.

2. The semantic difficulty. With such materials as these it is inevitable that certain semantic errors occur. Since different words, both in the data and the desires list, had different meanings or shades of meaning to both judge and author certain divisions of opinion were bound to occur. With opportunity to air these differences essential agreement sometimes appeared where originally there had been disagreement.

3. Differences of approach to an interpretation. In some cases original disagreements seemed due to the approach taken to a particular incident or the depth of interpretation made. For example, the author might interpret an incident in terms of the way a child might
be expected to feel about being punished by his parent whereas the judge interpreted the material from the standpoint entirely of what was said concerning the child's feelings. Or this situation might be reversed. In other words, differences sometimes occurred due to strict adherence to the situation described on the one hand and interpretation in terms of clinical experience on the other.

4. Critical sentences or phrases overlooked. Some differences occurred due to the effect of not seeing in the reading of the material certain important aspects. Incidentally, this occurred in both directions. In several instances, the judge was able to point out significant sentences or phrases which made the author unwilling to defend his own item. This occurred in the case of three items particularly.

5. Opportunity for clarification of thinking through verbal expression: This seemed a most significant reason for change. As the two individuals concerned talked over the incident, pointed out materials and came to express points of view a greater similarity of thinking was almost bound to occur.

6. In autobiography: Interpretation in terms of previous information.

In the autobiographical materials it frequently occurred that differences were due to the judge's attempt to stay very close to the particular incident analyzed and to regard it out of its total context. The
author, on the other hand, more often interpreted materials as he went further into an autobiography in terms of all material he had previously read as well as the present incident. In some cases, opportunity for discussion resulted in the judge changing his original decision and in some cases not.

**Discussion and Conclusions**

It seems clear that the consideration of congruence and validity of interpretation from projective and personal document materials must be approached differently from the usual procedures applicable in psychometrics. Such concepts apparently cannot be lifted bodily from one type of material and applied to another. The paradox of a validity greater than "reliability" is sufficient indication of that. It is probable that such a paradox only exists because of our attempts to transfer statistical concepts from a field in which they have applied to a field in which they do not. Perhaps it is necessary to speak in referring to such materials, of agreements or congruence rather than reliability and validity until such a time as more exact statistical techniques and description become available.

The difficulties in working with projective materials are very great. By the very individual character of the materials they do not lend themselves well to grouping. Furthermore, the fact that they depend so greatly on interpretation introduces still another complex and highly variable characteristic. It is probable that no unit one could devise at present would be standard in value even with the same individual to say nothing of different individuals.

With respect to this experiment, at least, agreement between external analysts is about 50% to 60% and agreement of an analyst with himself
is only 63% to 68%, when an attempt is made to duplicate an analysis choosing interpretation from a list of forty. This does not mean, however, that the factors observed do not exist. In fact, agreement of outside judges is far greater when they are asked to judge the reasonableness of the analyst's judgment than when they attempt to duplicate that judgment.

The following conclusions therefore seem justified with such materials as we have employed:

1. That agreement of two judges making separate analyses is only fair. In this experiment about 60 percent for T.A.T. and 43 percent for autobiography.

2. That agreement of the analyst with himself, although greater than for separate judges is likewise not high. In this experiment, about 68 percent for T.A.T. and 63 percent for autobiography.

3. That judgments of the accuracy of the analysts' responses without explanation are fairly high. In this experiment about 86 percent for T.A.T. and about 86 percent for autobiography.

4. That when opportunity is granted the analyst to present the evidence for his choices of response, judgments of the accuracy of his analysis rise very high. In this experiment about 91 percent for T.A.T. analyses and about 96 percent for autobiography.

5. That it is possible for an analyst to be essentially accurate in his analyses, as shown by the
judgment of qualified checkers, even though blind analyses of others do not agree closely with his findings.

6. That it is probably inaccurate and confusing to attempt to apply the usual concepts of reliability and validity of such materials until meanings and techniques are better clarified and refined.
CHAPTER X

DESIRE ANALYSIS: PART III - RESULTS AND CONCLUSIONS

In chapter VII we were concerned with the degree to which T.A.T. interpretation could be matched against autobiographies. In chapter VII we attempted to estimate the degree to which actual life situations as revealed in autobiography were utilized in the plots of T.A.T. stories. In this chapter we have tried to determine the degree to which certain aspects of personality revealed in T.A.T. stories were revealed as well in autobiography. We have attempted to find answers to the following question:

1. To what extent are the desires revealed in T.A.T. stories the same as those in autobiography?

In answering this question we have approached the problem from two directions:

1. What motivations are most frequently revealed by each instrument and to what extent do these overlap?

2. To what extent are individual patterns revealed in each instrument and to what extent do these overlap?

In attacking this problem we have analyzed all of our T.A.T. stories and our autobiographical materials without knowledge of which stories matched which autobiographies. It will be recalled from chapter VIII that these materials were in folders marked only by code number and the key to this code was sealed until the final phases of the experiment. Our analysis was carried out according to the method described in chapter VIII. On the completion of the analyses and of the matching experiment, the code key was opened and the results analyzed in terms of the specific matchings
which then became apparent.

Results of Desires Comparison

The first step in this analysis was to tabulate the frequency of use of each of our desire categories for each of our individuals. This was done for both the analysis of the T.A.T. stories and the autobiographical material.

The desires tabulated from the autobiographies and from the T.A.T. were totaled for each item of our desires list and are reported in Table IX.

4726 desires were thus tabulated from autobiography representing an average of 102.7 desires analyzed for each of our cases. In the T.A.T. analysis there were a total of 2,933 desires or an average of 63.8 per person studied.

It will be noted from Table IX that a considerable degree of similarity exists between these two analyses. To investigate further the degree of similarity a rank order correlation was determined using the formula:

\[ r = 1 - \frac{6 \sum d^2}{n(n^2 - 1)} \]  

(118)

With this formula we get a rank order correlation of .739. This expresses a fairly sizeable degree of relationship and a rather surprising one in view of the oft repeated statements of workers with projective devices, MacFarlane (59) for example, who have claimed it was impossible to compare projective devices with life history materials as these materials could give no evidence of validity. While this figure is by no means perfect it certainly represents a fairly respectable degree of agreement between the two analyses of desires by this means of correlation.
<table>
<thead>
<tr>
<th>Cat</th>
<th>T.A.T. total</th>
<th>Biog. total</th>
<th>T.A.T. % of total</th>
<th>Biog. % of total</th>
<th>T.A.T. rank</th>
<th>Biog. rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be safe</td>
<td>134</td>
<td>172</td>
<td>4.6</td>
<td>3.6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Be helped to</td>
<td>39</td>
<td>150</td>
<td>2.0</td>
<td>3.2</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td>Have means to</td>
<td>120</td>
<td>101</td>
<td>4.1</td>
<td>2.1</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Continue status quo</td>
<td>50</td>
<td>43</td>
<td>1.7</td>
<td>0.9</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Be at peace mentally</td>
<td>200</td>
<td>142</td>
<td>6.8</td>
<td>3.0</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Believe in</td>
<td>18</td>
<td>42</td>
<td>.6</td>
<td>.8</td>
<td>32.5</td>
<td>21</td>
</tr>
<tr>
<td>Be consoled</td>
<td>54</td>
<td>30</td>
<td>1.8</td>
<td>.6</td>
<td>18</td>
<td>26</td>
</tr>
<tr>
<td>Be loved by</td>
<td>115</td>
<td>214</td>
<td>3.9</td>
<td>4.5</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Have sexual relationship</td>
<td>34</td>
<td>12</td>
<td>1.2</td>
<td>.3</td>
<td>25</td>
<td>34</td>
</tr>
<tr>
<td>To have a child or children</td>
<td>18</td>
<td>20</td>
<td>.6</td>
<td>.4</td>
<td>32.5</td>
<td>29</td>
</tr>
<tr>
<td>Maintain relationships with</td>
<td>319</td>
<td>136</td>
<td>10.8</td>
<td>2.9</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Be attractive to</td>
<td>41</td>
<td>239</td>
<td>1.4</td>
<td>5.0</td>
<td>21</td>
<td>6</td>
</tr>
<tr>
<td>Belong to someone</td>
<td>25</td>
<td>97</td>
<td>.8</td>
<td>2.0</td>
<td>29</td>
<td>.6</td>
</tr>
<tr>
<td>To be in company of, near to</td>
<td>23</td>
<td>10</td>
<td>.8</td>
<td>.2</td>
<td>31</td>
<td>35</td>
</tr>
<tr>
<td>Assist</td>
<td>32</td>
<td>34</td>
<td>1.1</td>
<td>.7</td>
<td>27</td>
<td>24</td>
</tr>
<tr>
<td>Care for</td>
<td>158</td>
<td>37</td>
<td>5.4</td>
<td>.8</td>
<td>5</td>
<td>22</td>
</tr>
</tbody>
</table>
### TABLE IX (continued)

**COMPARISON OF DESIRES TOTALS FOR T.A.T. AND AUTOBIOGRAPHY ANALYSIS**

<table>
<thead>
<tr>
<th>Cat</th>
<th>T.A.T. total</th>
<th>Biog. total</th>
<th>T.A.T. % of total</th>
<th>Biog. % of total</th>
<th>T.A.T. rank</th>
<th>Biog. rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect from</td>
<td>17</td>
<td>3</td>
<td>.6</td>
<td>.06</td>
<td>34</td>
<td>38</td>
</tr>
<tr>
<td>Abandon</td>
<td>40</td>
<td>16</td>
<td>1.4</td>
<td>.3</td>
<td>22</td>
<td>30</td>
</tr>
<tr>
<td>Accomplish</td>
<td>157</td>
<td>465</td>
<td>5.3</td>
<td>9.8</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Be respected by</td>
<td>103</td>
<td>360</td>
<td>3.5</td>
<td>7.5</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Be accepted</td>
<td>67</td>
<td>672</td>
<td>2.3</td>
<td>14.1</td>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td>Do one's duty</td>
<td>139</td>
<td>126</td>
<td>4.7</td>
<td>2.6</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Do what admired person wishes</td>
<td>32</td>
<td>116</td>
<td>1.1</td>
<td>2.4</td>
<td>27</td>
<td>14</td>
</tr>
<tr>
<td>Avoid blame</td>
<td>203</td>
<td>586</td>
<td>6.9</td>
<td>12.3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Avoid pain</td>
<td>6</td>
<td>24</td>
<td>.2</td>
<td>.5</td>
<td>39</td>
<td>27.5</td>
</tr>
<tr>
<td>Avoid illness</td>
<td>5</td>
<td>14</td>
<td>.2</td>
<td>.3</td>
<td>40</td>
<td>31.5</td>
</tr>
<tr>
<td>Avoid death</td>
<td>12</td>
<td>0</td>
<td>.4</td>
<td>0</td>
<td>36</td>
<td>39.5</td>
</tr>
<tr>
<td>Avoid restriction</td>
<td>211</td>
<td>395</td>
<td>7.2</td>
<td>8.3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Avoid struggle</td>
<td>32</td>
<td>13</td>
<td>1.1</td>
<td>.3</td>
<td>27</td>
<td>33</td>
</tr>
<tr>
<td>Punish</td>
<td>87</td>
<td>35</td>
<td>3.0</td>
<td>.7</td>
<td>13</td>
<td>23</td>
</tr>
<tr>
<td>Die</td>
<td>24</td>
<td>0</td>
<td>.8</td>
<td>0</td>
<td>30</td>
<td>29.5</td>
</tr>
<tr>
<td>Atoned</td>
<td>45</td>
<td>4</td>
<td>1.5</td>
<td>.06</td>
<td>20</td>
<td>36.5</td>
</tr>
<tr>
<td>Defy convention</td>
<td>10</td>
<td>4</td>
<td>.3</td>
<td>.06</td>
<td>37</td>
<td>36.5</td>
</tr>
<tr>
<td>Intellectual satisfac-</td>
<td>70</td>
<td>84</td>
<td>2.4</td>
<td>1.8</td>
<td>14.5</td>
<td>17</td>
</tr>
<tr>
<td>Cat</td>
<td>T.A.T. total</td>
<td>Biog. total</td>
<td>T.A.T. % of total</td>
<td>Biog. % of total</td>
<td>T.A.T. rank</td>
<td>Biog. rank</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------</td>
<td>-------------</td>
<td>------------------</td>
<td>-----------------</td>
<td>-------------</td>
<td>------------</td>
</tr>
<tr>
<td>Seek sensual experience</td>
<td>39</td>
<td>24</td>
<td>1.3</td>
<td>.5</td>
<td>23</td>
<td>27.5</td>
</tr>
<tr>
<td>Play</td>
<td>70</td>
<td>131</td>
<td>2.4</td>
<td>2.8</td>
<td>14.5</td>
<td>12</td>
</tr>
<tr>
<td>Control</td>
<td>35</td>
<td>32</td>
<td>1.2</td>
<td>.7</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>Keep</td>
<td>9</td>
<td>14</td>
<td>.3</td>
<td>.3</td>
<td>38</td>
<td>31.5</td>
</tr>
<tr>
<td>Overcome weakness</td>
<td>14</td>
<td>59</td>
<td>5</td>
<td>1.2</td>
<td>35</td>
<td>16</td>
</tr>
</tbody>
</table>
Examining this question further the first ten most frequently indicated desires were taken from each list and compared in Table X.

It is necessary to recall in examining these results that an autobiography is a life history and as such is primarily concerned with the past and the present. The T.A.T., on the other hand is an instrument designed more specifically with reference to the present or the future and the desires, hopes, fears and goals it expresses must be so interpreted. In a sense such a comparison as we are making here really comes down to this: To what extent are the past desires of the individual an indication of his present situation and likely to motivate him in the future?

Examining first the areas of overlap of the two instruments it appears that both are extensively utilized by the individual to express:

1. A desire for freedom from restraint, coercion, direction and control. When it is remembered that these subjects are college students in late adolescence this desire does not seem at all surprising. One wonders what shifts might occur in this category with other age groups.

2. A desire to avoid blame, humiliation and guilt and to be free from worry, fear, the catastrophe of the unknown etc.

3. A desire to accomplish, to produce and to reach life goals.

4. A desire for physical security.

5. A desire to be loved.

Perhaps these might be grouped to indicate a desire for freedom of action, security and response. Unfortunately, we have no way of knowing
TABLE X

OVERLAP AND SEPARATION OF THE TEN MOST FREQUENTLY
INDICATED DESIRES FROM T.A.T. AND FROM AUTOBIOGRAPHY

<table>
<thead>
<tr>
<th>In first 10 for TAT but not autobiography</th>
<th>In first 10 for both TAT &amp; autobiography</th>
<th>In first 10 for autobiography but not-TAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>relations with 10.9%</td>
<td>7.2% avoid restriction 8.3% be accepted 14.1%</td>
<td></td>
</tr>
<tr>
<td>care for 5.4%</td>
<td>6.9% avoid blame 12.3% be respected 7.5%</td>
<td></td>
</tr>
<tr>
<td>means to 4.1%</td>
<td>6.8% mental peace 3.0% be attractive to 5.0%</td>
<td></td>
</tr>
<tr>
<td>duty 4.7%</td>
<td>5.3% accomplish 9.8% be helped to 3.2%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.6% be safe 3.6%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.9% be loved by 4.5%</td>
<td></td>
</tr>
</tbody>
</table>
from the analysis "what these desires are concerned with" but only the existence of the desire itself. It is undoubtedly true that there may be wide variation in these desires when the object of the desire is investigated. For example, in childhood a desire to be loved may refer to parents but in a college girl may have a very different meaning. Nevertheless, that these desires are sufficiently strong to appear in both groups irrespective of objects is interesting in itself and represents a degree of similarity in the two instruments.

It is clear from the list of items most frequent in autobiography that the instrument tends to stress heavily the social and dependency aspects of the individual's desires. To be accepted, to be respected or looked up to and admired and to be attractive all strongly emphasize recognition aspects of the personality and are concerned with the social adequacy of the individual. Again these are typical adolescent motivations and probably mirror the social pressures, strivings and attitudes of the individual attempting to gain group status.

The other strong desire expressed in the autobiography is a desire to be helped, to be guided or dependent upon. In view of the nature of the autobiography and its emphasis upon the individual's past history and childhood experience this desire does not appear surprising.

The desires among the first ten in the T.A.T., however, do not lend themselves to such easy interpretation and appear more diverse in emphasis:

1. The desire to maintain relations with appears most strongly in the T.A.T. The concern of individuals with separation of one sort or another from loved ones plays a very large part in many stories. For college students away from home and facing the need shortly to set out on
their own this feeling is understandable. It is also likely this may represent an artifact of the type of pictures in the T.A.T. or may be simply a common stereotype. It is also likely that this category mirrors the war caused shortage of men and in many cases the separation of a relative or lover in action overseas.

2. The desire to care for is a relatively adult concern and one would not expect to find this strongly indicated in the autobiography which deals primarily with the years in which the individual was cared for himself.

3. The concern over means to achieve goals is strong in the T.A.T. and in the majority of cases refers particularly to the desire for wealth and financial security.

4. The emphasis upon duty in the T.A.T. is interesting and indicates perhaps the difficulties of adjusting to changing values and attitudes of the college student.

It is perhaps inaccurate to make comparisons on the basis of the most frequently indicated desires in the two lists as it seems quite possible that the most important motivations may be those infrequently mentioned. To examine further this question of the differences in kind of materials obtained from the two instruments we have brought together in Table XI all those items for each instrument varying by 2% or more from the other.

This analysis adds but two new factors to the picture. It adds nothing further to the autobiography but does indicate some superiority of the T.A.T. in revealing less socially acceptable desires insofar as expression by college women is concerned, such as to be married and to punish. In addition, to avoid blame moves from the overlap column to the autobiography.
### Table XI

**Variations in Desires Totals of Two Per Cent or Greater in T.A.T. and Autobiography**

<table>
<thead>
<tr>
<th>Greater in T.A.T.</th>
<th>% diff.</th>
<th>Greater in autobiography</th>
<th>% diff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain relations with</td>
<td>7.9%</td>
<td>To be accepted</td>
<td>11.3%</td>
</tr>
<tr>
<td>Care for</td>
<td>4.6%</td>
<td>To avoid blame</td>
<td>7.4%</td>
</tr>
<tr>
<td>Mental peace</td>
<td>3.8%</td>
<td>To accomplish</td>
<td>4.5%</td>
</tr>
<tr>
<td>Be married</td>
<td>2.4%</td>
<td>To be respected</td>
<td>4.0%</td>
</tr>
<tr>
<td>To punish</td>
<td>2.3%</td>
<td>To be attractive</td>
<td>3.5%</td>
</tr>
<tr>
<td>To do duty</td>
<td>2.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have means to</td>
<td>2.0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
while mental peace moves from the center column to the T.A.T. column. From this separation one gets the impression that the T.A.T. may reveal more worries, fears, guilt feelings and violent or socially unacceptable motivations to a somewhat greater extent than does autobiography.

Results of Individual Analysis

It is necessary to interpret the results of the section above most cautiously as they represent a comparison of totals without respect to individual significance. They represent totals which may include, particularly in the case of autobiography, much that is relatively unimportant or extraneous material. More important is the question of what is important to the individual, to what extent do these overlap in the two instruments and wherein do they differ. Totals may indicate these factors but they may also cover them up. (To have made rank order correlations for each individual would have been an excellent means of arriving at this matter but unfortunately, the number of desires for each individual was not sufficiently great to make this feasible.) Accordingly we have attempted a study of these factors as follows:

1. For each individual both T.A.T. and autobiography desires analyses were reduced to per cents of the individual's total number of desires indicated. This was done to equalize the two sets of data and to make them roughly comparable since there was a considerably higher average number of desires indicated for each person in the lengthy autobiography.

2. The average number of categories into which the desires for our individuals fell was 21.0 for autobiography and 23.5 for the T.A.T. out of a possible
in our desires list. It was decided to consider
for purposes of this analysis any desire in the upper
30% of an individual's analysis as significant and to
put this in workable terms it was decided to utilize
the six largest categories for each person.

3. The percentage figures for each individual were
then examined and the six highest marked for considera-
tion in both T.A.T. and autobiography. A rule of thumb
was necessary here to take care of instances in which
the fifth or sixth highest was tied with several others.
To govern this contingency it was decided to include
all at the same figure if the fifth or sixth case were
a tie except that no figure would be accepted below
5%. This meant that in some cases there were as high
as 3 items marked instead of six due to three ties for
6th place.

4. These marked items on the T.A.T. were then compared
to the similarly marked items of the autobiography and
examined for overlap. Those marked in T.A.T. alone
were scored "T", those in both categories "TB" and in
autobiography alone "B".

5. These tabulations were summarized and appear in
Table XII.

This table again illustrates the overlapping of major desires as re-
vealed by the two instruments.

It would appear that, although some overlapping of major desires
revealed by the individual appears, each instrument also makes certain
TABLE XII

AVERAGE NUMBER OF INSTANCES IN WHICH THE HIGHEST SIX DESIRES CATEGORIES FOR EACH INDIVIDUAL OVERLAP

<table>
<thead>
<tr>
<th>Description</th>
<th>Average</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. items in T.A.T. analysis</td>
<td>4.08</td>
<td>1 - 7</td>
</tr>
<tr>
<td>No. overlapping items</td>
<td>2.54</td>
<td>0 - 5</td>
</tr>
<tr>
<td>No. items appearing in biog. only</td>
<td>3.60</td>
<td>0 - 7</td>
</tr>
</tbody>
</table>

* Averages do not total 12 because of variation due to handling of tied scores. See text.
unique contributions of emphasis not major functions of the other.

An examination of the original data reveals further that in two cases out of the forty-six there was no overlapping at all of these major desires. That is, in two cases all of the individual's major desires were completely unique to either the T.A.T. or the autobiography.

On the T.A.T., one case overlapped so much that only one desire appeared significant in the T.A.T. alone. All other cases showed at least two such categories appearing in the T.A.T. but not in autobiography.

On the autobiography there was one case in which a complete overlapping occurred so that no desire category appeared for autobiography alone.

The procedure used in arriving at the above results, namely taking the top six for each individual from each group, placed restrictions on the numbers each instrument brought to the final figures. It was decided to repeat this comparison taking as significant for each individual any percentage for a particular desire greater than the per cent for that desire derived from the total group. In other words, in this second checking we considered significant for the individual any desire category determined for him greater than the expected frequency for that desire. Table XIII summarizes the results of this analysis.

From these results it would appear that while considerable overlapping exists, the significant desires from T.A.T. are less often overlapped than is true of the autobiography. This would seem to suggest that the T.A.T. is more revealing than the autobiography. It will be recalled that the average number of categories utilized by our subjects on the T.A.T. was 23.5 while for the autobiography the average was 21.0. While this difference in categories utilized may introduce some degree of error
TABLE XIII

AVERAGE NUMBER OF INSTANCES IN WHICH T.A.T. AND AUTOBIOGRAPHY DESIRES ANALYSES OVERLAP WHEN ALL DESIRES GREATER THAN AVERAGE EXPECTANCY ARE CONSIDERED SIGNIFICANT

<table>
<thead>
<tr>
<th></th>
<th>Average</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. items in T.A.T. alone</td>
<td>9.67</td>
<td>5 - 15</td>
</tr>
<tr>
<td>No. overlapping items</td>
<td>4.93</td>
<td>2 - 9</td>
</tr>
<tr>
<td>No. items in autobiography alone</td>
<td>6.45</td>
<td>3 - 12</td>
</tr>
</tbody>
</table>
into our results, it does not seem sufficient to markedly affect them. We have seen this point demonstrated in our comparison of the desires totals and in both approaches we have used to consider variations from the standpoint of the individual.

The next obvious question is: If the two instruments differ in what they reveal, in what aspects do they show this difference? We have seen something of these areas of difference in terms of the totals for each item. It is probable, however, that the most important differences lie in the categories which separate individuals rather than in the overall item count which may cover up or level out such individual differences in the use of the instrument. We have attempted to analyze these individual differences.

In this phase of our experiment we have assumed that when the results of any individual's analysis on any item exceeds the expected percentage of use of that category for the whole group, that that fact indicates significance of the item for that individual. Upon this assumption we have examined each subject's pattern of desires according to our analysis on the T.A.T. and on the autobiography. Wherever the percentage of response for the individual on any item exceeded the percentage of response for that item for the entire group of subjects, the item was marked as significant. These significant items for each individual were then compared in the two sets of data person by person and indicated as appearing in T.A.T. alone, in both instruments or in autobiography alone. The results have been tabulated and appear in Table XIV.

A comparison of Table XIV with Tables XII and XIII illustrates some interesting shifts in emphasis. The first 11 items showing most frequent significance in T.A.T. do not even appear on those tables considering only
### TABLE XIV

**NUMBER OF INDIVIDUALS SHOWING SIGNIFICANT* DIFFERENCE FOR EACH ITEM OF THE DESIRES LIST IN ANALYSIS OF T.A.T. AND AUTOBIOGRAPHY**

<table>
<thead>
<tr>
<th>Item</th>
<th>appears in TAT only</th>
<th>appears in TAT &amp; Biog. only</th>
<th>appears in auto-biog. only</th>
<th># of difference</th>
<th>in favor of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual relations with</td>
<td>20</td>
<td>2</td>
<td>3</td>
<td>17</td>
<td>T</td>
</tr>
<tr>
<td>To die</td>
<td>17</td>
<td>0</td>
<td>0</td>
<td>17</td>
<td>T</td>
</tr>
<tr>
<td>To stone</td>
<td>17</td>
<td>1</td>
<td>0</td>
<td>17</td>
<td>T</td>
</tr>
<tr>
<td>To avoid struggle</td>
<td>16</td>
<td>3</td>
<td>0</td>
<td>16</td>
<td>T</td>
</tr>
<tr>
<td>To be with</td>
<td>15</td>
<td>4</td>
<td>2</td>
<td>13</td>
<td>T</td>
</tr>
<tr>
<td>To abandon</td>
<td>16</td>
<td>1</td>
<td>4</td>
<td>12</td>
<td>T</td>
</tr>
<tr>
<td>To avoid death</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>T</td>
</tr>
<tr>
<td>To protect</td>
<td>10</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>T</td>
</tr>
<tr>
<td>To know</td>
<td>12</td>
<td>9</td>
<td>3</td>
<td>9</td>
<td>T</td>
</tr>
<tr>
<td>To be consoled</td>
<td>17</td>
<td>4</td>
<td>8</td>
<td>9</td>
<td>T</td>
</tr>
<tr>
<td>To defy convention</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>T</td>
</tr>
<tr>
<td>To care for</td>
<td>17</td>
<td>4</td>
<td>10</td>
<td>7</td>
<td>T</td>
</tr>
<tr>
<td>To have sensuous experience</td>
<td>12</td>
<td>4</td>
<td>5</td>
<td>7</td>
<td>T</td>
</tr>
<tr>
<td>To have child</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>T</td>
</tr>
<tr>
<td>To punish</td>
<td>10</td>
<td>9</td>
<td>5</td>
<td>5</td>
<td>T</td>
</tr>
<tr>
<td>To control</td>
<td>12</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>T</td>
</tr>
<tr>
<td>To assist</td>
<td>12</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>T</td>
</tr>
<tr>
<td>To have means to</td>
<td>15</td>
<td>4</td>
<td>10</td>
<td>5</td>
<td>T</td>
</tr>
</tbody>
</table>
TABLE XIV (continued)

NUMBER OF INDIVIDUALS SHOWING SIGNIFICANT DIFFERENCE FOR EACH ITEM OF THE DESIRES LIST IN ANALYSIS OF T.A.T. AND AUTOBIOGRAPHY

<table>
<thead>
<tr>
<th>Item</th>
<th>appears in TAT only</th>
<th>appears in TAT &amp; Biog.</th>
<th>appears in auto-biog. only</th>
<th># of difference</th>
<th>in favor of</th>
</tr>
</thead>
<tbody>
<tr>
<td>To believe in</td>
<td>12</td>
<td>3</td>
<td>8</td>
<td>4</td>
<td>T</td>
</tr>
<tr>
<td>To maintain relations with</td>
<td>14</td>
<td>9</td>
<td>10</td>
<td>4</td>
<td>T</td>
</tr>
<tr>
<td>To do as admired person wishes</td>
<td>15</td>
<td>7</td>
<td>11</td>
<td>4</td>
<td>T</td>
</tr>
<tr>
<td>To play</td>
<td>14</td>
<td>7</td>
<td>10</td>
<td>4</td>
<td>T</td>
</tr>
<tr>
<td>To do one's duty</td>
<td>12</td>
<td>9</td>
<td>10</td>
<td>2</td>
<td>T</td>
</tr>
<tr>
<td>To keep</td>
<td>8</td>
<td>0</td>
<td>6</td>
<td>2</td>
<td>T</td>
</tr>
<tr>
<td>To have mental peace</td>
<td>9</td>
<td>12</td>
<td>8</td>
<td>1</td>
<td>T</td>
</tr>
<tr>
<td>To be attractive to</td>
<td>11</td>
<td>9</td>
<td>10</td>
<td>1</td>
<td>T</td>
</tr>
<tr>
<td>To be safe</td>
<td>11</td>
<td>8</td>
<td>11</td>
<td>0</td>
<td>Neither</td>
</tr>
<tr>
<td>To maintain status quo</td>
<td>11</td>
<td>4</td>
<td>11</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>To belong</td>
<td>11</td>
<td>7</td>
<td>11</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>To avoid illness</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td>B</td>
</tr>
<tr>
<td>To be married</td>
<td>9</td>
<td>9</td>
<td>11</td>
<td>2</td>
<td>B</td>
</tr>
<tr>
<td>To be loved</td>
<td>6</td>
<td>14</td>
<td>8</td>
<td>2</td>
<td>B</td>
</tr>
<tr>
<td>To be helped</td>
<td>9</td>
<td>8</td>
<td>11</td>
<td>2</td>
<td>B</td>
</tr>
<tr>
<td>To avoid restriction</td>
<td>9</td>
<td>12</td>
<td>11</td>
<td>2</td>
<td>B</td>
</tr>
<tr>
<td>To accomplish</td>
<td>10</td>
<td>11</td>
<td>13</td>
<td>3</td>
<td>B</td>
</tr>
</tbody>
</table>
### TABLE XIV (continued)

**NUMBER OF INDIVIDUALS SHOWING SIGNIFICANT DIFFERENCE FOR EACH ITEM OF THE DESIRES LIST IN ANALYSIS OF T.A.T. AND AUTOBIOGRAPHY**

<table>
<thead>
<tr>
<th>Item</th>
<th>appears in TAT only</th>
<th>appears in TAT &amp; Biog. only</th>
<th>appears in auto-biog. only</th>
<th># of differences</th>
<th>in favor of</th>
</tr>
</thead>
<tbody>
<tr>
<td>To be respected</td>
<td>10</td>
<td>9</td>
<td>13</td>
<td>3</td>
<td>B</td>
</tr>
<tr>
<td>To avoid pain</td>
<td>4</td>
<td>1</td>
<td>7</td>
<td>3</td>
<td>B</td>
</tr>
<tr>
<td>To avoid blame</td>
<td>7</td>
<td>11</td>
<td>12</td>
<td>5</td>
<td>B</td>
</tr>
<tr>
<td>To be accepted</td>
<td>10</td>
<td>8</td>
<td>16</td>
<td>6</td>
<td>B</td>
</tr>
<tr>
<td>To overcome a handicap</td>
<td>7</td>
<td>2</td>
<td>15</td>
<td>8</td>
<td>B</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>456</strong></td>
<td><strong>227</strong></td>
<td><strong>286</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significance is defined here as: Any desire whose frequency for an individual is greater than the average frequency for the entire group of subjects.*
the differences in totals. Similarly, for autobiography, at least one of the largest differences does not appear. One item changes from one list to the other - the category to be married moves from T.A.T. emphasis to autobiography emphasis when significance in terms of the individual is considered. Those items in Table X indicated as of importance in both analyses hold their central position fairly well with the possible exception of to avoid blame which shows a fairly heavy loading toward the autobiography in this comparison.

If one considers a preponderance in a particular category toward one list or the other of 5 cases or more as significant, a very great superiority in favor of T.A.T. appears in this analysis. With such a criterion 18 items appear more frequently in T.A.T. and only 3 in autobiography. Examination of the totals on this table further reveals this difference. A total of 456 individuals show significant emphasis not revealed in autobiography as compared to 286 appearing in autobiography but not T.A.T. Although a difference in the average number of categories utilized in T.A.T. and autobiographical analyses appeared it does not seem possible that so small a difference could be responsible for the large amount of superiority seen in these results for the T.A.T. A much more likely explanation of this piling up in the T.A.T. seems to lie in a fundamental difference in the kinds of response found in each instrument.

Reference to Table IX will show that whereas in the T.A.T. there are 12 categories showing a total percentage of use below 1 percent there are 21 such categories in autobiography. Thus, there appears less emphasis in the more infrequently indicated categories for autobiography than for the T.A.T. At the other end of the scale, also, where only one category in T.A.T. is greater than 8 percent, there are four such categories in auto-
biography. With forty categories over which to spread the available one hundred percent this means a much greater concentration in autobiography upon a few items than is true in T.A.T.

It would appear therefore that autobiography is a more restricted instrument showing more specialization in certain areas of motivation than the T.A.T. which shows a greater spread of categories.

An examination of Table XIV helps to understand the nature of some of these differences between the two instruments. In examining these results it is important to recognize that the significance of these items is in terms of the criteria we have established, namely, that the percentage of occurrence for the individual must exceed the percentage of the group as a whole on that item. In these items, therefore, we have but a yes-no indication of significance and not a qualitative distinction which would answer "How much?". It is probable that wide variations in significance actually exist for each of the items in our Table. However, it may be said that these items meet a certain minimum criterion.

Autobiography items

Three items of the desires list show a superiority of five individuals or more in favor of autobiography.

1. Overcome handicap - difference 8

This factor seems to fit the logically expected materials from autobiography. Inasmuch as autobiography lends itself best to the reporting of fact and particularly emphasizes the past, it is not surprising to find this factor more closely associated with autobiography than with the T.A.T. which should emphasize more the present and future. Handicaps, real or ima-
ginary, are a very live problem, particularly in adolescence and are reported in autobiography often and with poignancy. Many of these problems, however, such as adolescent pimples, being too tall or short etc. disappear with greater maturity. Often by college age they have ceased to exist as problems at all. Perhaps this may explain its lack of emphasis in T.A.T. results. Another factor that may contribute to a low frequency of this item in the T.A.T. is the well known psychological fact that individuals possessing handicaps are often loathe to accept this fact. It is unlikely therefore that phantasy material would indicate these to any great extent. It would seem more likely that the individual would picture himself in phantasy as whole and as possessing the very opposite of his true characteristics.

2. To be accepted — difference 6

The presence of this category in the autobiography list would tend to corroborate the emphasis of that instrument on the social aspects of the individual's experience which we have previously mentioned.

3. To avoid blame — difference 5

This item appears to be fairly well represented in both instruments. It includes the desire to avoid humiliation, embarrassment etc.

The author's impression from his analysis of the autobiographical materials is that a great preponderance of the uses of this category were to describe feelings in various social situations particularly with respect
to embarrassing moments, situations leading to lack of self confidence, poor grades etc.

**T.A.T. items**

1. **To die** - difference 17, and **to avoid struggle** - difference 16

   These two items are closely allied and we have suggested elsewhere (p...) that they be consolidated. It is hardly surprising if our analysis of the nature of the content of autobiography is correct to find these items more often in T.A.T. **To die** is probably an exaggeration of the category **to avoid struggle**. Such feelings are distinctly not socially acceptable. In an autobiography the individual seems likely to deal more often with action, aggressiveness, etc. The above categories refer ordinarily to states of mental and emotional turmoil and represent an affective level not ordinarily dealt with in the action stressing autobiographical account.

2. **To stone** - difference 17

   This item contains a considerable loading of guilt feelings which are often not recognized by the writer as such, are repressed or inhibited because such feelings are socially unacceptable. In speaking of self in autobiography, then it is not surprising to find this category seldom used. It is likely too that there is a real distaste for the recall of incidents where this feeling is called for in writing an autobiography.

3. **For sexual relation with** - difference 17

   One would certainly expect a greater frequency in
this category on the T.A.T. The need to protect self is too great for the individual to bring himself to verbalize such socially reprehensible desires. In a great majority of cases it is likely that this desire may not be recognized to say nothing of being verbalized or admitted in a formal report.

4. **To be with** - difference 13

   It is difficult to know just why this item should appear greater in T.A.T. We are inclined to overlook it here and consolidate it as we have previously suggested with the category maintain relations with. It may be that its presence in this group of items is an artifact of this separation of the two categories.

5. **To abandon** - difference 12

   This category is used relative to abandonment of relations with someone close to an individual. Such feelings, however, are distinctly not socially acceptable, and, particularly where these feelings are directed toward a parent, are hardly likely to appear in autobiography. Loyalty to parents is expected by society whether such loyalty is deserved or not.

6. **To avoid death** - difference 9

   Why this item should appear so strongly significant for some individuals in T.A.T. and not at all in autobiography is difficult to understand. Its presence may be an artifact of its separation from to be safe with which we have suggested it should be consolidated. Per-
haps, too, it may be an artifact of the nature of material called for in T.A.T. and represents an exaggeration of the desire for security. It seems likely that avoiding death is far less common in the lives of most people than it is as the plot for dramatic stories.

7. To protect - difference 9, and to care for - difference 7

The greater presence of these two in T.A.T. appears what one would expect. Most of these subjects have been protected and been cared for most of their lives to date. The lack of emphasis in autobiography which deals primarily with the past seems quite the normal condition.

8. To know - difference 9

Autobiography deals primarily with fact, action and actual accomplishment. The lack of knowledge or desire for knowledge is less evident probably because of this emphasis. In autobiography the individual deals more with what he knows than with what he desires to know. A desire to know is essentially a concern of the present or future with which the T.A.T. is more likely to deal.

9. To be consoled - difference 9

Most of our subjects have led a fairly sheltered existence and the need for consolation in most cases has been infrequent. The desire to be consoled is furthermore a desire which evidences dependency rather than strength and is hence less socially acceptable in an autobiography where the tendency is "to put one's best foot forward." It may also represent an artifact of the kinds of ma-
terials gained from projective materials which we shall discuss later.

10. To defy convention - difference 8, and to punish - difference - 5

Both of these items represent violent and socially unacceptable desires unlikely of revelation in autobiography. The material and method of T.A.T., however, lends itself well to such expression of feeling.

11. To have sense experience - difference 7

The concern of autobiography with fact and incident is not likely to be greatly revealing of this desire. It is to be expected that phantasy material would lend itself better to the expression of this item.

12. To have a child - difference 6

Again, this appears to be a category which does not lend itself well to autobiography. For most of these subjects, marriage, home and children are things which are yet to be experienced. To state "I hope some day to have three children" is about the limit of expression which autobiography affords. It does not permit great freedom to indicate the strength or persistence of that desire. Furthermore, this is not a desire whose strong or repeated expression is considered "seemly" for young college women.

13. To control - difference 5

While the difference is not great in this category there does appear a leaning toward T.A.T. as a vehicle
for expression. Perhaps this again represents a situation in which autobiography is not as adequate due to its emphasis upon the past which for most of these subjects has been more a situation of being controlled than of controlling.

14. To assist - difference 5

This category also appears to represent the greater use of T.A.T. for expression of present and future desire than past, - social sensitivity is an adult concept. In the individual's life to the present it seems likely this has been a desire the existence of which is recent and the opportunity to exercise which has been limited.

15. To have means - difference 5

This is another category weakly indicated as favoring T.A.T. A majority of our subjects have always been comfortably well off and hence it seems likely this would be less indicated with respect to finances in autobiography. Its superiority in T.A.T. might be due to feelings of insecurity looking to the future.

Examination of the middle ground represented in Table XIV leads to certain observations with respect to the areas in which these instruments overlap. If one examines those items showing differences of less than five the following observations seem justified:

1. That these items of overlap tend to be items of a milder sort than those emphasized particularly by T.A.T. The more violent desires are separated from this group.

2. The three items showing no difference whatever
emphasize security and friendship and the maintenance of pleasant association.

3. All the rest of these items stress common "average" desires of the "average" individual. They represent the expected and the socially accepted, the desires one "ought" to have in our society.

Discussion and Conclusions

The results reported in this chapter seem to lead to certain fairly definite conclusions with respect to these two instruments. Below we have stated what we believe to be justifiable conclusions:

1. That the T.A.T. and autobiography are not identical in the motivational material which each reveals. This fact, is apparent at almost every turn in our experience and has been seen also in chapters VI and VII as well.

2. That, with respect to motivational factors as defined and utilized here, there is a very considerable area of overlap of the two instruments in the desires each reveals. In terms of the totals we have found a rank order correlation of desires indicated of .739. This area of overlap has been further demonstrated in each of the other analyses we have made on the total materials or in terms of individuals represented.

3. That, there is evidence to indicate this area of overlap lies in the milder, average or expected desires of the average individual for security, response, recognition and pleasant occupation.

4. That, with respect to motivation, the T.A.T. seems to
be the more revealing instrument.

5. That the T.A.T. shows a somewhat greater spread of response than autobiography.

6. That the T.A.T. according to this means of analysis, reveals more of the following kinds of material.
   a. The present and the future. As phantasy material the stress seems to fall upon the individual's hopes, desires, wishes, plans rather than upon that which has befallen him in the past.
   b. The socially unacceptable and violent kinds of motivation. It is more often used as a vehicle to express such socially unacceptable desires as sexual gratification, desire for children or to abandon parents etc. It is utilized too for the expression of violent feeling such as desire to punish, to defy convention, and to die.

7. That autobiography tends to emphasize, according to our analysis, the following:
   a. The individual's past, particularly his childhood.
   b. Factual, rather than phantasy material and action rather than material dealing directly with hopes, fears, desires etc. except as these may be inferred.
   c. That autobiography emphasizes the socially
acceptable, normal and expected more
often than T.A.T.

3. That there is a variable but positive agreement be-
tween individual responses to T.A.T. and to autobiography.
CHAPTER XI

ACTION OUTCOMES

This chapter presents the results of our analysis of action outcomes analyzed as described in Chapter VIII.

We have made no attempt to analyze the "crisis" interpretations made in the course of analysis because these lend themselves so poorly to any sort of statistical presentation. They are not comparable and vary very widely. Control of these factors is difficult, if not impossible, and since the "crises" themselves are so very much open to differences in interpretation it was not considered feasible to attempt such analysis. Extremely few of the "crisis" interpretations were sufficiently similar to classify. For example, two individuals faced with the same obstruction may have different desires so blocked or where desires are alike obstacles may differ.

Study of the action outcomes of conflict does lend itself to such treatment, however. We shall not emphasize this phase of our experiment too strongly as we are keenly aware of the limited number of cases with which we have dealt. Whereas on the T.A.T. an average of 63.3 desires was obtained for each individual, only 17.3 action outcomes were so obtained; in autobiography, there were 24.3 action outcomes analyzed per person as compared to an average of 102.7 desires. In view of the small numbers involved, therefore these results must be considered with great reservation.

Results

The action outcomes analysis of our data was made as described in Chapter VIII. The summary of our tabulations appears in Table XV.
### TABLE XV

**COMPARISON OF FREQUENCY TOTALS OF ACTION OUTCOMES ANALYSIS OF "THWARTING CRISIS" FOR T.A.T. AND AUTOBIOGRAPHY**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal change</td>
<td>10</td>
<td>46</td>
<td>1.2</td>
<td>4.0</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Destroy goal</td>
<td>8</td>
<td>0</td>
<td>1.0</td>
<td>0</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Attack</td>
<td>157</td>
<td>204</td>
<td>19.7</td>
<td>17.8</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Seek help</td>
<td>58</td>
<td>80</td>
<td>7.3</td>
<td>7.0</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Insanity</td>
<td>4</td>
<td>0</td>
<td>.0</td>
<td>0</td>
<td>15</td>
<td>16.5</td>
</tr>
<tr>
<td>Dreams</td>
<td>55</td>
<td>16</td>
<td>6.9</td>
<td>14.4</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Through —</td>
<td>30</td>
<td>8</td>
<td>3.8</td>
<td>.7</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Submit to</td>
<td>34</td>
<td>86</td>
<td>4.2</td>
<td>7.5</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Accept</td>
<td>186</td>
<td>171</td>
<td>23.3</td>
<td>15.0</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Deny barrier, take consequences</td>
<td>33</td>
<td>15</td>
<td>4.1</td>
<td>1.3</td>
<td>8</td>
<td>11.5</td>
</tr>
<tr>
<td>Deny barrier, attempt escape</td>
<td>15</td>
<td>37</td>
<td>1.9</td>
<td>3.2</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Suicide</td>
<td>29</td>
<td>0</td>
<td>3.6</td>
<td>0</td>
<td>10</td>
<td>16.5</td>
</tr>
<tr>
<td>Run away</td>
<td>57</td>
<td>41</td>
<td>7.1</td>
<td>3.6</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Avoid</td>
<td>5</td>
<td>229</td>
<td>.6</td>
<td>20.1</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>Change desire</td>
<td>1</td>
<td>1</td>
<td>.1</td>
<td>.1</td>
<td>16.5</td>
<td>14</td>
</tr>
</tbody>
</table>
### TABLE XV (continued)

**Comparison of Frequency Totals of Action Outcomes Analysis of "Thwarting Crises" for T.A.T. and Autobiography**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rationalize</td>
<td>0</td>
<td>15</td>
<td>0</td>
<td>1.3</td>
<td>18</td>
<td>11.5</td>
</tr>
<tr>
<td>Self punishment</td>
<td>1</td>
<td>1</td>
<td>.1</td>
<td>.1</td>
<td>16.5</td>
<td>15</td>
</tr>
<tr>
<td>No action, remain in conflict</td>
<td>115</td>
<td>194</td>
<td>14.4</td>
<td>16.7</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>798</strong></td>
<td><strong>1141</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
It will be noted that 798 such action outcomes were classified for the T.A.T. and 1141 for the autobiography. This greater number from the autobiography is due to the greater length of the materials in that instrument. The rank order correlation for the action outcomes in this table is .598 indicating some degree of agreement in the two lists but by no means a very large agreement.

It will be recalled that we have defined two classes of "crisis" situations in Chapter VIII. We must therefore consider action outcomes separately for these two categories.

Table XV includes only the action outcomes from "thwarting crises" as we have defined these. The action outcomes of "conflict crises" are indicated in Table XVI. In view of the greater length of autobiography, and the larger total number of action outcomes therein, it seems safe to state that T.A.T. carries more such "conflict crises" than does the autobiography.

Although some degree of similarity of action outcomes derived from each instrument is apparent, it is also evident that variability is likewise present. We have examined this question in the summaries of data shown in Tables XVII and XVIII.

From Table XVII it is apparent that, as in our Desires Analysis, there is a considerable overlap of the kinds of action outcomes revealed by the two instruments. This overlap seems to be concentrated in the more aggressive types of action, such as accept, attack and seek help, and in no action.

The two instruments appear to separate most widely on action categories stressing withdrawal. Of these the most interesting is the overwhelming emphasis upon avoid in autobiography. Twenty percent of the
### TABLE XVI

Comparison of number of action outcomes of "Conflict Crises" in T.A.T. and Autobiography

<table>
<thead>
<tr>
<th></th>
<th>T.A.T.</th>
<th>Autobiography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choice made</td>
<td>76</td>
<td>63</td>
</tr>
<tr>
<td>No choice made</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>81</td>
</tr>
</tbody>
</table>
TABLE XVII

OVERLAP OF THE SIX MOST FREQUENT ACTION OUTCOME CATEGORIES FOR T.A.T. AND AUTOBIOGRAPHY

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>% TAT</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---</td>
<td>-------</td>
</tr>
<tr>
<td>Runaway</td>
<td>7.1</td>
<td>23.3</td>
</tr>
<tr>
<td>Dreams</td>
<td>6.9</td>
<td>19.7</td>
</tr>
<tr>
<td></td>
<td>14.4</td>
<td>No action</td>
</tr>
<tr>
<td></td>
<td>7.3</td>
<td>Seek help</td>
</tr>
</tbody>
</table>


### TABLE XVIII

**SEPARATION OF ACTION OUTCOMES DIFFERING BY 2% OR MORE IN T.A.T. AND AUTOBIOGRAPHY**

<table>
<thead>
<tr>
<th>Greater in T.A.T.</th>
<th>% difference</th>
<th>Greater in Autobiography</th>
<th>% difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accept</td>
<td>8.3</td>
<td>Avoid</td>
<td>19.5</td>
</tr>
<tr>
<td>Dreams</td>
<td>5.5</td>
<td>Submit</td>
<td>3.2</td>
</tr>
<tr>
<td>Suicide</td>
<td>3.6</td>
<td>Change goal</td>
<td>2.6</td>
</tr>
<tr>
<td>Run away</td>
<td>3.5</td>
<td>No action</td>
<td>2.3</td>
</tr>
<tr>
<td>Through--</td>
<td>3.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deny barrier, take consequences</td>
<td>2.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
actions described in autobiography were of this type. This heavy emphasis may be the result of the particular papers our subjects were asked to write. It is possible that the papers on "Feelings of Inferiority" and "Lack of Self Confidence" may have been selective of incidents illustrating these action patterns. A cursory examination of the analysis sheets does not indicate any greater emphasis on these items in those sections of the autobiography but a more complete check might show that weighting to be such an artifact of our instruction. In any event, these autobiographies show a very large use of avoid in solving conflict situations. It is probable that the T.A.T. is more normative - the solution more approved while autobiography is what happened, not what is approved.

To a very large extent childhood behaviors are a succession of avoidances of one situation or another which has previously proven difficult or unpleasant. The emphasis in autobiography upon submission seems likewise a natural consequence of materials relating childhood incidents. There is probably greater need for submission in those years than in any others.

In T.A.T. to run away appears strongly. This is hardly surprising since, for most of our subjects, running away in real experience was impossible. It is probable that this factor may represent a wished for outlet that has been impossible in real life. The importance of the item dreams in T.A.T. seems to us interesting but difficult of explanation. It is quite possible that this item is an artifact of the T.A.T. materials. In four of the pictures the major subject's action may too easily be interpreted as dreaming and in two pictures could hardly be interpreted as anything else. With this frequent representation in the group, it seems necessary to discount this item because of the possibility of suggestion
involved.

In Table XVIII certain other actions are indicated as being fairly well separated in favor of one instrument or the other.

There is evident here one of the factors observed in the Desires Analysis; namely, the greater amount of emphasis in T.A.T. on the more violent types of behavior. Suicide and to deny the barrier and take the consequences are two such violent types of action. To commit suicide and then write an autobiography would be quite a feat. The presence of through— in the T.A.T. list is probably due to use of that category for descriptions of individuals seeking vicarious gratification of their desires through a child. That theme was very common and is obviously unlikely in autobiography.

On the autobiography side of this table the category change goal is of greatest interest. The very slight use of this category in both instruments was rather a surprise to the author. This item refers to compensation and from clinical experience would seem to play a much greater part in solution of conflict than has been expressed here in either autobiography or T.A.T.

Discussion and Conclusions

The number of items represented in this section of our analysis is small, perhaps too small to have any considerable degree of importance. Furthermore, we are dissatisfied with the Action Outcomes list, feeling it needs a great deal more refinement before it can adequately serve the purposes for which it was designed. We do not present it in this study with any great claims. It seems to us an idea which in our analysis has shown some merit but which needs cultivation.

In spite of these weaknesses, it seems possible to draw certain very
tentative conclusions from these results:

1. That there is a degree of relationship between action outcomes of conflict situations in T.A.T. and in autobiography.

2. That these two instruments overlap considerably with respect to the action outcomes each produces on analysis.

3. That this overlap occurs most frequently on the aggressive (but not violent) action descriptions.

4. That analysis of action outcomes in autobiography shows much greater frequency of "avoidance" than it does in T.A.T.

5. That there is evidence in the action outcomes analysis to corroborate the findings in our Desires Analysis.

6. That T.A.T. is likely to contain more violent types of behavior than autobiography.
CHAPTER XII

DISCUSSION AND CONCLUSIONS

A clinical background of training and experience and an interest in the new projective devices led to a consideration of our topic for investigation. More specifically, interest in the Thematic Apperception Test and the work done with this instrument at Harvard, combined with a feeling of dissatisfaction with some of the methods used there, led us to a consideration of the possibilities of a study of the T.A.T. that might clarify its possibilities for general clinical use. We were particularly interested in evaluating this projective instrument in comparison with other devices. The comparison with autobiography was decided upon because it was felt this might also shed some light on the validity of the projective hypothesis which holds that only those things may be projected which have been part of the individual's total experience.

In choosing this problem for study we were quite aware of some of the difficulties involved, although it must be admitted that some were unforeseen and at times even shocking. It was clear from the beginning, for example, that we were dealing with two instruments of a crude nature and that it would be necessary to devise our own techniques in an area relatively little studied. It has been necessary to learn as we proceeded. As a result, after two years of work, we are still by no means satisfied with what has been accomplished. This experiment has been largely exploratory and has raised many more problems than it has solved.

We have found it necessary to make a number of choices in designing and carrying out this project. Among some of the more difficult have been:

1. Whether to examine any one of several hundred possible
aspects of the T.A.T. in detail and with thoroughness, or whether to take a larger approach which would necessitate the utilization of crude techniques. We have chosen the latter course primarily because it appeared to offer more immediate although less refined possibilities of clinical use and because this approach seemed to offer promise of making possible a considerable number of further researches with more specific aspects. In so choosing, we have recognized that the latter approach raises difficult problems of defense.

A second choice with which we have been faced is concerned with techniques. It was necessary to choose between spending our entire time on the construction and refinement of techniques or to make the best possible compromise and push on to other larger matters of interest. We therefore devoted six months to our techniques and chose the latter course. It is clear that this length of time was by no means adequate for the production of a finished technique of analysis. Nevertheless, it was possible to construct devices which worked fairly well. Furthermore, by the extended use we have given them, we are in a better position to improve them.

The third major choice necessary was whether we wished to direct our investigation in search of factors important to theory or to practice as its major direction. We recognize that it is ridiculous to divorce one from the other. It is, however, possible to emphasize one or the other in
research and each leads to somewhat different approaches. If one chooses to emphasize the theoretical in a work of this sort, there are so many pressing problems in that area that he must necessarily lose some grasp of the applied aspects. We have chosen here to emphasize the applied problems and recognize that we have often been weak with respect to the theoretical ramifications of some aspects of our study.

We have attempted in the following sections to evaluate our experiment and its findings, to criticize our endeavors and to make suggestions for further research.

The Plan of the Experiment:

This experiment has studied the T.A.T. in comparison with autobiography upon four major points:

1. The degree to which all reasonable interpretation by the analyst from the T.A.T. could be matched with their corresponding autobiographies. In this respect we were concerned with the total clinical picture as derived from T.A.T.

2. The degree to which actual personal experience as described in T.A.T. was utilized in the production of "plots" in T.A.T. stories.

3. The degree to which the desires of the subject as interpreted from autobiography agreed with the desires of the identical character in T.A.T. stories.

4. The degree to which the action outcomes of "crisis" situations of the identified characters in T.A.T.
stories agreed with action outcomes of "crisis" situations in the experience of the subject as described in autobiography.

On the whole this plan appeared reasonably sound although the data collected for the fourth area of our investigation were not sufficiently adequate to prove by any means conclusive. The major weaknesses of the experiment seem to be in the crudity of techniques and in the difficulty of working with clinical and theoretical concepts inadequately defined in general use.

Conclusions and Discussion of Results

We present here the general conclusions of most importance from our total investigation. The reader is referred to the closing pages of each of our preceding chapters for the more specific conclusions with limited reference to a specific phase of our study. In addition to these conclusions, which we have numbered and underlined for the sake of clarity, we have discussed certain other general observations and recommendations which have become crystallized in the course of this experiment and which seem worthy of presentation.

1. The Thematic Apperception Test and autobiography as utilized in this experiment are not identical with respect to themes, desires or action outcomes as we have defined them. This point has been demonstrated repeatedly in the failure to arrive at any satisfactory degree of matching of thumb nail sketch to autobiography, in the correlations of desires (.739) and action outcomes (.598) from T.A.T. and autobiography and the percentage of agreement between life situations from autobiography and T.A.T. story plots (31%).

These results give evidence to support MacFarlane's (59) contention
that projective devices cannot be satisfactorily validated against life history materials. It is evident that any such attempt would be likely to contain so large an error due to non comparability of instruments as to lead to false conclusions. It seems likely that validation of both devices must rely in the final analysis upon success in prediction.

2. **There is a variable degree of overlapping of the Thematic Apperception Test with autobiography with respect to each of the variables we have studied but each instrument also has certain unique aspects not possessed in marked degree by the other.**

The amount of overlapping observed in these instruments varied widely with respect to the aspect under consideration. Least overlapping was observed in our attempt to match thumb nail sketch interpretations from T.A.T. with autobiographical summaries. Successful matching by our judges ran from no success whatever to complete success. The majority of matchings, although greater than chance expectancy were quite low however.

Analysis of the degree to which life situation as portrayed in autobiography were utilized in T.A.T. story plots showed 3% of the stories to be practically identical, 31% were partially similar and 69% showed no evidence of similarity.

Comparison of the total desires from analysis of T.A.T. and autobiography gave a rank order correlation of .739. Six of the ten most frequently indicated desires in each instrument also overlapped.

The rank order correlation for the action outcomes analyzed from each instrument was .598.

Thus, although these two instruments are not identical they do show a very considerable degree of similarity.

3. **Comprehensive interpretations made from T.A.T. stories are not**
readily observable in autobiographical summaries as measured by matching technique. Our judges varied in success of matching from 0 - 100% accuracy with materials. While in most cases it was possible to match these materials in a degree comfortably greater than chance expectancy the accuracy of matchings was about 40%. It seems clear that interpretations or thumb nail sketches derived from T.A.T. analysis present a somewhat different view of the individual than appears in autobiography. This appears due to either or both of the following possibilities:

a. That T.A.T. or autobiography or both of these may be in error with respect to their description of the individual.

b. That T.A.T. and autobiography emphasize different aspects of the personality under consideration.

Among some of the more specific difficulties of interpretation of T.A.T. stories is the problem of the degree of detail to which the analyst should respond. It is possible with these materials to make fairly detailed analyses with respect to specific factors, in which case analysis results in a frequency count of specific motivations (as we have done in Chapter X) or to approach the problem from a broad, general interpretation, in which case analysis ends in a thumb nail sketch (as we have done in Chapter VI) or in a diagnosis. In the first instance the interpretation becomes subject to statistical analysis but tends to destroy interrelationships. In the second case, analysis is fairly satisfactory for clinical use but statistical and research analysis becomes difficult. Both techniques are frequently used and each has advantages depending on the ends in view. At this writing no adequate solution to the dilemma has yet been suggested.

Another problem in interpretation of such materials lies in the in-
terpreter himself. It is quite clear that a high degree of comparability between interpretations by different analysts cannot be expected at this point in development. Factors of experience, training, points of view and personality of the interpreter enter into his interpretation and cause wide variations in results. A related problem concerns the depth of interpretation to be made. This is particularly difficult to control as it is so greatly affected by factors within the interpreter as to the degree to which response is made to the indicated facts or the meanings with which the interpreter invests them. In a sense, the particular interpretations of the analyst are, in themselves, projections as the meanings he sees must be in terms of his own experiences, attitudes, feelings etc.

Since whatever interpretations are made must necessarily be inferred in the subject there is a great deal of danger that the analyst who was a rejected child may interpret many problems as instances of rejection because of his own difficulties. It is likely that an individual's own problems and behavior make him more sensitive to similar situations in others.

From our experience in the interpretation of these materials one very important danger in interpretation becomes evident which we have not previously seen discussed. We have indicated that projective materials seem to be characterized by exaggeration of feeling expressed. It is not surprising to find the release of feeling and attitude in fantasy running to this extreme and seems a "normal" kind of response. In the interpretation of these materials, however, it is easy to be misled by these exaggerations. They are most difficult to compensate for as one has no way of knowing the extent of exaggeration. The frequency with which projective materials give vent to the socially unacceptable and particularly
the more violent feelings of the individual further complicate this matter and is likely to result in extreme interpretations. We have seen in this study how this affected our "Matching phase".

Actual behavior in life situations is more often than not "tempered" behavior and rarely runs to the extremes. As clinicians we are not interested in finding that the client has certain hostilities, let us say, which can be released in projection. We are interested in the mechanism which hold or fail to hold this hostility in balance. This seems characteristic of life. The human organism is a finely balanced mechanism and the behavior of that organism is likewise subjected to balancing and tempering forces. Since projective devices are expressly designed to circumvent these "normal" controls upon expression, it is not surprising that materials gained from their use appear abnormal or extreme in degree. Expression of a violent desire therefore, does not necessarily imply greater strength of that desire but may be simply brought to light by the removal of usual controls. It is probable that there is no behavior of which any individual is incapable. Hence, the existence of an urge in the subject is not the primary aspect of interest to the clinician but rather the mechanism by which these urges are controlled or permitted to operate which are vital to his understanding.

There is real danger, therefore, in applying interpretations from projective instruments directly to the individual. There is an all too common tendency to apply such findings without benefit of mitigation. This seems a particularly common error in Eorshoch interpretations although workers with other projective instruments have also shown such loose interpretations.

Bellak's (14) study demonstrated that very significant changes oc-
curred in the amount of aggression shown in T.A.T. responses when his subjects were insulted during the testing. This would seem to indicate that the device is subject to momentary changes of mood in the subject and implies a further need for caution in interpretation.

4. The Thematic Apperception Test appears to be a more comprehensive instrument than autobiography when compared with respect to the factors of this analysis.

This wider coverage of the T.A.T. is demonstrated in the greater spread of items from our desires interpretations and exists in spite of the greater length of autobiography and the greater total number of items utilized in the analysis of autobiography. Furthermore, we have demonstrated that, with respect to desires interpretations, the autobiography shows a greater piling up in a few items than in true of T.A.T.

If this conclusion should hold true generally, as shown by further research, and if the validity of interpretation can be adequately demonstrated, the T.A.T. would be far more useful clinically than the autobiography. The saving in time and labor involved in collection of data and analysis would be a very great practical consideration. The greater interest value inherent in the T.A.T. would also appear to be a factor making it useful in clinical work.

5. Interpretations from the Thematic Apperception Test reveal a greater emphasis in that instrument as compared to autobiography upon:
   a. The present state of the individual.
   b. The desires of the individual for the future.
   c. Less socially acceptable desires and actions.
   d. More violent and strenuous desires and actions.

These conclusions have been derived from a critical examination of
the interpretations drawn from T.A.T. stories for our thumb nail sketches. In our desires analysis it was observed that the desires revealed with greater frequency in T.A.T. than in autobiography were characterized by seemingly greater emphasis on present or future and socially less acceptable or violent desires categories. The action outcomes of "crisis" situations likewise showed greater frequency of more violent types of behavior than was observable in interpretation from autobiography.

These results and those in conclusion number 4 give support to the claims made for the T.A.T. by its originators that the projective character of the instrument makes possible a greater freedom of expression for the subject and that under the protection offered by the projective instrument the subject is freer to express deeper and more violent emotions than is possible with more orthodox instruments. Although support is indicated for greater freedom from restraint in responses, it is still necessary to demonstrate that these responses are accurate projections of the individual's actual state of being.

6. The Thematic Apperception Test story plots of an individual may occasionally be identical with his life experience, more often show only partial agreement with life experience but in the majority of instances show no agreement with life experience whatever when compared to autobiography.

Our comparison of story plots with autobiography has indicated complete utilization of personal experience in 2.8% of the stories, partial use of personal experience in 25.8% and no evidence of use of personal experience in 69% of the stories.

According to the "projective hypothesis", the individual must draw upon his own experience in responding to the relatively unstructured pro-
jective situation. While our evidence gives some support to this contention we have not examined the vicarious experience of the individual nor have we examined the total experience of our subjects. We have been limited to a sampling of the subject's experience as he has chosen to relate it. It is likely that much detail has been overlooked but it is also likely that we shall never be able to measure any individual's total experience. Examination of our autobiographies reveals a rather satisfactory sampling of fact and incident although many details are certainly missing.

In summary, then, it may be said that the T.A.T. seems to emphasize relatively more than autobiography the present and future rather than the past, the socially unacceptable and violent rather than the acceptable and expected and that much of the material furthermore seems to bear little relationship to fact in the experience of the subject as revealed in autobiography.

In at least one respect the T.A.T. appears superior to the Rorschach Ink Blots. From the Rorschach, it is claimed, it is possible to determine many of the emotions, drives, interests and such factors with respect to a personality. Due to the nature of the Rorschach materials, however, little insight is gained into the actual experience of the individual. Thus, while it may be said of a subject that he suffers from inferiority feelings or is "neurotic", the Rorschach is unable to suggest the origin or present function of such feelings or states. We have seen in the T.A.T., however, that a sizeable portion of the story plots is directly comparable to the life situation of the subject. It is possible for an experienced analyst, therefore, not only to describe his client's motivation and possible states but to suggest the possible sources of these and their
present manifestations.

Since the majority of T.A.T. stories do not seem directly related to the life of the individual as seen in his autobiography, the question of the interpretation to be placed upon themes from other sources presents a very difficult problem. Murray has claimed these phantasy themes as highly revealing. He states that the very fact that the individual remembers a particular plot from story or movie is indicative of the special meaning of that plot for the individual. The presence of such plots makes interpretation in a strict relationship from plot to diagnosis a hazardous process and undoubtedly leads to error.

7. Although a majority of the pictures of the Thematic Apperception Test seem about equally useful in the material they elicit, several show wide variations.

Most notable of these variations for our group and our analysis are:

Number 2, which shows much greater identification and transference of life situation to story plot.

Numbers 15 and 17GF, which are much less fruitful for these purposes.

Number 11, which seemed the weakest of the pictures for these purposes and very often produced sheer description or such generalities that interpretation, except in the loosest and most symbolic terms, was often impossible.

While the pictures chosen for the present revision of the T.A.T. are the result of selection from a considerable number of possibilities, this selection process was carried out by a group at Harvard with a particular viewpoint and theoretical prejudice. Many of the individuals in that group are well known in psychoanalytic circles and lean heavily toward
those principles. Furthermore, Murray, himself, has advanced a theory of personality in terms of which this instrument was constructed. It is quite likely, therefore, that although these pictures suit the purposes of a psychoanalytic group very well, other groups might be able to devise different groups of pictures more satisfactory for their own purposes or which applied more effectively to their peculiar pattern of theoretical interpretation.

We have seen in this experiment that several pictures did not elicit as much material significant in terms of our criteria as others. They may have given such results, because of the background of the present analyst who was not extensively schooled in psychoanalysis and in this experiment, attempted specifically to remain close to more orthodox and well established psychological concepts. It is likely that other workers approaching the T.A.T. from other points of view might find these pictures revealed materials highly significant in the light of interpretative theories.

Symonds (105) criteria for selecting of pictures useful for adolescents might well be applied to other groups whose characteristics we should like to investigate. Our findings tend to confirm Symonds' contention that those pictures seem most revealing which picture the individual's own socio-economic status and which contain characters with whom the subject can easily identify himself. It seems likely that one way of selecting such pictures for other groups might be to base them on the findings of instruments similar to the Mooney Problems Check List. These should suggest problem areas around which pictures might be developed for specific purposes. In this way sets of pictures might be built up for use in industry, colleges, secondary schools, etc.

Projective devices, by definition, present the subject with a poorly
defined stimulus so that the subject may invest it with his own meanings and respond in terms of those meanings. In designing a test to explore more specific aspects, therefore, it is necessary to beware of too great a specificity of the stimulus situation. Otherwise this fundamental character of the projective device is lost.

3. According to our methods of analysis, interpretations from autobiography reveal a greater emphasis in that instrument as compared to the Thematic Apperception Test upon:

   a. **Factual and action descriptive materials.**

   b. **Items of past experience, particularly childhood and adolescent experience.**

   c. **Socially acceptable and less violent feelings, desires, attitudes etc.**

In this study we have seen these factors responsible for some of the difficulties of matching interpretation to autobiographical summary. These emphases also have been seen in our situation analysis. In the desires analysis we have observed that those Desires descriptions appearing more prominently in autobiography than in T.A.T. were desires of this sort. This has also been true for the action outcomes analysis where autobiography has shown a greater frequency of milder types of action outcome descriptions.

What is obtained from an autobiography is mainly dependent on the instructions given in securing materials, the rapport existing between the collector and the writer, the situation in which such materials are collected and willingness and ability of the individual to divulge information about himself. Under any circumstances the amount of material derived is bound to be extensive, yet highly selective, cumbersome and to
include a large amount of more or less extraneous matter. In autobiography as in most personal documents, it is necessary to make the best possible compromise between assuring sufficient freedom to the individual and assuring adequate coverage for the purposes of study. The topical method of collection is one method by which control over content can be exerted. The topical autobiography we have used seems eminently suited for the purpose we have had but it seems likely that each of the topical headings we have used could be broken down to include four or five specific sub headings without undue damage to essential free expression.

The material obtained in autobiography is of course dependent on the willingness of the subject to divulge information and the extent of his need to protect himself in the course of writing. It is further dependent on the ability of the subject to recognize and to select that which is important for inclusion and his ability to express this information so that it is clearly understood by the reader.

The autobiography cannot include that which is repressed or forgotten except as it may be possible for the analyst to see these through his interpretation. Unless rapport is excellent, it seems unlikely that autobiography will include incidents of which the writer is ashamed or which may be socially unacceptable. Moreover, it is very unlikely to include those incidents which the subject wishes to forget.

The emphasis in autobiography must be on the past and the meaning of this past for the present situation must necessarily rest on the accuracy of interpretation of the subject or analyst. While it is certain that the individual is in large measure the product of his past, interpretation is difficult from autobiography by reason of the factors tending to incompleteness and inaccuracy of information. If the analyst is concerned
with emotional tones, attitudes, motives and such aspects of personality, the difficulty of interpretation is further complicated by the preponderance of action description in autobiography.

One of the most difficult problems of interpretation of autobiography is created by the tremendous mass of material collected. This again raises the dilemma of the level upon which interpretation is to be made. On the one hand it is essential to reduce the mass of material to workable form and on the other it is equally essential to maintain the integrity of the original data and meaning.

One of the most important aspects of an individual personality in which the clinician is interested are those situations or conditions which the subject will not or cannot accept. To the clinician these non accepted factors are of vital importance in understanding his client and planning therapy. In autobiography in which the individual is given the task of self description, such factors are often revealed. This situation is best illustrated in the case of the physically handicapped. The subject who possesses such a handicap and cannot accept this fact or finds his handicap distasteful, however, is not likely to mention such a matter in fantasy. In fantasy he is more likely to devote his attention to what he would like to be. Thus, the analyst might be led to a directly opposite conclusion than that warranted by the facts if diagnosis were attempted from T.A.T. alone.

9. It is possible to build a method of analysis for the Thematic Apperception Test and autobiography based upon current and generally accepted psychological concepts.

We have attempted in this experiment building of such an analysis technique. We make no claims, however, that this method is either a
refined instrument or even a complete instrument. It has worked quite satisfactorily for the purposes of this study and promises to be useful as a device for further research. Although a number of weaknesses have appeared they do not appear irremediable and seem a natural consequence of the trial, error and continuous refinement necessary in the construction of any new device.

One of the most interesting observations that has come to light in the course of our work with this construction is the difficulty of defining concepts in every day use in clinical practice. When it becomes necessary to apply to these common principles the definitions necessary for clarity in research, one is immediately confronted with the fact that many terms in modern practice have been chosen from this or that school of thought and applied without adequate definition to situations outside the original school from which they spring. In defining terms one is immediately thwarted by the discovery that many useful and descriptive terms have been appropriated and specifically defined by a particular school, for example the words "region" and "area" among others, and to avoid identification with such schools the worker is forced to use less satisfactory terms for description. Furthermore, it becomes clear in working with these common terms that in many cases there is no adequate agreement on meanings.

In spite of these difficulties, however, there seems to us real merit in attempting translation of techniques and instruments from the particular school in which they originate to wider and more generally accepted fields of practice. In this way it is sometimes possible to demonstrate that the unfortunate development of new, exclusive and sometimes highly fanciful terminology in different schools of thought actually obscure
meanings acceptable in a wider sense. Thus the building up of complicated and specialized terminology tends oftentimes to compartmentalize thinking and to create argument over what is, in reality, essential agreement. It is possible that attempts to define these terms in practice may result in breaking down some of these barriers and thus contributing to greater understanding and more rapid progress.

10. It is possible in dealing with personal documents and projective devices in their present form to demonstrate greater agreement on the presence or absence of a particular factor in the material than agreement between independent judges working with the same materials.

In making this statement we have purposely avoided using the terms "validity" and "reliability" in describing this phenomenon. These terms have been used by others (Cartwright and French (27), for example) but their use leads one to the statistical absurdity of a "validity" very much greater than "reliability". It seems to us that this absurdity is the result of the transfer of statistical concepts to a situation in which they do not apply.

It is obviously impossible for projective materials themselves to be "reliable" in a strict sense. It is not the materials but the interpretations from the materials on which we should like to have agreement. Since reliability implies trustworthiness it does not seem a proper term applied to these interpretations since a high agreement of interpretation may conceivably be in total error. MacFarlane (59) has suggested the use of the term congruence of interpretation in place of reliability. We are inclined to concur in this usage.

In any event, our results demonstrate quite conclusively that interpretations of a particular analyst may be judged quite accurate (26%) by
competent judges. When the analyst has opportunity to present his evidence, this agreement may rise as high as 96% although it is still true that independent analyses show divergencies and even contradictions.

Further Observations and Recommendations

In the course of our experience in this study certain observations and attitudes have developed which seem worthy of consideration here. One of these has to do with administration of the Thematic Apperception Test.

Although Murray and his co-workers at Harvard have insisted upon the original method of administration of the T.A.T., it does not seem to us that this is as essential as they have indicated. It is necessary in matters of this kind to make the best possible compromises between theoretical perfection on the one hand and practical considerations on the other, if one wishes to use a device at all for other than research purposes.

It is our feeling that other methods of administration do not introduce errors so great as to minimize results. In the experience of Christenson (28) and in our own experience, it has seemed possible to get very acceptable protocols in writing and at great saving of time and expense. It seems possible, furthermore, that there may be real advantages attached to such methods in the more impersonal character of writing responses as compared to oral presentation. It seems likely that the practical advantages far outweigh any possibilities of error involved in the matter.

The original instructions to the subject are to give as dramatic a story as possible for each picture. This seems to us a matter well worth experimentation. There is a real possibility that such instructions may tend to result in exaggeration, or the use of incidents from drama, the movies, books and the like rather than more subjective experiences.
Among other observations, the ethical problem of the use of projective devices seems important and also somewhat disturbing to us. If projective devices prove to be as revealing of the individual's most hidden desires, as has been claimed for them, it seems to us necessary to raise the ethical question of the degree to which the psychologist is justified in violating the personal integrity of the subject. Since the significance of the materials revealed is necessarily unknown to the subject and since he is purposely misled as to the reasons for administration of the device, he is stripped of his protective armor and is at the mercies of whatever individual or agency interprets these results. It is hard to believe that the individual has no "right" to these protections and it is necessary that the interpreter or administrator of such devices assume full responsibility for the outcomes of such violation of integrity. It seems to us that it is necessary in psychological training that instruments of this type be carefully guarded for the use of those who meet some sort of a carefully prescribed criteria. If these instruments prove as revealing as they seem, the amount of power placed in the hands of the interpreter is extremely great. Such power carries very definite responsibility. If psychology is to avoid catering to charlatanism it is essential that some code of ethics be prescribed with respect to these instruments and rigidly adhered to.

Suggested Research

Our experience with T.A.T. and autobiography has made clear some of the possibilities for research inherent in these two instruments. It seems to us possible to investigate effectively a number of interesting questions by means of these devices. Particularly important or interesting areas of further research necessary or likely of important results are the following:
1. Exploration and development of further projective devices. A great deal of research has already been compiled with respect to this problem but the field still seems hardly scratched. It is probable that not all devices are equally profitable or identically useful.

2. Techniques of analysis and interpretation. To date most analysis and interpretation is in terms of clinical "hunches" rather than well defined and scientifically prescribed practices. There seem almost limitless possibilities for the development of devices for analysis of data and these are badly needed for research purposes. Questions of statistical manipulation of findings also appears a fertile field of research. The establishment of norms seems particularly needed. Since it is generally agreed that deviation rather than averages are important in interpreting projection, the development of frequency tables similar to Kent-Rosanoff's tables of frequency for free association seems necessary.

3. The nature of materials obtained from devices. One of the important questions here has to do with the question: "How much is projection and how much simply response to the stimulus presented?" It seems reasonable that there are probably wide variations of both quantity and quality of response in projective instruments. It is important that these be defined.
4. Validity and reliability. It is probable that the answers to validity in the final analysis must rest upon success in prediction.

5. Comparison of instruments. This problem should lead to further clarification of number three above but will also lead to important judgment as to comparative effectiveness of devices and indication of specific usefulness.

6. Questions of administration. This is a practical problem of great interest to any worker concerned with using projective devices. What differences exist in various methods of oral or written administration, for example, are but one possible problem. With respect to the T.A.T. specifically is the question of the effects of asking for most dramatic stories or simply requesting response without specific direction.

7. Application to problems. With better determination of some of the above factors a whole field of use opens up where personal documents or projective devices should prove highly revealing. To mention but a few of these are problems of social attitudes, race prejudice, investigation of the dynamic interactions of the family group, sibling relationships, juvenile delinquency, problems in abnormal psychology, problems in perception, and a whole host of specific areas of thinking and attitudes of the individual that may be opened to observation by such devices.
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Appendix A

Sample Thumbnail Sketch for Matching Experiment

T-9 F

'Strongly indicated'

This person is quite close to and fond of her parents and particularly her mother. On occasion she has become angry with her mother and has felt guilty about this, quickly desiring to make up. Although the family is not wealthy they have always gotten along fairly well. This girl dislikes poverty and financial insecurity. She feels her parents have sacrificed much to send her to school. She is grateful and wants to care for them in turn. She strongly desires the approval and admiration of the family. She has resolved to enter a profession partly to repay them. She feels that true love is the most important thing in life and has probably seen this in her own parents. She has been much disillusioned by a man at some time in her life who made advances of a sexual nature. She fears losing her self respect in this sort of behavior. She has lost at least one man with whom she was much in love by sending him away. She later wished she had not. She has also known a man who spurned her love. She is disturbed about male desires and feels she cannot trust them, that many gentlemen are not at all. She has had a fairly happy childhood and has at times feared growing up. Sex knowledge came as somewhat of a shock and fairly late to this person. She is Jewish and is disturbed over the social oppression of her people. She broods sometimes on the lot of her fellows. She feels they are oppressed by the powerful majority group. She has known a serious illness, nurse's care and a fairly long convalescence perhaps in a wheelchair. She feels she is not doing enough in the war effort and has toyed with the idea of entering the Waves. She strongly desires a home of her own. She has had office experience. She is often depressed by the war.

'Weakly indicated'

Sometimes feels she is too selfish. Blames self for injury to someone. Has had close contact with epileptic--perhaps in family. Feels may not accomplish her big desires. Has been jealous over a girl who stole her man. Someone in the family--"queer"? Feels close to and wants care for sister.
Incidents:
In third grade Miss Jones worried about my habit of walking about with my chin on my chest and my shyness. Told me a story about a little girl whose neck disappeared. It scared me so badly I never did that again. In fifth grade a typical nervous spinster with a rule against gum chewing caught me in the act. Out of a deathly, horrified silence I was sent to the front of the room to stand with the gum on the end of my nose. I was humiliated and ashamed and frightened when to make matters worse the superintendent walked in with the supervisor. To this day I am conditioned against mathematics. I am still self-conscious in the classroom. In 7th grade we had all heard so much of Miss Barr that we were frightened before we began and she quickly lived up to her reputation. I was scared stiff and couldn’t recite but on the written test got a very good mark and was seated in the first seat. When called on after that I still could not recite. She came to me and kindly put her arm around me and from then on it was all right. She was really fair but strict. Any display of affection embarrasses me and I use sarcasm to cover up. 16—I was going with a boy as bashful and shy as I. At a dance his chair tipped over and he pulled me with him. Everyone laughed and we were so embarrassed that he grabbed me and we fled from the hall. We were both miserable. Ever since, I have felt miserable in social situations.

Family:
Mother is the dominant person in our home. She has tremendous will power and high ideals which she demands of everyone. I always thought her incapable of anything wrong. She has a passion for cleanliness and watched us like a hawk. My brother and I were never allowed to enter the living room. For the first seven years of my life it loomed as a secret mysterious place, completely forbidden. The floors were so waxed it was worth your life to walk on them. We were completely restricted from any kind of play whatever. I was shy and content to read on the porch. I buried myself in books. I withdrew more and more. I avoided any sort of crowd. Brother reacted by becoming completely negativistic and a problem child. Inevitably he took this out on little sister and thus started battle royals as he refused to play with her for a long time. Then, suddenly, he changed tactics and became completely oblivious of her existence. This just added to my feelings of inferiority. Between five and eight I was constantly sick. My fifth year was spent almost entirely in the hospital. First measles, then whooping cough and mumps and then I was run over by a car and got a broken leg. The next year scarlet fever and by that time I was so run down the doctor sent me off to a sanitarium. This convinced everyone I was a frail child and on my return began the food stuffing campaign. Meals became an ordeal and I came to dislike all foods. After years of teasing, at 11 I was allowed to go to camp. The independence from mother’s over protection was wonderful and I learned to get along with others. Some of these earlier behaviors are so embedded that even now in college I find it almost impossible to break away from them. I lack initiative and independence
and self sufficiency.

Confidence:
Mother's overprotective attitude and concern for my health has done more to ruin my confidence than any one thing. Everything I had to do because it was good for me. I became a slave to other people and anxious always as to the effect I was having on them. I have no confidence in my own ability to make decisions. In Junior high I had an important part as a pilgrim in a play. I have hay fever and the flowers on stage started me sneezing. The audience roared with laughter and I fled out the door home. The children didn't forget and nicknamed me "sneezzy". I just can't face a group today. Ever after I managed to have a cold or laryngitis when it was necessary to make a speech. I like to write as a sort of compensation for this. This applies to social situations too. I am well known for my letter writing. Usually these are ten or twelve pages long and people are always surprised. I can let myself go that way. As a child I daydreamed of being an author but knew now that I possess neither the ability or originality to succeed. My brother completely turned away from me and I have always had friends my age or younger. Never older. I have always gone with boys my age or younger too. I fear being thought stupid by older ones. Education was strongly stressed by both mother and Dad but no matter how high a grade I got, mother was never satisfied and never praised. Finally, I never tried to do my best because I knew no matter what it would never be good enough.

Inferiority:
I was always over anxious to please everyone. The slightest laugh would set me fearing people were laughing at me. It was all I could do to walk into a room where others were. I was always very exclusive preferring to play alone. In adolescence I shrank from group associations. The thought of being a dull and colorless person tortured me but I could do nothing about it. Mother regarded me as frail and sickly and lavished attention on me. I was never allowed to do anything myself. My own initiative was completely and thoroughly tramped under. I was discouraged from sports or activities although I longed to skate and play tennis etc. I simply felt more inferior in everything. I felt awkward and ungraceful in social activities as well. I felt in everyone's way. It ruined my dancing too, as I was strained and unnatural. I went steady with a boy who was slightly lame about the time others were learning to dance. He wouldn't go near a dance floor. I worked up a dance complex and never wanted to dance. I refused later on to dance with anyone by my escort. Later I met another boy who was a good dancer and who helped me to relax and enjoy it. By this time however, my feelings of inadequacy were too deeply imbedded to be dispelled.

People:
I never could escape mother's hawklike insistence upon everything. Meal times were especially difficult and I sat for hours trying to choke down a roll and a glass of milk. She decided everything. I was pain-
fully self conscious and afraid of people. Mrs. Kane, a neighbor, with a daughter my age convinced mother she should let me go to camp. I had a wonderful time. On my return Mrs. Kane constantly encouraged me to continue my growing up process. At home we were supposed to confine ourselves to the kitchen entirely. My brother's ignoring me hurt me very very deeply and I withdrew even more to myself. I met Bert at my Aunt's in NY. He was everything I was not and our acquaintance blossomed into a romance. When I returned to Syracuse we continued to write and when I was in NY his influence helped me tremendously to make new strides forward in adjustment socially. On entering college I met a girl so like me it is uncanny. We became inseparable friends. We have taken all our courses together since freshman year. We are well aware of the dangers of this attachment and do our best to overcome them. She is brighter than I and stimulates me greatly.

Memories:

On a family trip to the woods, Mariel and I wandered off at the age of four. We were lost and it became dark. We rushed helter skelter about but could not get back to camp. Finally exhausted we lay down only to be awakened by some animal that rushed past us. We screamed and rushed off again and were heard by our fathers and taken home. For weeks I had nightmares of groping and groping in the dark until my parents took us out there again in the day time and a campfire at night. 4½—Daddy brought me a white puppy "snowball". I loved it dearly and forgot all else for several weeks. Then, playing mud pies, snowball got dirty and I dumped him in the rain barrel to wash him off. He struggled desperately and finally as I scrubbed he sank to the bottom. I ran for help but it was too late and Dad buried her. For weeks I tried to discover what had happened to my puppy with no success. 5½—A policeman whom I loved used to carry me across the street to school. I had a new white fur coat and he carried me across and called me "snowball" ever after. After that I shrank from him. My brother was chasing me and called me to stop. I didn't and was hit by a car. With all the neighborhood out I was carried home. Mother who was convalescing came out, took one look, screamed and fainted. I was 5½ at the time and spent four months in a cast. All I had worried about was how it would affect mother. Nothing else mattered. Those months in bed were the finishing touches and I became more quiet and reserved than ever.

Three wishes: War end, health and well being of friends and family, vocational success.

Autobiography:

I longed to be free and to play with other children but never could.
Appendix C

Sample of Matching Instructions

**MATCHING INSTRUCTIONS**

Herewith you are supplied a folder containing the following materials:

(a) 10 summaries of autobiographies.

(b) 10 thumbnail sketches of the same people obtained from interpretation of their T.A.T. stories.

(c) A score slip on which to record your matchings.

**Instructions for Matching**

1. Read carefully an autobiographical summary (marked B), trying particularly to get the general feeling about this person. At the same time, you may find it helpful to make some notes of important factors which might appear in the thumbnail sketches. It is essential to read carefully, as these are summaries and a single sentence may include very important information or attitudes. As you read try to interpret how this person probably feels about other people and factors in his life. Analyze this material as you would a case study with an eye to diagnosis.

2. When you have finished the autobiography, read through the thumbnail sketch (marked T) to find the sketch which best matches this autobiography. Each of these sketches belong to one of the autobiographies you have.

3. Record on the score slip supplied you, the matching you feel is most accurate.

**Suggestion**

You will find that some sketches appear very definite in their matching. Others may seem more vague. Those which are definite may be recorded at once. Those which are vague may be temporarily indicated as belonging with two or three autobiographies. Near the end of your matchings, it will then be possible to go back over these few and make more definite assignments.

**Caution**

(a) The T.A.T. sketches are interpretations of test materials and hence may contain numerous errors. They should be generally interpreted. Definite words may in reality indicate generalities. For example, a person described as Jewish may be of some other minority group, or a statement that a person lives near the ocean may really indicate some other large body of water as a lake, or feelings described toward a brother may mean a sister, etc.
### Appendix D

**DESIRES LIST**

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>safe f</td>
<td>1. Be safe. (indicate object) Desire to be safe from some form of physical threat to security, to be protected from such threat, to avoid physical catastrophe</td>
</tr>
<tr>
<td>help to</td>
<td>2. Be helped to. (indicate object) Desire to be guided or assisted to accomplish a desired end, to be directed, told, shown how, to be dependent upon</td>
</tr>
<tr>
<td>means to</td>
<td>3. Have means to. (indicate object both final and intermediate as: ex. means to live (water) or means to live (food). Desire to have requirements to accomplish end such as job, money, etc.</td>
</tr>
<tr>
<td>status quo</td>
<td>4. Continue status quo Desire to continue present situation or situation just past. Does not refer to continuing personal relationships.</td>
</tr>
<tr>
<td>ment. peace</td>
<td>5. Be at peace mentally Desire to be free from worry, fear, mental turmoil, jealousy, the catastrophe of the unknown</td>
</tr>
<tr>
<td>bel. in</td>
<td>6. Believe in. (indicate object) Desire to believe best about another, to continue faith in, to disbelieve injurious action of another, and to find faith in diesty, etc.</td>
</tr>
<tr>
<td>console</td>
<td>7. Be consolled Desire to be forgiven, comforted, soothed in distress, pardoned, to have made right again. Desire for sympathy, understanding.</td>
</tr>
<tr>
<td>loved by</td>
<td>8. Be loved by. (indicate object) Desire for strong personal intimate response, love relationship, desire for affectional relationship. May include sex implication but not specifically so. To be used more in general sense.</td>
</tr>
<tr>
<td>sex</td>
<td>9. Have sexual relationship with (indicate object) Desire for sex relationship as an end in itself</td>
</tr>
</tbody>
</table>
child

11. To have child or children. (specifically) Not in the sense of keeping but of producing or adopting own. More specific than implied in #10.

relat w

12. Maintain relationships with. (indicate object) Desire to continue relationships, to keep someone for self, to have again a relationship just past as in case of man mourning dead wife. Desire also to avoid separation.

attract

13. Be attractive to. (indicate object) Desire to attract admiration and attention, to attract by beauty, dress, etc. Do not use with #8.

belong to

14. Belong to someone. (indicate object) Desire for companion to share intimate response with, to possess a close companion or friend. Does not imply sex relationships, love relationship or marriage ends. Do not use with #8, #9, or #10.

with

15. To be in company of, near to. (indicate object) Desire to join, be with absent one or to be with group where physical barrier intervenes. Do not use in sense of maintaining relationship or where acceptance is an issue. Do not use with #10, #12, or #22.

assist

16. Assist. (indicate object) Desire to help, aid, assist someone or group in humanitarian sense. Not to be used with #17 or #18.

care for

17. Care for. (indicate object) Desire to minister to needs of child, spouse, or others for whom one has tender feelings. Carry out ambitions for. Involves protect of loved one from harm. Do not use with #18.

protect

18. Protect from. (indicate object) Desire to shield someone or thing from possible harm. Not to be used with #17.

abandon

19. Abandon. (indicate object) Desire to discontinue relationship, to leave, go away from a person, stay away from.

accomplish

20. Accomplish. (indicate object) Desire to bring to pass, effect, finish, complete, produce something noteworthy or satisfactory to self. To create. To become a —
doctor, lawyer, or what not. Use this category only where desire is indicated for itself. Use §21 where personal aggrandizement seems major concern.

resp. 21. Be respected by. (indicate object)
Desire to be important to, to excel, to be looked up to, to receive credit for, to be treated with regard, esteem, etc.

accept 22. Be accepted. (indicate object)
Desire to be included in group, to be welcome, not excluded, to be recognized, be part of the group. To conform. Desire to be like or similar to others in appearance, actions, possessions, etc.

duty 23. Do one's duty.
Desire to do what is morally correct, what one has been taught to do, to live up to one's ideals, to do the "right thing."

adm wish 24. Do what admired person wishes.
Desire to comply with wishes of an admired individual.

av. blame 25. Avoid blame.
Desire to avoid censure, condemnation, reproach, accusation, blame. Desire to avoid humiliation, abuse, mortification.

Desire to avoid physical pain, injury. Do not use with §28 or §1.

av. illness 27. Avoid illness.
Desire to avoid illness. Do not use with §1.

av. death 28. Avoid death.
Desire to live, avoid death. Do not use with §1.

av. restr. 29. Avoid restriction.
Desire to avoid confinement, enshacklement, direction or suppression. Desire to be a free agent, independent, to escape responsibility.

av. struggle 30. Avoid struggle.
Desire to avoid exertion, battle, competition, striving, toil, working for. Desire to submit
punish 31. Punish. (indicate object) Desire to hurt, punish, kill, injure, to strike back at, to attack, destroy, avenge, inflict pain for injury to self or society. Desire to vent rage. May be either verbal or physical.

deatb 32. Die. Desire to die, destroy self, commit suicide.

atone 33. Atone. Desire to humiliate self, debase, degrade, disgrace or punish self. Desire to make amends for, to expiate, or repair damage done by self.

defy con. 34. Defy convention. Desire to openly resist, act in disregard of demands of society. Desire to aggressively defy moral precepts, to punish society by rebellion against social restraint.

know 35. Intellectual satisfaction. Desire to know, be certain of, for knowledge, education, understanding. Desire to commune with God.

sense exp. 36. Seek sensuous experience. Desire to touch, taste, feel, smell, hear. Desire to appreciate music, art, beauty, etc.

play 37. Play. Desire to be active for activity’s sake, to enjoy self, find recreation, amusement, adventure.

control 38. Control. (indicate object) Desire to be in command of, to dominate, direct, restrain, dissuade, govern, force to act, influence another. Use only where primary concern is for self alone. Do not use with #12.

keep 39. Keep. (indicate object) Desire to retain, hold, withhold goods, power, information, etc. Does not apply to personal relationship. Desire to possess a thing, not person.
40. **Overcome weakness.** (indicate object)
Desire to be whole, to overcome weakness, habit, handicap. Desire to be free of physical handicap as blindness, crippled, etc.
Appendix B

ACTION OUTCOME

Key

no f

1. No frustration—desire satisfied

2. Two incompatible desires

choice

makes choice (indicate which)

no choice

makes no choice continues in conflict

3. Desire meets frustration

1. Action directed at the goal

   g. ch. to
   d. g. by

   a. changes goals (indicate new goal)
   b. destroys goal (indicate how destroyed)

2. Action directed at frustration

   att v.

   a. direct attack on frustrating object
      (note verbal or physical and how
      attack is made—ex. robs or tattles)
   b. surmounts frustration indirectly by:
      (1) seeking help from
          (a) person
          (b) diety
          (c) law, etc.
      (2) surmounts in fantasy
          (a) insanity
          (b) daydreams
          (c) vicarious experience (identification)
      whom
   c. submits to the frustration—gives in
      makes no further attempt to solve
   d. accepts temporarily while working out
      solution—yields to the temporary
      situation while seeking further solution
   e. denies barrier—operates in spite of
      barrier
      (1) takes consequences (indicate how
          denies)
      (2) attempts escape consequences

3. Action directed at the motivation

   suicide
   runs away

   a. leaves situation
      (1) self-destruction (indicate how)
      (2) runs away
   b. avoids entering situation
rationalize
self pun.

no act

4. No action
   a. continues in turmoil, no solution no acceptance, no escape

ex res

5. External Resolution
   a. accidental resolution (indicate how) use also for dream stories

ID

6. Insufficient Data
   a. insufficient data to make judgement possible
Appendix F

DIRECTIONS FOR ANALYSIS OF T. A. T. AND AUTOBIOGRAPHY

Marking Analysis Sheets

1. Each of the cooperating judges has been assigned a number. Please be sure to use this number on all analyses.

2. On the analysis sheet supplied you, place this number in the upper right hand corner in the box provided.

3. In the small box in the upper left hand corner, mark a T if you are analyzing a set of T. A. A. stories, B if an autobiography. Follow this with the folder number you are working with; ex.—T-6, B-3, etc.

Judging Instructions for T. A. T.

1. Read the entire T. A. T. story.

2. It is felt that in each story the writer is identifying himself with one of the characters. Encircle the name or word which indicates the individual with whom the author is identifying himself.

   (a) Occasionally, it will be impossible to determine the identification. In such cases do not mark anything.

   (b) Occasionally, you will find a case wherein the writer seems to shift identification. In such cases, indicate the identification most clearly present. In any case, indicate only one.

   (c) In deciding upon identification take into consideration the sex of the writer (female unless your folder is marked M after the number). In a majority of instances, identification will be made to a like sexed character but not always.

3. The Analysis Sheet has been divided into four columns headed:

   Themes, Desires, Conflicts, Outcomes. We shall attempt to obtain these four from the materials in the folder.
4. **Theme:**

A theme is the shortest statement of the plot of a story or incident which still includes all the important elements of the plot. Having read through the story, condense the plot into the smallest possible statement or statements and write this in column #1. Where proper names are used, try to use these. (see attached sample)

5. **Desires:**

Our next task is to determine the nature of the desires which appear to motivate our identified character. To assist you in this we have compiled the **Desires List** attached.

(a) Read through this list of Desires several times before attempting any analyses.

(b) Note particularly the statements defining the desire and the rules for its use.

(c) Do not use any other descriptions than appear on this list. It has been carefully compiled and should cover most possibilities.

(d) With reference to the identified character only, determine what desires seem to motivate his behavior. Ask yourself, "What are the desires or goals toward whose satisfaction this character seems to be striving?" Refer to the Desires List for necessary words and recording key.

(e) Ordinarily, a few desires will cover those in a single story but occasionally these run as high as seven to ten in involved stories.
(f) **Two Cautions**

1. Beware of reading into and interpretation your own feelings or desires or those you would feel in like circumstances. Be as objective as possible.

2. Be sure you can build a case for your choice of a desire in terms of what is said in the story. Beware of making choices beyond what may be justly inferred from what is written.

(g) **Examine the attached sample. Check your own interpretation against this to make sure you have the idea.**

(c) **Crisis**

These may be of two types:

(a) Conflicts between two incompatible desires can be used only when both desires are indicated. These are recorded; 
   ex. rel w / abandon

(b) Thwarting of a desire which meets some obstruction. These are recorded; rel w /f son away in war.

(c) See attached sample.

7. **Outcomes**

The last step in analysis is to indicate the action taken to deal with the "crisis" situation. Possible kinds of Action Outcomes are indicated in the chart supplied you. Study this chart carefully before attempting to put it into use.

You will note it is divided into the six general types of descriptions you will be likely to meet.
1. No frustration
2. Two incompatible desires
3. Frustration situation
4. Insufficient data to make judgment

Decide which of these fits your particular case and record by means of the key the action outcome of the conflict you have analyzed. See attached sample.

8. Having completed the analysis of the first story, draw a line across the page and begin the next.

Judging Directions for Autobiography

1. You will find that autobiographies have been divided into incidents for analysis and marked off in blue pencil.
2. Each incident is to be analysed exactly as though it were a single T. A. T. story as described above.

Practice Analysis

After reading these instructions carefully you will be asked to make a number of practice analysis with the author. This will assist you to properly make analyses and will give opportunity to clarify questions which may arise in making your interpretations.
<table>
<thead>
<tr>
<th>Story</th>
<th>THEMA</th>
<th>DESIRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Boy told of father's success, becomes even greater success, marries, has a son who carries on this tradition and dies</td>
<td>acc-- respect adm w</td>
</tr>
<tr>
<td>2</td>
<td>Girl wishes to escape from her family. Goes to the city. Returns to find herself in great disfavor with her family.</td>
<td>av rest play acc</td>
</tr>
<tr>
<td>3</td>
<td>Orphan girl turned out of her home is destitute. Friends give her address in Red Light district. Girl shocked, flees back to her lonely room.</td>
<td>means to live av blame duty</td>
</tr>
<tr>
<td>4</td>
<td>Husband is success, then is accused of theft. Wishes to leave town but wife convinces him to go to police. He is cleared.</td>
<td>protect husband relat w husband duty</td>
</tr>
<tr>
<td>5</td>
<td>Mother bursts in upon smoking daughter. She has attempted a great deal of control. Daughter forces showdown and mother realizes she is no longer a child.</td>
<td>av rest accept</td>
</tr>
<tr>
<td>6</td>
<td>Spy caught by FBI will not reveal names of accomplices, is imprisoned.</td>
<td>duty to country accept protect</td>
</tr>
<tr>
<td>7</td>
<td>Girl's mother and father quarrel. Maid attempts to get child's mind off quarreling. Child pleads with parents, becomes ill. Parents become reconciled.</td>
<td>safe relat w control</td>
</tr>
<tr>
<td>8</td>
<td>Woman waits in hospital for husband mutilated in battle fearful of how he will look. He comes out--looks fine.</td>
<td>relat w care for mental peace</td>
</tr>
<tr>
<td>9</td>
<td>Two girls love same man. Subject sees rival say good bye to man. Realizes faithlessness of men. Becomes an old maid.</td>
<td>loved by relat w believe in</td>
</tr>
<tr>
<td>10</td>
<td>Boy leaves girl to care for aged father while he goes off to war. Returns and marries girl. They have put off immediate marriage.</td>
<td>married to relat w duty</td>
</tr>
<tr>
<td>11</td>
<td>Vultures chase prey to present to creature in cave. No one ever knows what happens to prey.</td>
<td>not clear</td>
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<td>CONFLICTS OR THWARTINGS</td>
<td>ACTION OUTCOMES</td>
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<td>acc resp adm w</td>
<td>dreams accept</td>
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<td>av rest play acc means</td>
<td>deny b.t.c.</td>
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<td>protect relat w duty</td>
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<td>12</td>
<td>Self righteous, wealthy WCTU member and her real self--vicious and cruel. Becomes more like self as she grows older. Her benevolence is really an act.</td>
<td>av rest resp duty av blame control</td>
</tr>
<tr>
<td>13</td>
<td>Boy and girl marry against parent's wishes. Settle in boom town poverty. Girl gets job, becomes run down, dies. Boy blames self for. He returns home and is forgiven by her parents.</td>
<td>married relat w means to live stone</td>
</tr>
<tr>
<td>14</td>
<td>Boy desires to marry girl. Does not know what parents will think. Finally asks them, they approve, meet girl. They become engaged.</td>
<td>married adw accept duty</td>
</tr>
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<td>15</td>
<td>Old negro preacher looks at wife's grave and muses on good life they had. He too dies.</td>
<td>relat w</td>
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<td>16</td>
<td>Daughter of &quot;blessed&quot; people reared by nurse disapproves of showing horses. Loves animals and wants freedom for them. Marries boy who feels same and leads simple life with.</td>
<td>loved by assist married</td>
</tr>
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<td>17</td>
<td>Orphan adopted by wealthy man falls in love with man's nephew. Uncle sends away. Girl in despair reveals she is pregnant and considers suicide. Nephew arrives in nick of time and takes her away to happy home.</td>
<td>loved by married relat w av blame</td>
</tr>
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<td>18</td>
<td>Woman, member of underground hiding nephew. He dies in her arms. She is burying him when the Gestapo arrives--.</td>
<td>duty assist safe</td>
</tr>
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<td>19</td>
<td>A dream--the wind is conscience. The windows mother and father, one more domineering than the other. Home struggles to keep even line. Storm constantly blowing. Eyes of the future watch.</td>
<td>ment peace</td>
</tr>
<tr>
<td>20</td>
<td>Man about to join Chicago racketeers is to be picked up on corner. Waits long. Sees paper--gang have all been caught.</td>
<td>means defy con. accept safe</td>
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<td>CONFLICTS OR THWARTINGS</td>
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<td>f family mistreats</td>
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<td>Four star auto accident. Just got driver's license. Succeeded in getting car and going after friend. Passing truck—skidded—hit pole-wrecked car. Mother had told me to be careful and &quot;not be smart&quot;. I have been in hot water with my family ever since I can remember. The family never forgave me. They never trust me with responsibility. I avoid all situations where driving is necessary now.</td>
<td>acc—to drive resp—of family av blame—of family safe—from hurt</td>
<td></td>
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<tr>
<td>Called &quot;four eyes&quot; in school, wore ugly braces on teeth, orthopedic high shoes and a plain dutch bob. But I could play the piano by ear and got to go to parties thru that. Has helped me much to get along.</td>
<td>attract accept—by fellows overcome handicaps</td>
<td></td>
</tr>
<tr>
<td>Three children—I was the middle and always picked on. I had to clean the tub, run errands, was punished, made to practice longer etc. Everything blamed on me. It was tough. Jim older, Carol younger—they couldn't have done it.</td>
<td>av. blame av. rest.</td>
<td></td>
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<tr>
<td>Mother was very intolerant and had a very bad temper. I have too. I used to fight her all the time until my aunt pointed out I should not cross her. I tried—it worked. I'm thankful to my aunt.</td>
<td>av. rest. punish—mother</td>
<td></td>
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<tr>
<td>Have learned to control a wicked temper. Used to flare up easily. Threw eraser once at a teacher who accused me falsely. I'd slam things etc.</td>
<td>av. blame av. rest</td>
<td></td>
</tr>
<tr>
<td>12—sent to camp. Was small for age and put in group of younger girls—young as seven. Home sick and hurt and wrote frantic letters home. Mother came—it was worse—but she left me there. I became an A-1 brat, wrote threat letters, tried to run away etc. Dad finally sent for me. They had me read one of the director's letters to my parents in which he said I was destined to grow up bad. I made up my mind I would not.</td>
<td>safe helped loved—parents relat w—parents resp. av. rest</td>
<td></td>
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<tr>
<td>I have been unable to prove it till now. Stayed in Syracuse last summer and worked. Cooked etc. with two room mates. Family said I could never earn a nickel. Dad was pleased, I had lots of fun.</td>
<td>resp. accept. av. rest acc—held job</td>
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<td>CONFLICTS OR THWARTINGS</td>
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<td>acc</td>
<td>avoid--such situations</td>
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<td>resp</td>
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<td>care for f accident brings family disapproval</td>
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<td>av blame</td>
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<td>attract</td>
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<td>accept</td>
<td>g. ch. to piano playing</td>
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<td>overcome f wear special and handicap unattractive clothes</td>
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<td>av blame</td>
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<td>blamed and forced f by family to do things</td>
<td>attack</td>
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<td>av rest</td>
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<td>f mother bad temper--forces</td>
<td>attack</td>
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<td>punish</td>
<td>accept</td>
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<td>f makes unhappy</td>
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<td>av blame</td>
<td>attack</td>
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<td>av rest</td>
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<td>f teacher blames</td>
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<td>safe</td>
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<td>homesick and deserted f at camp</td>
<td>attack</td>
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<td>helped</td>
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<td>av rest, loved</td>
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<td>resp</td>
<td>forecast of bad future</td>
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<td>relat w f shocks</td>
<td>attack</td>
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<td>resp</td>
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<td>accept f not accepted by family</td>
<td>attack</td>
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<td>av rest</td>
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<tr>
<td>3a The woman I work for now told me &quot;you won't get far until you get more self confidence&quot;.</td>
<td>acc—goals resp—by others</td>
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</tr>
<tr>
<td>3b Piano recitals over WMAF helped give self-confidence. I usually made a mess of it but did it. Mother hated public exhibitions but I was in many skits etc.</td>
<td>acc resp.</td>
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<tr>
<td>3c When I have had an awful struggle and succeed I feel confident. Shorthand--had to drop and repeat. I finally got it and felt good.</td>
<td>acc av blame—failure</td>
<td></td>
</tr>
<tr>
<td>3d I love mother dearly but she made life tough for me—so did father but not so much. They said I was &quot;just dumb&quot;. My faculty adviser in HS told them it was a waste of money to send me to college. I had a showdown and carried on great fits and asked for a chance. Am a senior now, not brilliant but successful. I'm going back to that adviser with my sheepskin and tell him I</td>
<td>av rest acc resp av blame punish</td>
<td></td>
</tr>
<tr>
<td>4a I feel inferior about school work. I never know how to concentrate. My family stuck me way back in the back part of the house, no radio and told to study. I had beautiful day dreams when I was supposed to study.</td>
<td>accept acc av rest</td>
<td></td>
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<tr>
<td>4b Gr. sch.—a fight every time grades came out. Many spankings and buckets of tears. Worst spankings I got were for low grades.</td>
<td>acc accept av blame loved</td>
<td></td>
</tr>
<tr>
<td>4c I picked up when I changed schools but in HS it was the old story again. Too many activities. Was sent off to prep school bag and baggage. I was put in non-college sequence. I cringe at words &quot;marks, exams, grades etc&quot;.</td>
<td>acc accept av blame rel with</td>
<td></td>
</tr>
<tr>
<td>4d I felt inferior about my glasses. I was the first in the crowd to get them. I broke them regularly but still have to wear them. Almost blind in one eye.</td>
<td>attract accept av rest</td>
<td></td>
</tr>
<tr>
<td>4c I had infantile when I was a child—it left a little defect. When my back aches I put on my orthopedics. The girls all laugh—I too—but am terribly hurt and soon put on regular shoes again.</td>
<td>accept attract av blame</td>
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<td>acc resp f criticism give pause</td>
<td>I.D.</td>
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<td>acc resp no frustration</td>
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<td>acc av blame f fear of not succeeding</td>
<td>attack</td>
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<td>av rest acc faculty adviser and</td>
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<td>resp f parents discourage</td>
<td>attack</td>
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<td>av blame punish</td>
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<td>accept acc f family forces and</td>
<td>dreams</td>
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<td>av rest segregates</td>
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<td>acc accept spanked for poor</td>
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<td>av blame f school grades loved</td>
<td>I.D.</td>
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<tr>
<td>acc accept</td>
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<tr>
<td>av blame f marks low--sent to relat w prep school</td>
<td>I.D.</td>
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<td>attract accept f must wear glasses</td>
<td>attack</td>
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<tr>
<td>av rest</td>
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<td>accept must wear special and attract f homely shoes at times</td>
<td>d.b.t.c.</td>
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<td>av blame</td>
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<tr>
<td>5a My greatest adjustment has been to keep peace in the family. I had a bad temper like mother. Aunt Dot helped. She was college grad and I looked up to. She usually said just what I was thinking.</td>
<td>adm w accept acc helped</td>
<td></td>
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<tr>
<td>5b Mother is a wonderful person but hard on me. I had a hard time getting along with her. My grandfather used to take me for long walks and talk about how things were going. He helped a lot. For any maladjustment I have mother is first responsible and after that my father. A race between them. Mother was most domineering. Brother was quiet and hated scenes.</td>
<td>accept av rest loved</td>
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<tr>
<td>6a Just started Sunday School—remember lying on front steps with brother and calling to sky for Daddy and God alternately—guess I was confused.</td>
<td>know</td>
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<tr>
<td>6b I was flower girl and brother ring bearer at aunt’s wedding. Down aisle. Br said throw petals but flowers were wired to basket. I tugged and spilled water on him. We fought all down the aisle. Father took us home at once and whipped us both.</td>
<td>acc adm w</td>
<td></td>
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<tr>
<td>6c Br went to school, I went to nursery school. I was lonesome. At recess rushed to his room and held hand till time to go back.</td>
<td>relat w acc</td>
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<tr>
<td>6d Was an awful brat. In SS told a girl to stop singing she couldn’t carry a tune. She wept—told mother and I was spanked.</td>
<td>av rest accept av blame</td>
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<tr>
<td>6e Saw school mate run over by truck in 2nd grade. Ran and told teacher. Don’t think hit me hard—guess just proving my independence by taking over—or maybe just stunned.</td>
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<tr>
<td>6f Want to be married soon, have children and security. You can only get that by having someone who is all your own. Someone you can trust and turn to. I will see that my children are happy and not dominated completely. I wish for security and happiness which equals marriage to me.</td>
<td>married safe child loved helped</td>
<td></td>
</tr>
<tr>
<td>7a Early life in house owned by grandnf. Father was a physician interned with grandnf. We lived near them. My brother is 18 months older. We were very close and always together. 4—moved to present home across the lake. Always boat at dock. All my early memories are about my family—my aunts’ weddings, brothers illness, birth of sister, mother very ill of puerperal fever—brother and I to grandmother’s—we were very happy there.</td>
<td></td>
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<tr>
<td>CONFLICTS OR THWARTINGS</td>
<td>ACTION OUTCOMES</td>
<td></td>
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<tr>
<td>-------------------------</td>
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<td></td>
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<tr>
<td>adm w accept own bad temper conflicts</td>
<td>s.h. from aunt</td>
<td></td>
</tr>
<tr>
<td>acc f with mother's</td>
<td></td>
<td></td>
</tr>
<tr>
<td>helped</td>
<td></td>
<td></td>
</tr>
<tr>
<td>accept can't get along with f mother</td>
<td>s.h. from grandfather</td>
<td></td>
</tr>
<tr>
<td>av rest loved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>know f confused</td>
<td>attack</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>acc f can't accomplish part</td>
<td>attack</td>
<td></td>
</tr>
<tr>
<td>adm w f spoiled show</td>
<td>ext. res.</td>
<td></td>
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<tr>
<td></td>
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<tr>
<td>relat w acc f separated from brother</td>
<td>accept</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>av rest f girl sings badly</td>
<td>attack</td>
<td></td>
</tr>
<tr>
<td>accept</td>
<td>I.D.</td>
<td></td>
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<tr>
<td>av blame f parent punishes</td>
<td></td>
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<td>?</td>
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</tr>
</tbody>
</table>

married

safe

child wishes specifically asked for as conflicts are not treated

loved

helped
<table>
<thead>
<tr>
<th>THETHA</th>
<th>DESIRES</th>
</tr>
</thead>
</table>
| 7b Hard time learning to read. Report cards were evil things. I tried hard but lacked concentration. | acc  
  av blame |
| 7c New school—parents hoped we would be good students—but had to be prodded constantly. | adm w. |
| 7d Much underweight and nervous. Specialist said danger of breakdown—family thought ridiculous—gave sun lamp treatments. I constantly worried about making them angry. Father was not easily upset but when he was—I Mother upset all the time. In constant fear of upsetting both of them. | safe  
  ment peace  
  loved by  
  accept  
  av blame |
| 7e Music lessons at six. Did not like to practice. Father violin, mother piano players. Have perfect pitch and good ear. Hear once, I can play. Ray of hope to family but not the career for me. | accept  
  respect  
  adm wish  
  av rest |
| 7f Loved my father's work—doctor. Ate up. Left with nurse once who gave nurses outfit—biggest thrill of life. Went with father to operation once—wanted to be nurse from then on but parents frowned on. I still want to even now in Bus. Ad. This is only way I can get into a hospital or doctor's office. Will never be satisfied with straight secretarial work. | acc—be nurse |
| 7g Heart to heart talk with father—started HS. I was lost among 1800 students. I failed every course. I was never allowed out. Was put in room to study but couldn't concentrate. | acc  
  adm w  
  helped  
  accept  
  av blame |
| 7h Sent off to school as parents could do nothing with me. School for misfits and unwanted children. I did well. Rude awakening re sex etc. Came home wise and shocked parents. | acc  
  accept |
| 7i Mother kept home under her eagle eye next year. Had bad time in public school again. Loved biology but that's all. | acc  
  accept  
  av blame |
| 7j Had few dates under eagle eye of mother. No love life—because they did not approve. I fought with her constantly. Managed to have a good time though. | accept  
  loved  
  attract |
| 7k Always on the go. Parents feared get out of hand and affect sister. Sent to Quaker School. Was there three wonderful years. Cheerleading, acting, music, chorus. I proved to myself I was capable of something. Marks—mostly superior. | loved  
  acc  
  accept  
  resp  
  av blame |
<table>
<thead>
<tr>
<th>CONFLICTS OR THWARTINGS</th>
<th>ACTION OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>acc av blame f report cards force to face failure</td>
<td>I.D.</td>
</tr>
<tr>
<td>adm w f disappoint parents</td>
<td>I.D.</td>
</tr>
<tr>
<td>sure ment peace loved by f mothers and makes all unhappy accept av blame</td>
<td>avoid</td>
</tr>
<tr>
<td>accept resp no frustration</td>
<td></td>
</tr>
<tr>
<td>adm w f must practice</td>
<td>I.D.</td>
</tr>
<tr>
<td>acc--be nurse f parents disapprove</td>
<td>g.ch. to Business Administra-</td>
</tr>
<tr>
<td>acc adm w helped f failed again</td>
<td>no action</td>
</tr>
<tr>
<td>accept</td>
<td></td>
</tr>
<tr>
<td>acc accept no frustration</td>
<td></td>
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<tr>
<td>acc accept f fear of failure</td>
<td>attack</td>
</tr>
<tr>
<td>acc accept blame</td>
<td></td>
</tr>
<tr>
<td>accept loved by attract mother and father watch f closely and restrict</td>
<td>I.D.</td>
</tr>
<tr>
<td>loved by sv blame</td>
<td></td>
</tr>
<tr>
<td>acc f sent away by parents</td>
<td>accept</td>
</tr>
<tr>
<td>accept resp no frustration</td>
<td></td>
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<tr>
<td>THEMA</td>
<td>DESIRES</td>
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<tr>
<td>7l</td>
<td>accept</td>
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<td>av blame</td>
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<td></td>
<td>adm w</td>
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<td>safe</td>
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<td>loved</td>
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<td>accept</td>
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<td></td>
<td>av blame</td>
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<td>7o</td>
<td>acc</td>
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<td></td>
<td>accept</td>
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<td></td>
<td>av rest</td>
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<td>7p</td>
<td>acc</td>
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<td></td>
<td>accept</td>
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<td></td>
<td>av blame</td>
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<td>7q</td>
<td>acc</td>
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<tr>
<td></td>
<td>av blame</td>
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<td></td>
<td>safe</td>
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<tr>
<td>7r</td>
<td>loved</td>
</tr>
<tr>
<td></td>
<td>married</td>
</tr>
<tr>
<td>7s</td>
<td>My life has been full of family. I have learned by their mistakes. My temperament had a bad start.</td>
</tr>
<tr>
<td>CONFLICTS OR THWARTINGS</td>
<td>ACTION OUTCOMES</td>
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<tr>
<td>--------------------------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>accept</td>
<td>accept</td>
</tr>
<tr>
<td>av blame</td>
<td>f own acts make situation worse</td>
</tr>
<tr>
<td>adm w</td>
<td></td>
</tr>
<tr>
<td>safe</td>
<td></td>
</tr>
<tr>
<td>loved by</td>
<td>no frustration</td>
</tr>
<tr>
<td>attract</td>
<td></td>
</tr>
<tr>
<td>acc</td>
<td>told not possible to</td>
</tr>
<tr>
<td>accept</td>
<td>f go to college</td>
</tr>
<tr>
<td>av blame</td>
<td>attack</td>
</tr>
<tr>
<td>acc</td>
<td>no frustration</td>
</tr>
<tr>
<td>accept</td>
<td></td>
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<td>av rest</td>
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<tr>
<td>acc</td>
<td>no frustration</td>
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<td>accept</td>
<td></td>
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<tr>
<td>av blame</td>
<td></td>
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<tr>
<td>acc</td>
<td>accept</td>
</tr>
<tr>
<td>av blame</td>
<td>f failing grades</td>
</tr>
<tr>
<td>safe</td>
<td></td>
</tr>
<tr>
<td>loved by</td>
<td>no frustrations</td>
</tr>
<tr>
<td>married</td>
<td>f war interferes</td>
</tr>
</tbody>
</table>
Appendix I--1

Sample Check Sheet for Validity Experiment as Marked by Judge #1

CHECK EXPERIMENT

In this experiment you are asked to make certain judgments of materials on the Thematic Apperception Test. Your cooperation is deeply appreciated.

The following materials are supplied you:

1. A set of T.A.T. pictures
2. A set of stories written by a subject—one for each picture
3. A list of desires and their definitions
4. A check list of desires for each picture.

You are asked:

1. To read through the desires list
2. Study a story, look at the picture on which it was written. (You may refer to it as much as you wish)
3. Identifying yourself with the character indicated, decide whether you agree (A) or disagree (D) that the desire indicated is a reasonable interpretation of the character's desires in this story. Please mark your judgement beside the desire you are considering.

Several samples are supplied you for practice and in which you may discuss points with the experimenter before proceeding on the experiment proper.

PRACTICE SAMPLES

<table>
<thead>
<tr>
<th>Picture #</th>
<th>Identify With</th>
<th>Desires</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>John</td>
<td>a play, a respect, a means, a accepted, a avoid struggle, a avoid blame, a death</td>
</tr>
<tr>
<td>Picture #</td>
<td>Identify With</td>
<td>Desires</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>4</td>
<td>Joe</td>
<td>a abandon wife</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a loved by Mrs. Carter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d console by Mrs. Carter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a respected</td>
</tr>
<tr>
<td>5</td>
<td>Grandmother</td>
<td>a relation with Tommy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a care for child</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a mental peace</td>
</tr>
<tr>
<td>2</td>
<td>Anna</td>
<td>d avoid restriction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a sense experience</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a status quo</td>
</tr>
</tbody>
</table>

Please ask any questions here. Beyond this point, no questions may be asked.

In the following list, mark each desire as to whether you agree or disagree that it represents a reasonably valid interpretation of the character's desire.

Disregard line under certain words—this is for the examiner's use only.

<table>
<thead>
<tr>
<th>Picture #</th>
<th>Identify With</th>
<th>Desires</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Joe</td>
<td>a means to play</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a accomplish</td>
</tr>
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<td></td>
<td></td>
<td>a respected by people</td>
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<td></td>
<td></td>
<td>a accepted</td>
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<tr>
<td></td>
<td></td>
<td>o d admired p. wishes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a avoid restriction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a sense experience</td>
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<tr>
<td></td>
<td></td>
<td>a play</td>
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<tr>
<td></td>
<td></td>
<td>a avoid blame of fellows</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o d be safe from injury</td>
</tr>
<tr>
<td>2</td>
<td>Maida</td>
<td>a means to get man</td>
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<tr>
<td></td>
<td></td>
<td>a loved by man</td>
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<tr>
<td></td>
<td></td>
<td>a attractive to man</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a avoid blame</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a do duty</td>
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<tr>
<td></td>
<td></td>
<td>a know</td>
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<td></td>
<td></td>
<td>o d sex experience</td>
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<tr>
<td></td>
<td></td>
<td>o d avoid restriction</td>
</tr>
<tr>
<td>Picture #</td>
<td>Identify With</td>
<td>Desires</td>
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<tr>
<td>3</td>
<td>Marian</td>
<td>a loved by&lt;br&gt;a married&lt;br&gt;a sex relations&lt;br&gt;a abandon man&lt;br&gt;a overcome weakness&lt;br&gt;o d to believe in&lt;br&gt;o d relations with</td>
</tr>
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<td>4</td>
<td>John</td>
<td>a mental peace&lt;br&gt;c d married to Mary&lt;br&gt;a relations with Mary&lt;br&gt;a care for Mary&lt;br&gt;a accomplished in art&lt;br&gt;a duty&lt;br&gt;c d avoid blame&lt;br&gt;a sense experience&lt;br&gt;a control situation&lt;br&gt;a respected&lt;br&gt;a means to fame&lt;br&gt;a avoid restriction of memory</td>
</tr>
<tr>
<td>5</td>
<td>Mrs. Nolan</td>
<td>c d safe&lt;br&gt;a loved by husband&lt;br&gt;a maintain relations with husband&lt;br&gt;a be accepted&lt;br&gt;c d married&lt;br&gt;a care for child&lt;br&gt;a avoid restriction of other woman</td>
</tr>
<tr>
<td>6</td>
<td>wife</td>
<td>a means&lt;br&gt;a married&lt;br&gt;c d abandon husband&lt;br&gt;c d duty&lt;br&gt;? d avoid blame&lt;br&gt;a loved</td>
</tr>
<tr>
<td>7</td>
<td>child</td>
<td>a abandon mother&lt;br&gt;? d avoid blame&lt;br&gt;a avoid restriction&lt;br&gt;a punish mother&lt;br&gt;a play</td>
</tr>
<tr>
<td>8</td>
<td>girl</td>
<td>a safe, secure&lt;br&gt;a means&lt;br&gt;a loved by artist&lt;br&gt;a duty&lt;br&gt;a avoid blame&lt;br&gt;a accepted&lt;br&gt;a avoid restriction of job</td>
</tr>
<tr>
<td>Picture #</td>
<td>Identify With</td>
<td>Desires</td>
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<td>-----------</td>
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<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>9</td>
<td>governess</td>
<td>a means&lt;br&gt;a loved by someone&lt;br&gt;a sex experience&lt;br&gt;a attractive to&lt;br&gt;c d avoid blame&lt;br&gt;a punish</td>
</tr>
<tr>
<td>10</td>
<td>Mrs. E.</td>
<td>a mental peace&lt;br&gt;a relations with son&lt;br&gt;a loved by wife&lt;br&gt;a care for child&lt;br&gt;a married</td>
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<td>11</td>
<td>flyers</td>
<td>a avoid death&lt;br&gt;a means to reach civilisation&lt;br&gt;a avoid restriction&lt;br&gt;a safe</td>
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<td>Mrs. S.</td>
<td>a control&lt;br&gt;c d status quo&lt;br&gt;c d mental peace&lt;br&gt;a respect&lt;br&gt;a duty&lt;br&gt;c d avoid blame&lt;br&gt;a avoid restriction&lt;br&gt;a means to achieve&lt;br&gt;a attractive</td>
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<tr>
<td>13</td>
<td>Mort</td>
<td>a loved by women&lt;br&gt;a sex experience&lt;br&gt;a relations with Sylvia&lt;br&gt;a avoid restriction&lt;br&gt;a play&lt;br&gt;a attractive to women&lt;br&gt;a respect&lt;br&gt;a married to Sylvia&lt;br&gt;c d avoid blame</td>
</tr>
<tr>
<td>14</td>
<td>Sam</td>
<td>a means to success&lt;br&gt;a accomplish&lt;br&gt;a care for son&lt;br&gt;a relations with son&lt;br&gt;a avoid restriction&lt;br&gt;a play</td>
</tr>
<tr>
<td>Picture #</td>
<td>Identify With</td>
<td>Desires</td>
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<tr>
<td>15</td>
<td>Silas</td>
<td>c d know&lt;br&gt;a play&lt;br&gt;c d avoid restriction&lt;br&gt;a accomplish&lt;br&gt;c d avoid death&lt;br&gt;a avoid struggle&lt;br&gt;a avoid blame&lt;br&gt;a mental peace&lt;br&gt;l d loved by someone</td>
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<td>16</td>
<td>Mary</td>
<td>a means to - make Tom see&lt;br&gt;a loved by Tom&lt;br&gt;a married to Tom&lt;br&gt;a attractive to Tom&lt;br&gt;a accepted&lt;br&gt;c d avoid restriction&lt;br&gt;a respect</td>
</tr>
<tr>
<td>17</td>
<td>girl</td>
<td>c d relations with father&lt;br&gt;a punish father&lt;br&gt;c d avoid restriction&lt;br&gt;a mental peace&lt;br&gt;a safe</td>
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<td>18</td>
<td>maid</td>
<td>c d avoid blame&lt;br&gt;a punish&lt;br&gt;a avoid restriction&lt;br&gt;c d alone&lt;br&gt;a safe</td>
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<tr>
<td>19</td>
<td>child</td>
<td>c d safe</td>
</tr>
<tr>
<td>20</td>
<td>Matt</td>
<td>c d helped to&lt;br&gt;a means to live&lt;br&gt;a mental peace&lt;br&gt;c d relations with family&lt;br&gt;a abandon father&lt;br&gt;a respect&lt;br&gt;c d avoid blame&lt;br&gt;a avoid restriction&lt;br&gt;a punish father&lt;br&gt;a play&lt;br&gt;c d status quo&lt;br&gt;a safe</td>
</tr>
</tbody>
</table>
AUTOBIOGRAPHY

I, Arthur Wright Combs, was born in Newark, N.J. June 3, 1912. I attended grammar school and three years of high school in that city. In 1930 I graduated from Postoria High School, Posthoria, Ohio and entered Cornell University. After three years at Cornell, the depression forced me to seek employment in various capacities for a year. I returned to Ohio State University in 1934 and received my B. Sc. in Ed. in 1936. After several years of teaching I became a school psychologist at Alliance, Ohio. I re-entered Ohio State University in 1941 as a teaching assistant in the Department of Psychology. I received my M.A. degree in 1941 also. I remained at Ohio State a year and a half except for one quarter spent as civilian psychologist at the Army Induction Station, Huntington, W.Va. In March, 1943, I accepted a position as Instructor in Psychology at Syracuse University and became Assistant Professor of Clinical Psychology there in 1944. At Syracuse University, I organized and established the Syracuse University Mental Hygiene Service, a psychological clinic serving the community and the campus. In addition to my teaching duties I became Director of the Mental Hygiene Service in the Fall of 1944.