

CURRENT THEMATIC APPERCEPTION TESTS FOR CHILD AND ADOLESCENT ASSESSMENT¹

by

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The *Thematic Apperception Test* (*TAT*; Murray, 1943), like all projective techniques, derives its validity from the “projective hypothesis,” which assumes that the way in which the examinee perceives and interprets the test material reflects fundamental aspects of his or her personality (Rapaport, 1967). The prototypical set of picture cards developed by Murray was used with American recruits during WWII and the *TAT* subsequently became a popular methods of assessment.

"Thematic apperception test" is now the generic term for a specific category of psychological assessment instrument. Characteristic of a thematic apperception test is that the images on the cards are representational (unlike the abstract forms used in inkblot tests) and, therefore, suggestive of certain themes. Moreover, the cards usually portray people or, alternatively, figures or animals with sufficiently human features to allow some degree of identification by the examinee.

Over the years, the *TAT* has been listed as one of the most frequently used methods of assessment, both in the United States (Piotrowski, Sherry, & Keller, 1985; Watkins, 1991; Watkins, et al., 1995) and in other countries (Evers & Zaal, 1982; Piotrowski, Keller, & Ogawa, 1993). The thematic apperception test was also embraced as a method for child and adolescent assessment. Besides the *Children's Apperception Test* (Bellak & Bellak, 1949/1991a), which appeared soon after the *TAT*, numerous instruments

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appeared over the years. In the 1980s and 1990s, the developers of various thematic apperception tests for children aimed to improve the psychometric foundations of the instrument, which has long been considered its Achilles heel.

This chapter reviews the thematic apperception tests that are currently available for child and adolescent assessment.² Many popular instruments from the early period, e.g. *the Blacky Pictures* (Blum, 1950) and the *Michigan Picture Test* (Andrew et al., 1953), are now out of print, but three instruments, besides the *CAT*, are still commercially available today: the *Tasks of Emotional Development Test* (Cohen & Weil, 1975a), the French *Patte Noire* (Corman, 1961/1992) and the *Columbus* (Langeveld, 1969) from the Netherlands. Also, the *TAT* is reviewed here, since Murray allowed for its use with young children and adolescents. Likewise, the *Four Picture Test* (van Lennep, 1948/1983), another early instrument for adults, is included in this review, as it may be used with children aged 10 years and older. Both instruments are evaluated here in light of their utility as instruments for child and adolescent assessment.

The review further examines the various thematic apperception tests for children and adolescents that appeared more recently. This group includes the *Adolescent Apperception Cards* (Silverton, 1993), the *Children's Apperceptive Story-Telling Test* (Schneider, 1989), the *Children's Self-Report and Projective Inventory* (Ziffer & Shapiro, 1992), the *Family Apperception Test* (Sotile, et al., 1988), the *Roberts Apperception Test* (McArthur & Roberts, 1982), and the *TEMAS* (Costantino, Malgady & Rogler, 1988).

Picture card methods not developed specifically for assessment purposes, such as the *Adoption Story Cards* (Gardner, 1978) and the *Projective Story*

² This review is limited to instruments published in English, with the exception of the French *Patte Noire*.

Telling Cards (Caruso, 1993), are not included in this review. *The Adoption Story Cards* aims to be a flexible method for use in therapy, without rules pertaining to administration and scoring as required by a test. The *Projective Story Telling Cards* was designed to facilitate an interview with the child and the manual suggests that the practitioner poses a series of question with each card (e.g., *Have you ever felt this way? Do you ever have to take care of your little brother or sister like this?*). Arguably, the method -- in spite of its title -- is not in accordance with the projective hypothesis, since this manner of questioning would elicit conscious responses.

The aim of this review is to assist the practitioner in selecting an appropriate instrument for child and adolescent assessment. Twelve thematic apperception tests are presented here, in alphabetical order. Each test is described as to various features that are relevant for the selection of an assessment instrument: age group, theoretical rationale, card content, method of response scoring, and normative data (for a summary, see the box on page 22). The evaluation is based on information provided in the manual, test reviews and relevant publications.

ADOLESCENT APPERCEPTION CARDS (AAC)

The *Adolescent Apperception Cards* (Silverton, 1993) is a thematic apperception test designed specifically for adolescents (12 to 19 years). The AAC has a cognitivist framework. The manual proposes that the projective stimulus of a thematic apperception test allows the examinee to create personal narratives based on cognitive schemas or mental structures with which the individual construes meaning for his experience of the world and that these narratives are an expression of the his conception of self and others.

The AAC has 11 cards. Any number of cards may be used in the administration of the test. Seven of the 11 cards are for both males and females; four cards have sex-specific parallel versions. A parallel minority

version is also provided.

The realistic black-and-white drawings on the AAC cards portray adolescents in various contemporary settings. Themes that may be elicited by each card, according to the manual, include loneliness, physical and sexual abuse, participation in unapproved activities (gang activity or drug abuse), sexual maturity, domestic violence, and parenting styles. Although the cards have face validity in that they clearly represent contemporary issues relevant to adolescence, the AAC manual does not refer to a specific theory of adolescent development.

The manual recommends a subjective evaluation of the responses as to content and form, with the proviso that this requires a high level of skill and experience. There are no reports of research regarding the psychometric properties of the method or other validation research.

The conclusion is that the AAC is an ideographic method that may be a useful tool for understanding the adolescent's experiential world. The instrument does not, however, meet the basic requirements to qualify as a valid and reliable assessment instrument.

CHILDREN'S APPERCEPTION TEST (CAT)

The *Children's Apperception Test* (Bellak & Bellak, 1949/1991a) was developed specifically for use with children aged 3 to 10 years. The black-and-white drawings show anthropomorphized animals, on the assumption that certain animals are less threatening than humans for young children and that children would ascribe unacceptable traits or emotions to animals more easily. Numerous studies that were undertaken in the 1960s and 1970s to confirm this hypothesis (for a review, see Haworth, 1986), but this research has not furnished unambiguous answers. A parallel version with human figures (*CAT-H*; Bellak & Bellak, 1994) is available for older children.

Although the manual introduces the *CAT* as a "direct descendant of the *TAT*" (p. 1), there are some important differences. Unlike the *TAT*, test administration of the *CAT* is standardized: all 10 cards are presented in a set order. Another difference pertains to card content. Significant themes from psychodynamic developmental theory are clearly recognizable in the *CAT* cards (e.g., feeding problems, toilet training, Oedipal feelings, sibling rivalry, and aggression). In this respect, the *CAT* cards have stronger face validity than those of the *TAT*. A version for very young or retarded children (*CAT-S*; Bellak & Bellak, 1991b) depicts less common themes, such as parental separation, physical disability, and mother's pregnancy.

For the analysis of the responses, the manual lists a number of content and form variables. Bellak later elaborated on the *CAT*'s theoretical rationale and the response analysis in a handbook (Bellak 1954; 1992). Also, various alternative scoring methods are available. Haworth's (1965) Schedule of Adaptive Mechanisms elaborates on the *CAT*'s psychodynamic framework. The Need-Threat Analysis by Chandler, Shermis, and Lempert (1989) is an adaptation of Murray's concepts of needs and presses, providing five bipolar dimensions for scoring: Independence-Domination, Affiliation-Rejection, Security-Insecurity, Achievement-Failure and Aggression-Punishment. The *CAT* scoring system by Brody and Siegel (1992), a product of their longitudinal study of personality development, combines scoring of thematic psychodynamic content with ratings of defense mechanisms in *CAT* responses. Unfortunately, none of these scoring systems reports on inter-rater reliability. Since they do not define the scoring criteria clearly, response analysis with these systems allows (too) much individual interpretation and low inter-rater agreement may be expected.

The *CAT* manual does not provide normative data, and normative research performed in the 1960s (for a review, see Zubin, Eron & Schumer, 1965) can hardly be considered valid today. In conclusion, the *CAT* continues to be appreciated as a theoretically valid instrument for clinical use (Hatt, 1985). However, the absence of reliability data is an important drawback for the use

of the *CAT* in child assessment.

CHILDREN'S APPERCEPTIVE STORY-TELLING TEST (CAST)

The *Children's Apperceptive Story-Telling Test* (Schneider, 1989), one of the more recently developed thematic apperception tests, was hailed as a valid and reliable test unparalleled by other thematic apperception tests (Aronow, 1995). The *CAST* was designed for use with children aged 6 to 13 years.

According to the manual, the *CAST* incorporates Adlerian theory, which centers on the view that individuals are social beings with goal-directed drives toward "belonging." An Adlerian conceptualization of development emphasizes the role of cognition, in that the developing child's experiences, social interactions, and observations lead to thought patterns that eventually form a relatively stable scheme of apperceptions. One reviewer stated that, although not every test user endorses Adlerian theory, the emphasis on the individual's social functioning has a general common-sense appeal (Aronow, 1995).

The color drawings of the 17 *CAST* cards portray contemporary scenes with children from various ethnic groups in family, peer, and school situations. Fourteen cards have parallel male and female versions. Administration of the *CAST* requires that all 17 cards be used in a fixed order. There are standardized instructions, and the presentation of each card is followed by a series of five questions, as described in the manual.

The responses to each card are scored on Thematic Scales, Problem-Solving Scales, and various Thematic Indicators. These measures are clearly defined in the manual and clarified by scoring examples and two case study scoring exercises. Raw scores for the first two scales are converted into T-scores and plotted on a profile sheet showing the confidence intervals. Also, four factor scores may be calculated. Inter-rater reliability for all 15 scales is reasonable.

The manual also provides detailed information regarding test development and standardization, which was based on a nationwide representative sample of 876 schoolchildren aged 6 through 13. Good internal consistency was found for three of the four factors.

In conclusion, the *CAST* is a psychometrically based instrument with a clearly formulated theoretical rationale supported by a normative data, which makes it an attractive assessment instrument for use with latency-age children.

CHILDREN'S SELF-REPORT AND PROJECTIVE INVENTORY (CSRPI)

The *Children's Self-Report and Projective Inventory* (Ziffer & Shapiro, 1992) is another instrument published fairly recently. The *CSRPI* combines various assessment methods, including a set of thematic apperception cards that will be reviewed here. The manual does not provide a rationale for the combination of assessment methods. The inventory seems to be intended for latency-age children, but no age group is specified.

The manual does not provide a theoretical rationale for the projective cards and states only briefly that the aim was to provide scenes of everyday experiences relevant to children of various ages and both sexes.

The 12 cards have simplified black-and-white drawings of characters whose faces have been left blank. Each card represents a specific theme, such as self-image, needs and fantasies, autonomy, initiative, family relationships, and peer relationships. The cards are to be administered in the standard fashion of a thematic apperception test. The manual also suggests that the practitioner asks some "personalizing questions" to link the response to the child's own experiences, e.g., *Did you ever feel like that? What do you do in a situation like this?* This kind of questioning implies an interview, in which the cards are used a tool for eliciting the child's conscious attitudes, thoughts, and feelings. In this respect, the *CSRPI* does not reflect the projective hypothesis.

Responses are evaluated by way of the clinical variables listed in the manual, but these variables are not defined. No further instructions are provided to ensure reliability of response scoring, and low inter-rater reliability may be expected. The manual does not report any normative data, and no research with the *CSRPI* has been found elsewhere.

Clearly, the *CSRPI* lacks validity and reliability, and the use of the cards as a thematic apperception test for child assessment is not justifiable.

COLUMBUS

The *Columbus* (Langeveld, 1969), named after the explorer, is a thematic apperception test from the Netherlands that received some notice in the United States on publication. This instrument is based on a phenomenological approach to projective testing, with an emphasis on understanding the experiential world of the examinee. The *Columbus* was designed for children and adolescents (ages 6 through 18) and was based on an explicit developmental framework. With its subtitle *Picture analysis of growth towards maturity*, this instrument focuses on the development of the child's independence, which was seen by Langeveld as the essence of maturity. Scenes representing the child's exploration of his world vary from a toddler playing under the kitchen table (card 1) to an older child walking alone through the fields (card 15).

The full set of *Columbus* cards consists of 21 black-and-white reproductions of watercolors and three colored cards. The administration of the test is not standardized. The manual does recommend specific series of cards relevant to certain age groups, but the practitioner may use any number of cards as long as the series is interspersed with one or two colored cards to prevent "projection fatigue" (Langeveld, 1969, p. 8). Alternatively, the practitioner may use a set of three or four cards examinee to elicit a single story from the examinee.

Langeveld recommended that response interpretation be guided by a phenomenological approach to the examinee. The *Columbus* manual lacks a clear scoring method and only provides some suggestions regarding a list of scoring variables, which are not clearly defined.

Langeveld's phenomenological developmental theory makes the *Columbus* an appealing instrument for many practitioners who work with children. One reviewer pointed out that some of the cards portray typically European scenes, which would be a drawback for use with American children (Vandenberg, 1972). A more important objection to the *Columbus* is the lack of clear guidelines for scoring. For Langeveld, a phenomenological framework was not compatible with a psychometric response analysis, as "the object itself [is] too complicated for this" (Langeveld, 1969, p. 38). Be that as it may, the complete lack of validity and reliability data was considered a serious limitation to this instrument (see Ammons & Ammons, 1972; Vandenberg, 1972). No validation research on the *Columbus* has been reported since its publication.

FAMILY APPERCEPTION TEST (FAT)

The *Family Apperception Test* (Sotile, et al., 1988) is based on family systems theory. The *FAT* is for children aged 6 years and up, but the instrument may also be used with other members of the child's family. The test aims to elicit projective responses pertaining to family process and structure and the affects associated with family relationships. The authors claim that the *FAT* can "bridge the gap between individual and family assessment (p. 1)" and that the responses "may generate family systems hypotheses (p. 7)." The explicit theoretical validation of the *FAT* refers to the work of theorists such as Bowen, Minuchin, and Haley.

The *FAT* cards show life-like pencil drawings of children with family members in various scenes. The manual states that the themes commonly elicited by each card include marital and family conflict, limit setting, boundary problems,

dysfunctional circularity, open versus closed family systems, trans-generational alliances and conflicts, sexual abuse, and self-concept. All 21 cards are used in a single administration.

The scoring system, which consists of 10 measures for response content and form, lacks detail (Benson, 1995). Empirical validation of the test, as described in the manual, was based on five unpublished master's theses. These studies found substantial inter-rater reliability one measure only. The moderate to fair inter-rater reliability for the remaining measures was considered unacceptable by one reviewer, who recommended further validation (Benson, 1995). Discriminant validity was established for most of the scoring categories. No further validation studies have been published, and there seems to be little interest in the *FAT* as a research instrument.

Another important objection to the *FAT* as an assessment instrument is that the use of a projective method is not compatible with its theoretical framework. A thematic apperception test assesses perceptions of the family, not actual family interaction (Benson, 1995). Moreover, the projective responses of a single family member provide data at the individual level only (Cosden, 1995). Arguably, joining projective theory, which is based on intrapersonal psychodynamics, to a systems approach, which is based on observable family interaction, makes for an unlikely marriage.

FOUR PICTURE TEST (FPT)

The *Four Picture Test* (van Lennep, 1983), which appeared in 1948, is another thematic apperception test from the Netherlands that became fairly well known in the United States. The *FPT* is generally used in adult assessment, but the manual indicates that the test may be used with children aged 10 and older. However, the *FPT* was clearly not designed with developmental considerations in mind. Moreover, it is unlikely that pre-teens identify easily with the scenes on the cards, which are limited in scope (Lee, 1965).

The *FPT* has four postcard-sized plates that are presented together, and the examinee is asked to write a single story based on all four cards. The blurry water-color reproductions show all male characters in a 1920s atmosphere (e.g., men playing tennis in long white trousers). Van Lennep advocated a phenomenological approach to assessment. The manual states that the pictures represent four "fundamental existential situations" in relating to others (van Lennep, 1983, p. 2), but provides no indication of the themes that the cards are likely to elicit.

Evaluation of the responses to the *FPT* is highly subjective. The first edition of the manual provided some guidelines for an impressionistic interpretation of the responses, but even these minimal requirements for reliable response scoring were omitted in a later, revised edition. Reviewers considered the large-scale validation study cited in the manual insufficiently detailed to allow serious consideration (Lee, 1965; Schepers, 1965). No norms are provided, and no further research has been reported since the publication of the *FPT*.

The *FPT* demonstrates all the shortcomings commonly associated with thematic apperception tests, and its designation as a test is unwarranted. The use of the *FPT* as an instrument for adolescent assessment should be discouraged.

PATTE NOIRE

The *Patte Noire* (Corman, 1961/1992) is a thematic apperception test from France that is well known mostly in Europe. This thematic apperception test is for children aged 5 years and up.

Like the *CAT*, the *Patte Noire* is based on the assumption that young children respond more readily to pictures showing animal figures. The postcard-sized cards show Patte Noire, a piglet with a black hind leg, in various situations, often together with other members of the pig family. A parallel version for

Jewish and Arab populations depicts sheep instead of pigs.

The clinician presents all 17 cards to the examinee, who is asked to form a single story using any number of cards. Following the storytelling, the practitioner asks the examinee to sort the cards according to preference. Finally, the practitioner asks the examinee to guess which three wishes *Patte Noire* will ask of the fairy shown on one of the cards.

The theoretical framework of the *Patte Noire* focuses on Freudian psychosexual theory, and the cards clearly represent the stages of libidinal development in early childhood, namely, the passive oral stage (feeding, sibling rivalry, and abandonment), the active oral stage (aggression), the anal stage (cleanliness), and the Oedipal stage (parental relationships, fear of castration, and identification). The manual provides a lengthy discussion of these stages to assist the practitioner in the interpretation of the examinee's responses in terms of age-appropriate dynamic conflicts. Even so, proficient use of this instrument requires a sound psychoanalytic training on the part of the practitioner.

The manual makes no mention of any efforts at empirical validation, and no research with the *Patte Noire* was found. This instrument represents an ideographic approach to projective testing that has a long European tradition, but is far removed from contemporary views on test development.

ROBERTS APPERCEPTION TEST FOR CHILDREN (RATC)

The *Roberts Apperception Test for Children* (McArthur & Roberts, 1982) is a thematic apperception test for children aged 6 through 15. According to the manual, the *RATC* aims “to assess children’s perceptions of common interpersonal situations, as an aid to general personality descriptions and in clinical decision making (p. 1).”

The *RATC* is in many ways characteristic of the new attitude toward thematic

apperception tests for children that evolved during the 1980s. The cards have realistic black-and-white drawings of children interacting in everyday situations. Eleven of the 16 cards have parallel versions for girls and boys; the remaining 5 cards are not gender specific. A parallel version for black children is included.

Each card refers to a certain developmental theme, such as aggression, fear, parent-child relationship, parental disagreement and sexuality. A brief description of each card can be found in the manual. However, the manual does not provide a theoretical validation for these themes, or any other theoretical framework for the meaning of the responses.

The administration of the *RATC* entails the use of all 16 cards in a fixed order. The practitioner gives standardized instructions to the examinee; responses to the first two cards may be clarified by way of five standardized inquiries.

The *RATC* has an elaborate scoring system, with 13 Profile Scales and various Critical Indicators (e.g., Refusal). The various measures are clearly defined and the manual provides detailed instructions and examples for responses scoring. Satisfactory inter-rater agreement was found for most measures. Scores may be compared with normative data, based on a sample of 200 nonclinical children, for four different age groups (no norms are available for the minorities version). The discriminant validity of the *RATC* was confirmed in a study that compared the scores of chronically ill children and healthy children (Palomares, et al., 1991).

In conclusion, the *RATC* goes a long way toward satisfying psychometric criteria by providing quantitative measures of personality variables that can be scored objectively. However, this thematic apperception test has an important drawback in that it lacks a theoretical framework. If the test developers do not specify how the responses are to be understood from a theoretical point of view, it is left to the practitioner to establish the meaning of the responses.

TASKS OF EMOTIONAL DEVELOPMENT (TED) TEST

The *Tasks of Emotional Development Test* (Cohen & Weil, 1971/1975a) purports to assess the social and emotional adjustment of children aged 6 through 18 years. The manual of the TED Test elaborates on its theoretical base, which centers on the concept of developmental tasks derived from Eriksonian ego-psychology, according to which the process of growing up involves certain emotional issues that children must solve. A separate handbook discusses the various developmental tasks portrayed on the cards, such as the establishment of trust in people, the mastery of aggressive feelings toward peers, the development of a conscience with respect to the property of others, and separation from the mother figure (Cohen & Weil, 1975b).

The *TED Test* consists of four sets of 12 cards. Two sets consist of a parallel series for latency-age boys and girls. The other two sets, which are a parallel series for adolescent boys and girls, have a single extra card that is used with both genders. Each card has a black-and-white photograph showing a child (or adolescent) in a situation that represents a specific developmental task, the same developmental tasks are depicted age-appropriately per age group. The pictures have an outdated feel because of the 1950s style clothing and interiors. However, the *TED Test* has strong face validity in that the practitioner will easily recognize the developmental task portrayed by the cards.

The *TED Test* requires a standardized administration: all 12 (or 13) cards are presented in a fixed order. During the administration, the practitioner makes specific inquiries according to clearly specified rules in order to obtain sufficiently scoreable responses.

The elaborate and well-designed scoring system of the *TED Test* is unique. The manual provides a set of clearly formulated categories that allow the practitioner to rate the responses to each card on five dimensions indicating

the degree of maturity with respect to each developmental task. Not surprisingly, good inter-rater reliability was established during test development (Cohen & Weil, 1975b). The manual has normative data for the latency-age group pertaining to the first six cards only.

On publication, the *TED Test* received positive reviews (see Levitt, 1975; Wise, 1975). It continues to be viewed as a worthwhile instrument for child and adolescent assessment because of its sound theoretical validation and the reliability of its objective scoring system (Worchel & Dupree, 1990). The *TED Test* has been used frequently as a research measure (Brody & Hay, 1991; Kinard, 1980, 1982; Krahn, 1985; McCrone, et al., 1994; McIntyre, et al., 1988; Pollak, Cohen, & Weil, 1981; Wagner, 1991).

TELL-ME-A-STORY (TEMAS)

The authors of *Tell-Me-A-Story* (Costantino, et al., 1988), a thematic apperception test for 5- to 18-year-olds, aimed to develop a culturally sensitive thematic apperception test for inner-city children. The theoretical basis of the *TEMAS* is less psychodynamic than that of most thematic apperception tests; this instrument emphasizes the perceptual-cognitive aspects of the projective response. The *TEMAS* has incorporated various developmental and personality theories in its theoretical framework, which is discussed extensively in the manual.

The brightly colored drawings of the *TEMAS* cards portray contemporary inner-city scenes with family and peer interactions. A few cards have fantasy themes (e.g., dragons, dream scenes). A number of cards portray the two opposite positions of a psychological conflict or dilemma, such as spending money as opposed to saving it in a piggy bank (card 10) or working together to repair a bicycle as opposed to fighting (card 12).

The Long Form entails administration of all 23 *TEMAS* cards, but this could be too time-consuming for a busy practitioner (Ritzler, 1993). Alternatively, there

is a Short Form consisting of nine cards. Eleven cards are sex-specific; the remaining cards are used with both sexes. The parallel minority version of the *TEMAS* shows Hispanic or black characters. Test administration is standardized, requiring specific instructions and systematic questioning.

The practitioner evaluates the responses by rating various Personality Functions and Cognitive and Affective Functions. The manual provides numerous scoring examples. Moderate to high inter-rater reliabilities are reported. The manual provides normative data for 5- to 13-year-olds only.

Research on the psychometric properties of the *TEMAS* in the course of test development produced varied results. Internal consistency reliabilities were below .70 for more than half the measures, and this was considered unacceptable by one reviewer (Lang, 1992). Nevertheless, the test developers have published a steady stream of validation research at the Hispanic Research Center of Fordham University, providing evidence for concurrent validity (Malgady, Costantino, & Rogler, 1984) and discriminant validity (Costantino, et al., 1988; Costantino, et al., 1991; Costantino, et al., 1992). Another study demonstrated that the *TEMAS* test has validity as a tool for multicultural assessment (Costantino & Malgady, 1996).

The *TEMAS* is considered an attractive instrument for child and adolescent assessment because of its clear, low-inference scoring system (Ritzler, 1993) and its good construct validity (Lang, 1992; Worchel & Dupree, 1990). Moreover, a thematic apperception test that has been validated for use with children from ethnic minorities is viewed as an important addition, since there are so few instruments for multicultural assessment, (Dana, 1996; Ritzler, 1996).

THEMATIC APPERCEPTION TEST (TAT)

The *Thematic Apperception Test* (Murray, 1943) was originally developed as a method to facilitate the initial stages of therapy by revealing “the dominant

drives, emotions, sentiments, complexes and conflicts of a personality” (Murray, 1943, p. 1), a process that might otherwise take months of analysis. The *TAT* is reviewed here because numerous scoring systems have been developed that would allow its use as an assessment instrument.

The *TAT* contains 31 cards, including one blank card (card 16). The cards are designated as cards for males, boys, females, or girls. Murray recommended that two sets of 10 cards be presented in separate sessions, at least one day apart. In practice, practitioners tend to use their own favorite set of *TAT* cards (Alvarado, 1994). There is no general consensus about the choice of specific cards for adult assessment (Worchel & Dupree, 1990). The lack of instructions regarding card selection inevitably leads to variation and, consequently, unreliable administration.

Although the *TAT* was developed in studies with adults, the manual states that the instrument may be used with children from 4 years of age and older. A 1990 survey showed that the *TAT* is frequently used with adolescents (Archer, et al., 1991). In the manual, however, only three cards (12BG, 13B, and 13G) are designated as cards for children, and only four cards (1, 7GF, 8BM, and 13B) depict a scene that actually includes a child. It is doubtful whether young children can relate to the remaining cards.

The manual gives no indication of the themes that the various cards are likely to elicit in children. Obrzut and Boliek (1986) have suggested, on the basis of their study with 7- to 11-year-olds, that certain cards center on significant developmental themes: cards 1, 8BM, 14, and 17BM (achievement and status goals), cards 3BM, 8BM, 12M, 14, and 17BM (aggression), cards 3BM, 7GF, 13B, and 14 (concern for parental nurturance and rejection), and cards 1, 3BM, 7GF, and 13 (attitudes toward parents and parental punishment).

The *TAT* manual provides some general guidelines for an evaluation of the responses. These guidelines are based on Murray’s personality theory, which revolves around the concepts of “needs” (tendencies in the individual’s

personality) and “presses” (the individual’s perception of forces from the environment). In practice, the *TAT* is generally used as an impressionistic method that is interpreted intuitively (Vane, 1981).

Numerous *TAT* scoring methods have appeared over the years (for a review, see Vane, 1981), but most are complex and time-consuming and, therefore, impractical (Alvarado, 1994; Bellak, 1992). The following three systems may be appropriate for scoring the *TAT* responses of children and adolescents. The *Affect Maturity Scales* by Thompson (1986) are based on the assumption that emotions have their own line of development, in keeping with Anna Freud’s (1963) notion of developmental lines. Unfortunately, no further research with this instrument was found. The *Defense Mechanism Manual (DMM)* was developed by Cramer (1991), based on her outline of the developmental trajectory of three defense mechanisms, namely, denial, projection, and identification. The *DMM* has been researched with 7- to 10-year-olds (Cramer, 1987) and with second and sixth graders (Cramer & Gaul, 1988), and satisfactory inter-rater reliabilities have been reported for all three scales (Cramer, 1996). Westen’s (1991) system for scoring object relations in *TAT* responses, the *Object Relations and Social Cognition Scales (ORSCS)*, was also developed in studies with children and adolescents. Good inter-rater reliabilities have been reported (Westen, Klepser, et al., 1991), and the discriminant validity of the *ORSCS* was established in studies with an adolescent population (Westen, Ludolph, Block, Wixom, & Wiss, 1990) and with sexually or physically abused children (Freedefeld, Ornduff, & Kelsey, 1995; Ornduff, Freedefeld, Kelsey, & Critelli, 1994; Ornduff & Kelsey, 1996).

Although the *TAT* continues to be viewed as a clinically useful method because of its psychodynamic framework, it has limited potential for child assessment. However, the use of theory-based, reliable measures such as the *DMM* and the *ORSCS* provides a sound framework for an evaluation of the *TAT* responses of children and adolescents.

CHOOSING A RELIABLE THEMATIC APPERCEPTION TEST

Today, twelve thematic apperception tests are available to the practitioner for child and adolescent assessment. With the exception of the *TAT* and the *FPT*, all the instruments reviewed were developed specifically for use with children or adolescents. Various points that are relevant for the selection of an assessment instrument, namely, age group, theoretical rationale, card content, and method of response scoring are summarized in the table shown on page 24.

Many thematic apperception tests were originally developed as tools for understanding the child's inner experiences. If the practitioner wishes to use a thematic apperception test for child or adolescent assessment, however, the instrument must be more than an ideographic method; it must also meet basic test requirements of validity and reliability. Ideally, the practitioner should select a thematic apperception test that has a valid theoretical rationale as well as an objective scoring method based on a standardized administration of the test. The twelve thematic apperception tests reviewed here vary considerably with respect to these requirements.

The first requirement for an assessment instrument is reliability of measurement. For thematic apperception tests, this entails standardized administration and a systematic method for evaluating the responses. This review shows that most thematic apperception tests do actually require a standardized administration: the practitioner should use the same instructions with each examinee. The instructions usually consist of asking the examinee to make up a story about each picture, indicating what is happening in the picture, what has led up to these events, what the people are feeling and thinking, and what the outcome will be. Some thematic apperception tests -- the *RATC*, the *TEMAS*, the *CAST*, and the *FAT* -- also require questioning by the practitioner ("probes") to obtain further information for scoring. Administration of the *TED Test* entails even more systematic questioning that is linked to its elaborate scoring system. With this instrument, the practitioner

is required to evaluate the response during administration, in order to use the required number of probes that lead to adequate information for response scoring.

Besides standardized administration, test reliability implies that the instrument should also have an objective scoring system. The validity of projective tests has always been undermined by their lack of reliability in the evaluation of the examinee's responses. In this respect, there is a significant divide between the various thematic apperception tests reviewed here. Poor scoring reliability can be expected with the *TAT*, the *CAT*, and the three early instruments from Europe: too much is left to the practitioner's psychoanalytic skills (with the *TAT*, the *CAT*, and *Patte Noire*) or phenomenological understanding of the examinee (with the *Columbus* and the *FPT*). Two more modern instruments -- the *AAC* and the *CSRPI* -- also lack objective methods for response scoring. Arguably, therefore, these instruments should be used only as therapeutic tools (in the same vein as the *Adoption Story Cards* and the *Projective Story Telling Cards* cited earlier) and not as assessment instruments. An exception is the *TAT* if used together with a reliable scoring system such as the *DMM* (Cramer, 1991) or the *ORSCS* (Westen, 1991).

In contrast, the *CAST*, the *FAT*, the *RATC*, the *TED Test* and the *TEMAS* have objective scoring systems for rating both content and form variables. The quality of the *TED Test* scoring system is exceptional, in that the rating scales ensure not only objective but also highly differentiated scoring per card. In terms of reliability, these five instruments may be viewed as appropriate instruments for child and adolescent assessment.

Standardized administration and scoring are closely linked to the possibilities for test validation. Reliability of data allows research into the psychometric properties of the instrument (e.g. internal consistency) and the collection of normative data, indicating individual differences in a group or positioning the individual within a group. The *CAST*, the *TEMAS*, and the *RATC* have done extensive work in these areas.

CHOOSING A VALID THEMATIC APPERCEPTION TEST

A psychological test should clarify the constructs that it measures, and these constructs should be logically consistent with the general theoretical framework of the test (Pedhazur & Schmelkin, 1991). Of the thematic apperception tests reviewed here, the quality of the theoretical rationale as formulated in the test manual varies widely. In this respect, there is a distinct difference between "first-generation" instruments (e.g., the *TAT*, the *Patte Noire*) and "second-generation" instruments (e.g., the *AAC*, the *CAST*). The theoretical orientation of the former, which were developed mainly on the basis of projective theory within a psychoanalytic framework, is in stark contrast with that of the latter, which exemplify a broader array of developmental theories. Arguably, skilled use of the older thematic apperception tests, with their psychodynamic emphasis, requires thorough psychoanalytic training, while the newer thematic apperception tests are more suited to a general class of practitioners.

Construct validity is an important component of an instrument's general validity. For construct validity in a thematic apperception test, the manual should specify the constructs measured by the cards. The construct validity of the *TAT* card is dubious, since the manual indicates that each card may elicit a variety of themes. The same is true of the *CAT* and the *Patte Noire*, but these instrument arguably do have face validity for practitioners in that each card represents a specific construct from the framework of psychodynamic developmental theory (the *CAT*) or Freudian psychosexual theory (the *Patte Noire*). The two Dutch instruments in the group of early thematic apperception tests, the *FPT* and the *Columbus*, do not clearly delineate the constructs that the cards are supposed to measure. With their emphasis on a phenomenological approach, the authors aimed to develop cards that would be used principally as a method for increasing one's understanding of the examinee's experiential world. In terms of construct validity, the use of these instruments as assessment instruments is not warranted.

The more recently developed thematic apperception tests differ considerably in the extent to which the theoretical foundations of the test are clarified. Both the *RATC* and the *AAC* lack a framework of developmental theory. Consequently, their choice of themes or constructs portrayed on the test cards is quite arbitrary. The *CSRPI* makes no attempt to explain the card content or to link these constructs to a theoretical framework, this inventory must be rejected as a valid assessment instrument.

In contrast, the *CAST*, the *FAT*, the *TEMAS* and the *TED Test* have cards representing specific constructs derived from an explicit theoretical rationale. The *CAST*'s Adlerian underpinnings, albeit thorough, may not appeal to every practitioner. The systems theory framework of the *FAT* provides well-defined constructs, which are clearly represented on the cards, but the combination of projective theory and systems theory in this instrument is debatable. The elaborate theoretical rationale of the *TEMAS*, which incorporates concepts from various schools of developmental psychology, makes it a worthwhile instrument, particularly for practitioners working with multicultural populations. The *TED Test* also has strong construct validity, with each card representing a specific construct, embedded within the sound theoretical framework of developmental tasks. These four thematic apperception tests may be viewed as valid instruments for child and adolescent assessment.

CONCLUSION

This review shows that a number of thematic apperception tests do not meet basic test requirements to justify their use as valid instruments for child and adolescent assessment. An impressionistic interpretation of responses, as prescribed by the *FPT*, the *Patte Noire*, the *Columbus*, the *AAC*, and the *CSRPI*, does not lend itself to reliable measurement. Likewise, the use of *CAT*, in spite of the face validity of the cards, should be discouraged as long as no scoring system of proven reliability is available. The *TAT* remains a worthwhile method for its sound psychodynamic foundations, but can only be considered a valid instrument if the test administration is standardized and a

reliable scoring system such as the *DMM* or the *ORSCS* is used.

In terms of validity, some thematic apperception tests have serious shortcomings. Theoretical rationale and construct definition are vague in the *Columbus*, the *FPT*, and the *AAC*, and entirely lacking in the *CSRPI*. Since the manuals do not define explicit constructs embedded in a theoretical framework, these instruments do not provide the validity required of an assessment instrument. Therefore, these instruments should be used only as tools for therapeutic sessions or interviews, and not as tests. The *RATC*, too, lacks a specific theoretical framework other than the projective hypothesis. This thematic apperception test is laudable in that its scoring system allows reliable measurement, but even reliable data are meaningless without a theoretical rationale that indicates what the test measures and how the data are to be interpreted.

The remaining thematic apperception tests are excellent on both counts of validity and reliability. A drawback to the *FAT* is that the use of thematic apperception cards based on the projective hypothesis is not compatible with its family systems framework. The *CAST*, the *TEMAS* and the *TED Test* are worthwhile instruments currently available to the practitioner for child and adolescent assessment.

CHARACTERISTICS OF TWELVE THEMATIC APPERCEPTION TESTS FOR CHILD AND ADOLESCENT ASSESSMENT					
	Age group	Theoretical framework	Administration	Scoring method *	Normative data
AAC	12-19 years	cognitive theory	not standardized	D	--
CAT	3-10 years	psychodynamic developmental theory	all 10 cards in fixed order	C	--
CAST	6-13 years	Adlerian theory	all 17 cards in fixed order	B	for 6- to 13-year-olds
CSRPI	--	--	not standardized	-	--
Columbus	6-18 years	phenomenological developmental theory	not standardized	D	--
FAT	6-15 years	systems theory	all 21 cards in fixed order	B	--
FPT	from 10 years	phenomenological theory	all 4 cards; no order	D	--
Patte Noire	from 5 years	Freudian psychosexual theory	not standardized	D	--
RATC	6-15 years	--	all 16 cards in fixed order	B	for 6- to 15-year-olds (White version)
TED Test	6-18 years	Eriksonian ego-psychology	all 12 cards in fixed order	A	for 6- to 18-year-olds (cards 1-6 only)

TEMAS	5-18 years	developmental theories	all 23 cards in fixed order	B	for 5- to 13-year-olds
TAT	from 4 years	psychodynamic structural theory	not standardized	C	--

* A = rating scales; B = numeric scoring of measures; C = evaluation of form and content variables; D = impressionistic interpretation

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