

and communication vectors that actually exist in his family may be reflected, but the test offers no opportunity for verifying the authenticity of these forms of behavior. Thus, interpretations of the family life must be cautiously advanced and tested against reality through observation of other members of the family, especially as they interact. Because the test carries a title that might imply that it is a potential source of information about families, it might be well to recognize that it is essentially a test of a child's attitudes toward his parents and sibs. It does not tap attitudes of all members of a family, and thus does not yield data on habits of mind in all the various interrelationships, e.g., between parents, between parents and children. More precisely, it might be called a test of attitudes toward family rather than a test of family attitudes.

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Thematic Apperception Test. Ages 4 and over; 1936-43; commonly known as TAT; individual; 1 form ('43); no data on reliability; \$6 per set of test materials; 50¢ per manual ('43); cash orders postpaid; 100(120) minutes in 2 sessions 1 day apart; Henry A. Murray; Harvard University Press. * (*TAT Summary Record Blank*, 1952; \$1.55 per set of 35 record blanks and manual, postage extra; 20¢ per specimen set, postpaid; Pauline G. Vorhaus; World Book Co. *)

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It was the impression of the reviewer in *The Fourth Mental Measurements Yearbook* that in the busy clinic the use of the TAT was largely a luxury, since the material obtained by use of this rather "tedious and time-consuming technique" could be more efficiently obtained in a personal interview. He saw the possibility, however, that "with the development of useful scoring systems, such as that of Aron (154), and the establishment of empirically verified principles of interpretation, the test will achieve distinctive value as a psychodiagnostic instrument."

Over the last five years much research with the TAT has been published, but it is still doubtful that its utility as an efficient clinical tool has been established and it is uncertain whether the amount of time necessary to evaluate all the nuances of the TAT protocol could not better be spent in other pursuits in behalf of the patient. Aron's scoring system, which is an elaboration and development of the Murray scheme described in the test manual, has proved no boon to the clinician. She reports that a minimum of 10 minutes is required for scoring each story, making it hardly likely that her system can be used economically in the clinic. One complication is that needs and press are scored for everybody in the story, not just the hero. Although this may eliminate the arbitrary judgment sometimes needed in selecting a hero, it makes the

whole procedure that much more unwieldy. The lack of normative and validation data, except for a few hints in studies with very small numbers which did not permit statistical differentiation of groups, as well as the questionable method used in establishing reliability of scoring categories, also makes one hesitate to recommend the Aron scoring procedure for clinical use. It is unlikely that a busy clinician could make more than an impressionistic analysis of the patient's TAT protocol, especially when it is just one of a battery of tests used in psychodiagnosis. As a timesaving device, group administration of the TAT has been attempted and it has been found that the stories yielded in group administration do not differ significantly in very many ways from stories obtained in routine individual administration (260, 497). Multiple choice answers and objective scoring have been tried (40, 477, 487), but not with too much success, at least for clinical use. In the clinic where patients usually are seen individually and where the clinician is interested in analyzing more than just one or two needs or traits which are being manipulated experimentally or otherwise, it is doubtful that the group method can be adapted in such a way that it would serve as an efficient, timesaving method and, at the same time, give sufficient information about the subject to be of value.

Benton's second condition has not been fulfilled either. Unfortunately, research has not yielded verification of principles of interpretation which have been reported as successful in the clinic. For example, the traditional "signs" of anxiety in TAT stories have been shown to have little or no relationship to independent "clinical" observation of anxiety in the subjects (451, 580). The same can be said of many other "signs" which have been reported to be clinically useful but which, on independent empirical testing, fall short of validation (204, 503).

Although the usefulness of the TAT as a routine clinical tool has not yet been demonstrated, as a research technique it has had wide and successful application. A number of scoring schemes of good reliability have been introduced (204, 473, 481) and rating scales have been developed which make TAT productions amenable to sound statistical handling without sacrificing too much in the way of clinical judgment (206, 369, 372, 468, 573). These scales have been used in a variety of investigations, both into personality processes, and into the na-

ture of the psychological act of telling stories in response to pictures (299, 362, 438, 494, 516, 521, 529).

It cannot be assumed that, because the subject is presented with an ambiguous picture about which he is instructed to make up a story, the content of his productions will be determined solely, or even chiefly, by his own needs and attitudes. In fact, a number of studies have shown either an inverse or, at best, a curvilinear relationship between degree of ambiguity of stimulus picture and extent of personality factors involved in the response (204, 398, 446). It has been amply demonstrated that each of the pictures has its own "pull" in terms of the thematic content and emotional tone of stories told in response to it. Most of the pictures routinely elicit sad stories, and there are reliable differences among the pictures as to the degree of dysphoric affect, productivity of material, themes, level of response, need systems, etc., which they evoke (204, 206, 251, 369, 585). The outcome of the stories, however, is one variable which seems to be based more on interpersonal dynamics (204, 299). Stereotyped responses for each of the cards have been described and a fair amount of normative data is now available (147, 175, 204, 388, 538).

Aside from the stimulus properties of the cards themselves, a number of other variables extraneous to the personality content of the individual subject contribute to a determination of both the formal and the content aspects of the productions. The interaction between the examiner and the subject is important. Although it is assumed that the results are a representation of an individual's private fantasy, it has been shown that the mere presence of an examiner, whether the stories are orally administered or written down by the subject himself, is an inhibiting factor in the production of strongly emotional material on the TAT (521). However, the more the subject is made to feel that he is in a permissive, accepting, noncritical, nonevaluative situation, the more likely is he to contribute fantasies which approximate his unshared ideation and imagery. The examiner can no doubt control some of this atmosphere by the instructions he gives and the manner in which he gives them, by the extra-test comments he makes, and by his general demeanor. There are other factors, however, which are immutable and cannot be changed by the examiner, e.g., sex, age, race, social status, and intel-

ligence. All of these variables have been shown to affect TAT productions, especially when there are differences in them between the subject and the experimenter (331, 403, 411, 462, 501, 549).

Quite apart from the kinds of stories elicited by different examiners is the effect of the examiner on the interpretation of the stories which are made. No systematic study of this kind of confounding has been reported, although many authors have warned of the danger of the experimenter's injecting his own theoretical bias, personality shortcomings, and predilections into the interpretations. Davenport (329) found little agreement among six clinical psychologists in their application of 207 statements previously rated for ambiguity, etc., to each of six records from heterogeneous subjects. The judges tended to apply statements rated as universal and loaded with psychoanalytic terminology to any subject, while avoiding use of more specific statements; and they rarely selected statements about positive assets or traits of personality, even though some of the TAT records were from normal individuals.

As in any psychological test, the cooperativeness of the subject is important, and it cannot be assumed that the "cover story" given by the examiner, e.g., "This is a test of intelligence," takes care of the attitudes, set, and preconceived notions of the subject. TAT productions have been shown to be susceptible to distortion when the subject makes a conscious effort to give a specific kind of picture of himself. Individuals can influence the diagnosis of their personalities made by experienced TAT examiners and, to some extent, can manipulate their answers in accordance with their purpose in taking the test (298). However, the subject need not be consciously aware of any effort to distort his stories; he may be set in such a way that it is inevitable that stories will fit in with his predominant attitudes. Differences in TAT stories have been related to physiologically controlled needs such as hunger (302, 534), sex (326, 471, 505), and sleep deprivation,¹ hypnotically produced attitudes such as sadness and criticalness,² and psychologically induced motivations such as need for achievement (170) and need for affiliation (427). Similarly, a number

of experiments have shown that conditions directly antecedent to the test administration will affect the productions (496). Although most of these studies have dealt with the effect of specific frustration (21, 29, 258, 479, 482), there is evidence that the immediate surroundings in general have their influence, too (204, 281).

Despite all these seemingly extraneous influences, there still remains a large portion of the individual's idiosyncratic, deep seated motivation that seems to be reflected in his TAT productions. However, the exact nature of this relationship between overt behavior and fantasy as represented by the TAT has yet to be delineated (476). Much of the research concerned with this correlation has centered around the variable of aggression and, indeed, the relationship is not uncomplicated. There is no one-to-one relationship between amount of aggressive need depicted on the TAT and the overt, or even covert, behavior of the subject. The "sign" approach advocated by a number of writers, by which one can supposedly translate what the subject says or fails to say or the way he says it to how he will act (e.g., avoidance of the gun in pictures 3 and 8 means that the subject has to inhibit strong aggressive tendencies, or the use of forceful language or the fantasizing of death or failure in nonheroes signifies the tendency to act out aggression), has been demonstrated to be a failure (547, 582). However, when a theory of behavior is used to posit the relationship between TAT fantasy and overt behavior, results are more successful. For example, Pittluck (305) reasoned that both the aggressive drive and the anxiety opposing expression of this drive must be taken into account when predicting the likelihood of overt aggressive behavior in any individual. The indications of anxiety which she obtained from TAT stories included rejection or denial of aggression, excusing of the aggression by placing it in a socially acceptable context, noncompletion of aggressions planned by a fantasy character, and displacement of the aggression to nonhuman objects. These mechanisms are considered to be defensive in purpose; by their use the aggressive response becomes a compromise between aggressive impulses and the anxiety opposing their expression. It was found that the tendency to use these mechanisms in TAT stories was negatively related to the tendency to act out. The subjects who used more defense mechanisms in proportion to their out-

¹ MURRAY, E. J. "Thematic Apperception During Sleep Deprivation." Paper read at Eastern Psychological Association, Philadelphia, 1958.

² LEUBA, CLARENCE, AND LUCAS, CHARLES. "The Effects of Attitudes on Descriptions of Pictures." *J Exp Psychol* 35:517-24 D '45. •

going, aggressive fantasies tended to act out less than the subjects who used proportionally fewer such mechanisms. In addition, the subjects who used proportionally more unmodified, primitive responses in fantasy tended to act out more than patients with proportionally fewer fantasies of this nature. Therefore, Pittluck concluded that measures of aggressive fantasy can provide direct clues to overt aggressive behavior if these measures stress not the absolute frequency of aggressive responses but the extent to which such responses are free from modifications which are the result of anxiety.

According to behavior theory, anxiety about a given behavior usually results from the association of punishment with that behavior sometime in the past. Mussen and Naylor (455) found that subjects who anticipated punishment for aggression in their TAT stories demonstrated less overt aggression than subjects who did not anticipate such punishment. A further refinement of this relationship, which makes for more efficient prediction from TAT to behavior, is found in a study by Purcell (553) who showed that anticipated internal punishment must be distinguished from retaliatory punishment since the latter variable did not differentiate antisocial from non-antisocial subjects while the former did.

This relationship between aggressive fantasy and overt behavior was more efficiently related to actual learning conditions by Lesser³ who compared the relationship between these two variables among boys whose mothers encouraged expression of aggression as contrasted with boys whose mothers discouraged such behavior. Where aggressive behavior had maternal encouragement, there was significant positive relationship between aggression scores obtained from stories and behavioral ratings obtained from peers; but where mothers were relatively discouraging of aggression, there was a negative relationship of about the same magnitude. If both groups had been pooled, the correlation would have been no better than zero.

The foregoing studies, which have placed analysis of TAT behavior solidly in the main line of current psychological theory, seem to support a positive or representational type of relationship between fantasy and behavior. However, they have dealt only with outwardly directed aggression. An investigation by Davids,

Henry, McArthur, and McNamara (475) on inwardly directed aggression invokes cultural pressures to explain the negative relationship found between TAT stories and such behavior. The investigators reason that overt expression of this type of need (intra-aggression) is made difficult in western culture while its expression in fantasy is facilitated. Therefore, there would not necessarily be a relationship between the two methods of expression of this need; indeed, if the need were strong enough and it were difficult to find expression for it in overt behavior, it might very likely then be expressed in fantasy, here represented by TAT stories. This type of validation study, in which one variable at a time is rigorously defined and systematically manipulated or observed in carefully selected subjects who form clearly defined criterion groups to whom the TAT is then administered, seems to yield positive results. Other types, which depend on retrospective accounts (318, 524) or concurrent clinical evaluation (201, 204, 503), are less successful.

In summary, it seems the TAT cannot be used in the clinic as a standardized procedure in the same sense as an intelligence test, although, as one more impressionistic tool in the armamentarium of the clinician, it may have some practical utility. However, the research possibilities of the TAT are manifold. Much of what occurs in the psychological act of telling stories in response to pictures has been clearly delineated. The effect of order of presentation, picture content, presence or absence of color; the influence of the age, sex, race, intelligence, social status, etc., of both the subject and the experimenter; the immediately preceding experience, the set of the subject, the setting in which the experiment is conducted, the method of administration—all have been investigated and their effect assessed. The crucial question of just how TAT fantasy is related to overt behavior has not been so clearly demonstrated. Most of the work has been done in the area of aggression; and the consensus here is that there is a representative relationship between TAT fantasy and behavior, at least for outwardly directed aggression, if a number of modifying mechanisms such as anxiety, and other variables such as learning conditions, are taken into account. For aggression directed inward, the evidence from one study is that the relationship is compensational, and this has been tentatively related to cultural pressures pro-

³ LESSER, GERALD S. "The Relationship Between Overt and Fantasy Aggression as a Function of Maternal Response to Aggression." *J Abn & Social Psychol* 55:218-21 S '57. *

hibiting overt expression. It should be clearly understood, however, that in none of the studies relating TAT behavior to overt behavior is the obtained relationship ever high enough to permit prediction in individual cases with any degree of confidence. In clinical situations such predictions should not be made without corroboration from additional sources including other test data, interview material, and behavioral cues.

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The TAT has now been with us for 23 years and has become one of the three or four best known and most widely used clinical psychological tests. Anyone entering the field had better begin with general reviews of the TAT literature (181, 320, 563), for there are now close to a thousand references on the TAT. Henry (538) gives a very extensive and up-to-date bibliography.

The TAT is not a test that anyone can use after merely studying the manual or a few books on interpretation. In untrained and inexperienced hands it can do more harm than good. It is a test for trained clinical psychologists. Its technique is best learned through practice in a clinical setting under the supervision of a seasoned clinician who is skilled in projective techniques. While it is possible to be a good clinician without knowing the TAT, it is not possible to use the TAT judiciously without being a good clinician. Experience with the TAT is usually gained as a part of the psychologist's clinical training, and expertness with the test seems to be associated with training along "dynamic" or psychoanalytic lines as well as experience in psychotherapy.

ADMINISTRATION. The TAT is perhaps the least standardized of all psychological tests as regards administration, scoring, and interpretation. The instructions to the subject given in Murray's original manual are roughly followed, but few clinicians ever use all 20 cards on one subject. From their own experience clinicians come to have favorite pictures and they sometimes add a few others they think relevant for the subject they are examining. Seldom are more than 10 pictures used. Clinicians have various methods for eliciting fantasy material. Some even ask the subject, "What is the one

thing that could *not* be happening in this picture?" This is claimed to get at repressed psychic content better than the usual method of administration (541). It apparently makes little difference if the stories are obtained orally or are written by the subject, either alone or in a group (260, 497). The thematically "richest" TAT stories the reviewer has seen were written by subjects in a group situation (575).

SCORING. In addition to Murray's original schema and its later variations for scoring "needs" and "presses," there are a number of other scoring schemes (389, 430, 473, 481). In actual practice, however, formal scoring is little used. It is usually thought to be too time-consuming and often seems to miss the individual essence of the subject's production as well as the holistic impression the clinician wishes to obtain. In addition to the themes, attitudes, motivations, and defenses revealed in the stories, the clinician's analysis is based also on the so-called "formal" aspects, such as style, structure, the subject's complaisance with instructions, language characteristics, logical coherence, realism, bizarreness, emotional tone, productivity, and fluency. Perhaps the chief value of the schemes of scoring or tabulating various aspects of TAT productions is for students learning the TAT. Since the several scoring methods analyze the material from somewhat different angles, practice with them is a means of developing sensitivity to the many facets of TAT material that enter into interpretation.

INTERPRETATION. Rather meagre normative data on content and formal characteristics have been published (204, 388), but TAT interpretation is not based on the comparison of "scores" with standard norms. In practice the only "norms" are those held subjectively by the clinician from his own experience with the test. Analysis of as many as 50 to 100 TAT records may be required before one begins to have subjective "norms" for the TAT. It is largely for this reason that clinicians are reluctant to change to new sets of pictures, such as the *Symonds Picture-Story Test* or Bellak's *Children's Apperception Test*, for which subjective "norms" have not been accumulated. Murray, the inventor of the TAT, has restated and elaborated some of his ideas on interpretation (278), and there are now a number of good manuals on the art of TAT interpretation (430, 512, 538). There is no best or one authentic method of TAT interpretation. This fact is

demonstrated in Shneidman's book (290) in which each of 15 TAT experts analyzes the same protocol and explains his own method of interpretation. The clinician brings to the task of interpretation all his psychological knowledge, clinical experience, sensitivity, and intuition. The more actual experience the examiner has had with patients, especially if gained through psychotherapy, the more knowledge he has of dynamic psychology, psychoanalysis, and other projective techniques, the more meaning will he derive from the TAT. It is generally agreed that the TAT should not be interpreted "blind," for then it is too apt to miss the mark by far and have no value in "elucidating" the case history material. TAT interpretations tend more to ring true when they are made in conjunction with the case history and with impressions gained from interviews and other tests.

RELIABILITY. The question of reliability has been quite neglected in the TAT literature.¹ Reliability of scoring, of internal consistency, of test-retest, and of interpretation must be evaluated separately.

In searching the TAT literature, the writer has found only 15 estimates of scoring reliability based on sound statistical methods and presented in the form of the product-moment correlation coefficient so as to be strictly comparable to the usual measures of test reliability. These reliability coefficients range from .54 to .91, with an average of .77. For reliability of *scoring* (i.e., interscorer agreement), these figures must be considered quite low. Scoring reliability below .80 is generally considered unacceptable in scoring essay examinations, for example.

There is a widely held misconception that split-half or internal consistency reliability is meaningless in the TAT. Actually it is no less meaningful in the case of the TAT than for any other test comprised of a number of elements which are combined into some kind of "score." A proper coefficient of internal consistency for any TAT variable may be obtained by the Kuder-Richardson formula or by a rank correlation method. When the proper technique was applied (524) to 10 of the major Murray TAT variables (Achievement, Aggression, Autonomy, etc.) the internal consistency reliability of the various themes ranged from $-.07$

to $+.34$, with a mean of .13. These reliabilities are typical of most internal consistency measures on the TAT (497). What they mean in practice is that any scoring system based on the addition of themes elicited by various pictures is fallacious. A theme on one card is not sufficiently correlated with the same theme on another card to justify an additive treatment of TAT variables. It would be like adding together pounds, gallons, and inches. Each card seems to be a unique test in itself and is correlated little, if at all, with other cards (248). This fact casts serious doubt on the validity of many methods of TAT interpretation.

Test-retest reliability estimates are rare and are usually more a measure of the subject's memory for his first productions. When subjects were required to make up *different* stories on retest, the reliability coefficients of only 3 out of 17 scored variables were significantly greater than zero (497). McClelland (406) reports a retest reliability (1 week interval) of .22 for his quantitatively scored *n* Achievement.

Reliability of interpretation is a more important consideration. Friedman (573) found the correlations (from a Q-sort) between different interpreters' ideas about the characteristics of the TAT "hero" to average .74, with a range from .37 to .88 for various protocols. This study unfortunately tells us nothing about the discriminating power of the TAT with respect to subjects, but indicates only the fact that there is some agreement between interpreters about the manifest characteristics of the central figure in the stories. Davenport (329) had six clinicians rate six TAT records on 207 typical interpretive statements as they applied to each record. The major finding was the lack of reliable discrimination. There was little agreement among the judges in the differential use of the statements for the six TAT records. The judges tended to apply statements rated as universal to almost any patient while avoiding the use of more specific statements. They rarely made statements about positive aspects of personality even though normal subjects were used.

VALIDITY. With such low reliability it is not surprising to find that the validity of the TAT is practically nil. But in discussing validity, one must distinguish two main classes of variables derived from the TAT protocol: thematic material and formal characteristics (style, lan-

¹ JENSEN, ARTHUR R. "The Reliability of Projective Techniques." *Acta Psychologica*, in press.

guage, fluency, etc.). On the criterion side one must distinguish between (a) temporary or situationally induced affects, drives, etc., and (b) relatively stable personality characteristics, traits, etc. In experimental studies there have been found significant but low correlations between certain thematic content (e.g., *n* Achievement, *n* Aggression, *n* Sex) and experimentally induced affects or drives (406, 497, 597). These relationships, however, have been so low and are so dependent upon particular experimental conditions as to be of no practical value in the individual clinical application of the TAT. Thematic content has not shown significant relationships to relatively stable behavioral tendencies, personality traits, or psychiatric diagnosis (204, 482, 575).

Formal aspects of the TAT show a low but significant relationship to personality characteristics and diagnostic categories (389, 473, 575). TAT material when analyzed not for its fantasy content but as a "behavior sample" (the subject's complaisance, attitude toward the examiner, degree of social inhibition, etc.) may have some predictive power. For example, adolescent boys who habitually acted out aggressively in ways regarded as taboo in school responded also to the TAT with socially tabooed content and language (575). But these relationships are tenuous; they depend upon a large number of cases for their statistical significance and are of little value in clinical prediction.

Various studies indicate that the TAT has little if any validity as a clinical test. It is generally agreed that the TAT is invalid for nosological diagnosis (181, 204, 320), although certain formal characteristics have been shown to have some relationship to certain broad diagnostic categories (389, 473). Brief, easily scored objective questionnaires, however, can do this sort of thing much more effectively than the TAT. While an objective questionnaire—the *Psychosomatic Inventory*—correlated .69 with pooled clinical ratings of anxiety, only 3 out of 18 commonly accepted TAT signs of anxiety correlated significantly with the clinical ratings. The highest of these correlations was .40 (451). In another study Child, Frank, and Storm (524) summarize their findings: "We have explored 10 forms of social behavior, and anxiety about each, through two techniques of data gathering. A questionnaire in which subjects rated themselves on 10 items believed relevant to each variable yielded meas-

ures of very satisfactory reliability and, for three variables for which a pertinent criterion was available, substantial validity. A group TAT using eight standard pictures relevant to our variables yielded measures of generally very low reliability, of no validity (by the same criterion applied to the questionnaire), and of no apparent relation to the corresponding measures obtained from the questionnaire." Hartman (161) made comparisons between a clinician's ratings based on the TAT and two other clinicians' ratings based on case history material. The degree of correspondence between interpretations based on the TAT and those based on the case history was barely above the chance level. The median correlations between two raters using case history material and the TAT interpreter were .19 and .28. Most of the significant correlations were based on formal characteristics of the TAT material. In terms of predictive power, Winch and More (562) found that the TAT adds nothing significant to information gained in an interview.

Murray (278) and others have argued that the real proof of the TAT would be the correspondence between TAT material and the deeper layers of personality which are revealed only in the process of psychotherapy. Murray has mentioned one case in which the TAT "adumbrated all the chief trends which five months of analysis were able to reveal." Studies based on larger samples have not found much correspondence between TAT and therapy material. Meyer and Tolman (502) sought a correspondence between attitudes concerning parents expressed in psychotherapeutic interviews and in TAT protocols. There was "no predictability from TAT to therapy as to whether or not parents were discussed, and when they were discussed, no similarity was found between those attitudes and images given in TAT stories and in psychotherapy." Saxe (233) had a TAT clinician rate a personality questionnaire tapping typical TAT variables on 20 patients. After the patients had undergone four months of psychotherapy, the therapist rated the patients on the same questionnaire. There was greater than chance (5 per cent level) agreement in only half of the cases.

If the TAT is short on actual validity, it certainly is not lacking in what might be called "subjective validity" (akin to "faith validity"). This is a feeling gained by the clinician using the TAT that it contributes something to his

understanding of the case. Some psychologists have a greater capacity than others for experiencing subjective validity. This capacity seems to be associated with training and experience in psychoanalysis, psychotherapy, and projective techniques in general. The TAT also provides the clinical psychologist with the kind of dynamically interpretable material that can be appreciated by the psychoanalytically oriented psychiatrist to whom the clinician addresses his report. Thus clinicians are heard to speak of the TAT as being "useful" rather than as having validity. It is probably for these reasons that the TAT survives in clinical practice.

SUMMARY. The TAT is a nonstandardized assessment technique which is best left to clinical psychologists who have had special training in its use. While research has shown the TAT to have low reliability and negligible validity, many clinical psychologists continue to use it, apparently with some satisfaction.

For a review by Arthur L. Benton, see 4:136; for reviews by Arthur L. Benton, Julian B. Rotter, and J. R. Wittenborn, see 3:103 (1 excerpt); for related reviews, see B63, B204, B395, 4:137-41, 3:104, and 3:104a.

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★**Thematic Apperception Test for African Subjects.** Ages 10 and over; 1953; 1 form [53]; no data on reliability; 12s. 6d. per set of test materials, postage extra; [60-120] minutes; S. G. Lee; University of Natal Press. *

REFERENCE

1. LEE, S. G. *A Preliminary Investigation of the Personality of the Educated African by Means of a Projective Technique.* Master's thesis, University of Natal (Natal, Union of South Africa), 1949.

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Impressed with the fruitfulness of the thematic apperception approach, Lee attempted to use the standard TAT materials for the investigation of the personality of Zulu subjects, but found that they were not adequately stimulated to imaginative production. He therefore devised his own set of pictures for use with African subjects. In order to "cross the cultural gap" and to arrive at pictorial materials that would be stimulating, he based his pictures on fantasy productions collected from Bantu inmates of a mental hospital.

His version of the TAT consists of 22 cards, 8 for males, 8 for females, and 6 (including a blank card) for both males and females. In

some respects the cards impress this reviewer as being more ambiguous than the cards of the standard TAT. The faces of the figures are either highly ambiguous in expression or hidden from view. The backgrounds include little detail. The line of the drawings is more sketchy and hence less structured than that of the standard TAT drawings. On the other hand, many of the figures are portrayed in vigorous action or exaggerated posture that seems less ambiguous than that of the figures of the standard TAT and might be expected to be highly provocative of kinaesthetic empathy.

There seems to have been no attempt systematically to vary the number, sex, and apparent age of the figures in order to sample various types of relationships. Two cards, both in the female series, seem designed to elicit stories of parent-child relations, presumably from the mother's viewpoint. One card portrays a heterosexual situation. However, most of the pictures present single figures, and only six show two or more figures together.

Although the pictures were originally designed for the Zulu and contain some characteristically Zulu features, Lee reports that they have been used effectively among other African peoples (he specifies the tribes) and among both educated and uneducated subjects. Nevertheless, it may not be assumed that his *Thematic Apperception Test for African Subjects* is therefore applicable to all African peoples. The fact that 12 of the cards depict near-naked figures would undoubtedly be a disadvantage with tribes such as the Ganda of East Africa who traditionally clothe themselves from top to toe and consider it immodest to display the feet when sitting.

The 42-page manual provides in concise form an excellent guide for the administration and interpretation of a TAT-type test. The initial instructions contain all the essential points included in Murray's original instructions, but are worded more simply and might well be adapted to good effect in administering the standard TAT. Lee recommends that a recall phase be included at the conclusion of the storytelling phase, in which the subject is asked to recall as many of the pictures as he can in as much detail as possible. He further recommends a follow-up interview when the subject is asked to explain the sources of his plots.

Lee's suggestions for analysis and interpretation emphasize the form as well as the con-

tent of the story. In his suggestions for analysis, he has been influenced obviously by publications of other authors and he acknowledges his sources in his bibliography. His selection of points to be observed in analysis is commendable. Although his examples are selected from the records of the 140 African subjects to whom he has given his modification of the TAT, the manual might well serve as a useful guide to the beginner using any version of the TAT. He provides no normative material in statistical form, but lists the common responses he has obtained for each card. The manual concludes with a specimen analysis.

In short, Lee's TAT for African subjects recommends itself for the personality evaluation of individual subjects and for the investigation of culture-personality interaction among African peoples who may be presumed to be able to identify with near-naked African figures, although for some tribes either the Thompson modification of the TAT or some other special modification may be more appropriate.

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Thematic Apperception Test: Thompson Modification. Negroes ages 4 and over; 1949, c1943-49; individual; 1 form ['49]; manual ('49); no data on reliability and validity; no norms; \$6 per set of test materials, cash orders postpaid; (120) minutes in 2 sessions 1 day apart; Charles E. Thompson; Harvard University Press. *

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- 1-5. See 4:138.
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7. COOK, RICHARD A. "Identification and Ego Defensiveness in Thematic Apperception." *J Proj Tech* 17:312-9 S '53. * (PA 28:4343)
8. LIGHT, BERNARD H. "A Further Test of the Thompson TAT Rationale." *J Abn & Social Psychol* 51:148-50 J1 '55. * (PA 30:4581)
9. KLEIN, ARMIN, JR. *The Influence of Stimulus Material and Geographical Region on Responses to a Thematic Test*. Doctor's thesis, Columbia University (New York, N.Y.), 1956. (DA 16:1284)

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Thompson's purpose in modifying the TAT was to provide an instrument to facilitate a more valid clinical evaluation of Negro subjects by increasing the extent to which they can identify with the figures portrayed. His intention was to construct a series of pictures similar to those of the TAT in every respect except for changing the figures to have dark skin color and negroid features. Twenty-one of the 31 original pictures were redrawn or rephotographed (Card 13B). In the redrawing, the stimulus value of

the cards may well have been changed in respects other than the racial characteristics of the figures, for the dark backgrounds were lightened in order to provide a contrast with the dark faces, and the quality of the line was changed markedly in some of the pictures, especially in those originally reproduced from paintings, for example, Cards 2 and 7GF. Two additional and unexplained changes were made: the blank card was changed from white to gray, and Card 10 was dropped so that the complete series consists of 19 instead of 20 cards. The remaining cards (11, 12BG, 14, 15, 17GF, 19 and 20) are unchanged. The manual for the Thompson modification follows Murray's manual very closely, except for the omission of the section on analysis and interpretation of the stories.

The T-TAT differs significantly from other modifications designed for studies of culture-personality interaction,¹ in which the pictures are constructed to be appropriate to the group under investigation, not only in terms of racial characteristics of the figures portrayed, but also in features characteristic of the culture, including clothing, activities, distinctive objects, style of buildings, and so on. Henry¹ has demonstrated that such materials yield records permitting exploration of the "idiosyncratic component" of personality as well as providing data on the communal and role components.

The consensus in the literature is that the T-TAT may be useful in exploring racial attitudes and stereotypes in both Negro and white subjects. However, Thompson's contention that the T-TAT is better than the standard TAT for the clinical evaluation of individual Negroes has been challenged by other authors.

Thompson bases his claim for the superiority of the T-TAT upon a study (2) undertaken with 26 southern male Negro college students, who produced significantly longer protocols to 10 modified cards than they did to the equivalent cards of the standard version. From this and from qualitative data he concludes that the modified TAT facilitates identification and empathy in Negro subjects. Other studies with northern Negroes (4), predominantly southern Negroes (7) and white subjects (4, 7, 8) failed to demonstrate significant differences between the T-TAT and standard TAT with respect to

¹ HENRY, WILLIAM E. Chap. 8, "The Thematic Apperception Technique in the Study of Group and Cultural Problems," pp. 230-78. In *An Introduction to Projective Techniques*. Edited by Harold H. Anderson and Gladys L. Anderson. New York: Prentice-Hall, Inc., 1951. Pp. xxiv, 720. *

length of stories. No significant differences were found for "idea count" (5) or for 12 measures of ego defensiveness (7). Subjective reports (7) indicated that Negroes could identify with TAT and T-TAT figures whereas white subjects thought of the T-TAT figures as Negroes rather than "people in general."

Qualitative differences between the stories evoked by the T-TAT and standard TAT cards were noted by several authors (3, 5, 8) but these were not considered to indicate increased empathy for figures with racial characteristics similar to those of the subject. Riess, Schwartz, and Cottingham (4) claim that Negroes in our culture, unaccustomed to seeing Negroes portrayed in pictures, become self-conscious about their racial status, and that this tends to defeat the basic purpose of the projective method, and highlights social distance and racial stereotypes. Korchin, Mitchell, and Meltzoff (3) view the changed figures of the T-TAT as representing an undesirable reduction in ambiguity, which evokes attitudes toward Negro problems rather than eliciting idiosyncratic material.

Length of story seems obviously inadequate as the major criterion of the adequacy of a protocol for clinical evaluation. Qualitative differences between T-TAT and TAT productions have not been systematically studied. In the absence of studies comparing the relative thematic yield of the two versions of the test for Negro groups, similar to Mussen's study² using the standard TAT to compare white and Negro groups, it seems premature to conclude either that the Thompson modification is superior to the standard TAT for all Negroes or that it is a "bastardization of the projective techniques" (4).

When deciding whether to use the T-TAT or the standard version, the clinician may wish to judge whether the Negro subject in question has so little sense of social distance that the standard version may be preferable or whether he is sufficiently removed from white groups that the T-TAT seems more promising. The clinician may also be influenced by the extent to which he believes that a reflection of the subject's racial attitudes will enrich the personality evaluation to be derived from the total battery of tests or possibly impoverish the evaluation by crowding out the information about needs

and press that he relies upon the TAT to provide.

See 4:138 (3 excerpts).

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★**The Tomkins-Horn Picture Arrangement Test.** Ages 10 and over; 1942-57; IBM; 1 form ('44); \$15 per 50 tests; \$25 per set of scoring materials ['57]; \$4.50 per 100 scoring sheets ('57); \$10 per manual ('57, see 5 below); postage extra; (30-60) minutes; Silvan S. Tomkins, Daniel Horn, and John B. Miner (manual); Springer Publishing Co., Inc. *

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This "abbreviated projective test" was designed to yield material with some of the richness of the *Thematic Apperception Test* but with greater ease of administration and scoring. Each of the 25 items consists of three sketches. The subject is instructed to indicate the order for the three pictures "which makes the best sense" and to write one sentence for each picture to tell the story.

The intended function of the technique is not made explicit. There is a passing comment that it was "originally designed for purposes of selection and guidance of industrial personnel," but later "redesigned for more general use." However, the emphasis in the book implies that the authors are concerned with clinical diagnosis, with case studies. The content of the pictures reflects the development of the procedure—14 of the 25 items portray a shop setting. The odd distribution over content areas does not clarify the problem of the appropriate utilization of the instrument. The authors indicate that they attempted to sample three areas: social orientation, optimism-pessimism, and level of functioning.

The highly commendable and unique feature of this test's development was its administration to a representative "normal" sample (n =

² MUSSEN, PAUL H. "Differences Between the TAT Responses of Negro and White Boys." *J Consult Psychol* 17:373-6 O '53. * (PA 28:5888)

1,500) of the United States population. A vocabulary test administered at the same time made it possible to publish norms for various groups identified by intelligence as well as by age, education, and other demographic characteristics. Hundreds of abnormals were also tested, but less representatively.

Although the administration is simple, the scoring is exceedingly complex. It is based on a clinical rationale that diagnosis must be based on responses which are rare for the subject's group, as determined by his age, IQ, and education. Thus, the authors practically throw away all information contained in "common" responses or patterns (occurring with frequencies greater than 5 per cent). They do, however, have conformity keys indicating popular tendencies, but these are "intended primarily for research purposes." They also note that cross-cultural comparisons should be based on modal tendencies for groups.

Hand scoring and interpretation are said to take only an hour, but scoring on an IBM accounting machine requires 20 minutes per subject. At the time the normative study was conducted, the scoring of individual records was so cumbersome that group statistics are reported rather than frequency distributions of scores for individuals.

Once the scoring of a single protocol has identified the pertinent keys from the 655 specified patterns, the trained psychologist can proceed with an essentially clinical interpretation. If he wishes, he may use the subject's qualitative sentences in this step.

In spite of the enormous amount of work expended on the PAT, adequate psychometric analyses have not been reported in the book which serves as manual. No alternate form is available and the authors dismiss as inappropriate the investigation of internal consistency, although at one point they imply that the correlation between items is very low.

Two studies of stability are reported, with three weeks and three years between administrations: 33 and 45 per cent, respectively, of the responses changed on retest. The authors make the dubious interpretation that the test is sensitive to personality changes over a three-year period but fail to grasp the serious weakness implied by the large change over three weeks. (No data on changes in pattern are reported.)

The authors note that over plates or items the smaller the modal response, the more frequently

such modal responses changed. Although they do not report data on this point, there is reason to expect that the more atypical a subject's response, the more likely it is to be changed.¹ Thus, the rare responses and the rare patterns are probably the least stable. But it is just these on which the authors base their scoring and interpretation! They are well aware of changes in a subject from day to day, but they make no provision for distinguishing momentary tendencies from enduring dispositions.

The manual is especially deficient on the problem of validity. A few sentences are devoted to one study which found correlations with independently assessed personality characteristics that were in the expected directions but low and "too weak to be diagnostically useful." Pertinent but not definitive evidence is presented in the patterns associated with each of the several abnormal groups.

The exposition in the book is not concise and clear. No sample protocols are presented.

This procedure is one of several recent innovations which attempt to apply current knowledge and technical developments to personality assessment. While the work on norms is commendable, the technique has not been investigated sufficiently to justify its use for any purpose except methodological research. The use of ordered and objectively scored responses to approach thematic material is a step in the right direction, but this study indicates the high cost of this method.

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The *Tomkins-Horn Picture Arrangement Test* is an ingenious group projective personality test, adapted for machine scoring, utilizing simple social and work situations. The test consists of 25 plates, each containing three sketches which can be combined into a variety of sequences or "a story that makes sense" by the subject. The subject is asked to arrange the three pictures and to write three sentences explaining the selected sequence. It is the subject's selection of one of a variety of possible sequences that makes it possible to measure the projective nature of the test. Theoretically, the test is concerned with the personality or dynamic meaning revealed by the selection of sequence

¹ FISKE, DONALD W. "The Constraints on Intra-Individual Variability in Test Responses." *Ed & Psychol Meas* 17:317-37 au '57. *