

Block

4

PROJECTIVE TECHNIQUES IN PSYCHODIAGNOSTICS

UNIT 1

Introduction to Projective Techniques and Neuropsychological Test	5
--	----------

UNIT 2

Principles of Measurement and Projective Techniques, Current Status with Special Reference to the Rorschach Test	19
---	-----------

UNIT 3

The Thematic Apperception Test and Children's Apperception Test	35
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UNIT 4

Personality Inventories	51
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BLOCK 4 INTRODUCTION

Projective methods of personality assessment provide the clinician with a window through which to understand an individual by the analysis of responses to ambiguous or vague stimuli. These methods are generally unstructured and also call on the individual to create the data from his or her personal experience.

An individual's response(s) to these stimuli can reflect internal needs, emotions, past experiences, thought processes, relational patterns, and various aspects of behaviour. Moreover, projective methods involve the presentation of a stimulus designed to evoke highly individualised meaning and organisation. It will suffice to say that while the instruments may differ, the results of these methods provide ready access to a variety of rich conscious and unconscious material.

Unit 1 first deals with what projective testing is. Here the categories and assumptions of projective tests are discussed. The main projective tests used to assess personality are described. Next some of the core concepts of the discipline of neuropsychological assessment are explained. In this unit we will briefly review the major testing approaches used in contemporary neuropsychology practice.

In **Unit 2** the measurement principles or psychometric properties of projective tests were discussed and a brief discussion of Rorschach along with its psychometric properties and current status was explained.

Unit 3 deals with Thematic Apperception Test. The description, administration, scoring and psychometric properties of TAT and CAT were explained briefly.

In **Unit 4** we have looked at a variety of measures of personality. Most have been personality inventories, made up of a number of scales that are widely used and commercially available.

UNIT 1 INTRODUCTION TO PROJECTIVE TECHNIQUES AND NEUROPSYCHOLOGICAL TEST

Structure

- 1.0 Introduction
- 1.1 Objectives
- 1.2 Projective Techniques
 - 1.2.1 Important Projective Techniques
- 1.3 Categories of Projective Techniques
- 1.4 Basic Assumptions
- 1.5 Projective Testing
 - 1.5.1 The Rorschach Test
 - 1.5.2 The Thematic Apperception Test (TAT)
 - 1.5.3 Projective Drawings
 - 1.5.4 Sentence Completion Techniques
- 1.6 Merits of Projective Tests
- 1.7 Neuropsychological Assessment
- 1.8 Purposes of Neuropsychological Assessment
- 1.9 Dimensions and Level of Assessment
- 1.10 Neuropsychological Testing
- 1.11 Limitations
- 1.12 Let Us Sum Up
- 1.13 Unit End Questions
- 1.14 Suggested Readings

1.0 INTRODUCTION

In this unit, we will first consider what projective testing is. Then we will discuss the categories and assumptions of projective tests. The main projective tests used to assess personality are described. Next we will explain some of the core concepts of the discipline of neuropsychological assessment. In this unit we will briefly review the major testing approaches used in contemporary neuropsychology practice.

1.1 OBJECTIVES

After completing this unit, you will be able to:

- Provide the definition and characteristics of projective techniques;
- Discuss the categories and basic assumptions of projective techniques;
- Describe the different types of projective tests used;
- Explain what neuropsychological assessment is;
- Discuss the purposes and dimensions of neuropsychological assessment; and
- Discuss the most widely used neuropsychological tests.

1.2 PROJECTIVE TECHNIQUES

Projective Techniques are indirect and unstructured methods of investigation which have been developed by the psychologists and use projection of respondents for inferring about underline motives, urges or intentions which cannot be secure through direct questioning as the respondent either resists to reveal them or is unable to figure out himself. These techniques are useful in giving respondents opportunities to express their attitudes without personal embarrassment. These techniques helps the respondents to project his own attitude and feelings unconsciously on the subject under study. Thus Projective Techniques play a important role in motivational researches or in attitude surveys.

Projective technique is any personality test designed to yield information about someone's personality on the basis of their unrestricted response to ambiguous objects or situations. Projective techniques are a set of instruments whose main objective is to describe and characterise personality. The adjective projective is a derivative of 'projection', a concept introduced by Freud in the vocabulary of psychology to describe the design of a defense mechanism leading the subject to transfer to another person, or thing, his urges, feelings, etc., that he cannot accept as belonging to him. However, this concept is not commonly used in the field of projective techniques. Rather, another concept with a less restrictive and specific meaning is used. This means that, in responding to the stimulus situation, the subject reveals or externalises aspects of his own personal life, such as motives, interests, feelings, emotions, conflicts and the like.

To a large extent, the characteristics of the stimuli of the projectives are responsible for this externalisation and have an important effect on the nature and content of the subject's responses. Two such characteristics are the structure and ambiguity of stimuli. The structure refers to the degree of organisation of the stimulus: incompleteness, nearly an organised whole or fully divided, close to or far from being a real representation, etc. The ambiguity concerns the number and variability of responses each stimulus elicits.

1.2.1 Important Projective Techniques

The following are some of the major projective techniques:

- 1) Word Association Test.
- 2) Completion Test.
- 3) Construction Techniques
- 4) Expression Techniques

- 1) **Word Association Test:** An individual is given a clue or hint and asked to respond to the first thing that comes to mind. The association can take the shape of a picture or a word. There can be many interpretations of the same thing. A list of words is given and you don't know in which word they are most interested. The interviewer records the responses which reveal the inner feeling of the respondents. The frequency with which any word is given a response and the amount of time that elapses before the response is given are important for the researcher. For example: Out of 50 respondents 20 people associate the word "Fair" with "Complexion".
- 2) **Completion Test:** In this the respondents are asked to complete an incomplete sentence or story. The completion will reflect their attitude and state of mind.
- 3) **Construction Test:** This is more or less like completion test. They can give you a picture and you are asked to write a story about it. The initial structure is limited and not detailed like the completion test. For eg: 2 cartoons are given and a dialogue is to be written.
- 4) **Expression Techniques:** In this the people are asked to express the feeling or attitude of other people.

Disadvantages of Projective Techniques

- 1) Highly trained interviewers and skilled interpreters are needed.
- 2) Interpreters' bias can be there.
- 3) It is a costly method.
- 4) The respondent selected may not be representative of the entire population.

1.3 CATEGORIES OF PROJECTIVE TECHNIQUES

For many years, the primary testing tools of clinical psychologists were projective techniques such as the Rorschach Inkblot Technique. These techniques have in common the presentation of ambiguous and malleable stimuli to which a large number of different responses can be made. Presumably, the specific responses given by a client reflect something about that individual's psychodynamic functioning. Projective techniques no longer occupy the dominant position they did years ago, but nevertheless continue to be used in clinical practice and research.

Most projective techniques fall into one of five categories, viz.,

- i) **Associative techniques:** The subject responds to a particular stimulus, such as an inkblot or a word, by indicating what the stimulus suggests. The Rorschach Inkblot Technique is a prime example.
- ii) **Construction techniques:** The subject constructs a response, usually in the form of a story, to a stimulus, usually a picture. The prime example here is the Thematic Apperception Test (TAT).
- iii) **Ordering techniques:** This involves placing a set of stimuli in a particular order. Typically the stimuli are a set of pictures, very much like the panels of a newspaper comic strip but the panels are presented in random order, and they need to be placed in order to make a coherent sequence. The Picture Arrangement subtest of the WAIS is sometimes used as an ordering technique.

- iv) Completion techniques: Here the subject responds to a “partial” stimulus. For example, the subject may be given the beginning of a story to complete or a set of sentence stems (e.g., I am always . . .) to complete. Sentence completion tests are a prime example here.
- v) Expressive techniques: The subject engages in some “creative” activity, such as drawing, finger painting, acting out certain feelings or situations (as in psychodrama). The Draw-A-Person test is a good example.

1.4 BASIC ASSUMPTIONS

In general, psychologists believe that behaviour is determined or can be explained by specific principles. If we observe a person verbally or physically attacking others, we label the behaviours as aggressive and we seek explanations for the behaviour, perhaps postulating “frustration” or looking for childhood developmental explanations or antecedent conditions. With projective tests, the assumption is that specific responses reflect the person’s personality and / or psychodynamic functioning. This is based, however, on the questionable assumption that the test protocol presents a sufficiently extensive sampling of the client.

Second, we know that specific behaviours can be strongly influenced by transitory aspects. A person can do well academically in all courses except one, with performance in that course influenced by a dislike for the instructor or some other “chance” factor. Projective tests however, assume that each and every response is indeed basic and reflective of some major personal themes.

The projective viewpoint further assumes that perception is an active and selective process, and thus what is perceived is influenced not only by the person’s current needs and motivation, but by that person’s unique history and the person’s habitual ways of dealing with the world. The more ambiguous a situation the more the responses will reflect individual differences in attempting to structure and respond to that situation. Thus, projective tests are seen as ideal miniature situations, where presentation can be controlled and resulting responses carefully observed.

Self Assessment Questions

- 1) Define projective tests.

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- 2) What are the characteristic features of a projective test ?

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3) What are the five categories of projective tests?

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4) What are the basic assumptions underlying projective tests?

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1.5 PROJECTIVE TESTING

Just as there are numerous objective personality and psychological functioning instruments, there are many projective instruments. Most psychologists use a small number of preferred projective tests—typically the Rorschach, the Thematic Apperception Test (TAT), Projective Drawings, and Incomplete Sentences.

1.5.1 The Rorschach Test

The Rorschach Test is the famous inkblot test (Rorschach, 1921/1942, 1951). Many people are fascinated by the idea of using inkblots to investigate personality and psychological functioning. Of course, many people (including psychologists) are skeptical of projective techniques such as the Rorschach, questioning its validity as a measure of psychological functioning.

The Rorschach consists of 10 inkblots that are symmetrical; that is, the left side of each card is essentially a mirror image of the right side. The same 10 inkblots have been used (in the same order of presentation) since they were first developed by Herman Rorschach in 1921 (Rorschach, 1921/1942). Half of the cards are black, white, and gray, and half use color. While there are several different ways to administer the Rorschach and score, the vast majority of psychologists today use the method developed by John Exner (Exner, 1974, 1976, 1986, 1993, 2003; Exner & Weiner, 1995). Each card is handed to the patient with the question, “What might this be?” The psychologist writes down everything the patient says verbatim. During this free association portion of the test, the psychologist does not question the patient. After all 10 cards are administered; the psychologist shows the patient each card a second time and asks questions that will help in scoring the test. For example, the psychologist might say, “Now I’d like to show you the cards once again and ask you several questions about each card so that I can be sure that I see it as you do.”

With each card, he or she asks a non leading question such as, “What about the card made it look like a _____ to you?” The psychologist looks for answers that will help him or her score the test in several categories such as location (i.e., the area of the blot being used), content (i.e., the nature of the object being described, such as a person, animal, or element of nature), determinants

(i.e., the parts of the blot that the patient used in the response, such as form, colour, shading, and movement), and populars (i.e., the responses typically seen by others). This portion of the test is referred to as the inquiry. Once the test is completed, scoring involves a highly complex system and analysis. Each response is carefully scored based on the content, location, determinants, and quality of the response.

Various aspects of the Rorschach responses are associated with psychological functioning. For example, the frequent use of shading is generally considered to be reflective of anxiety and depression. The use of human movement and adequate number of popular responses are usually associated with adaptive and well-integrated psychological functioning. Numerous responses that attend to minor details of the blots often reflect obsessive compulsive traits. Frequent use of the whitespace around the blot is generally associated with oppositionality and/or avoidance.

1.5.2 The Thematic Apperception Test (TAT)

The TAT (Murray & Bellack, 1942; Tomkins, 1947) was developed during the late 1930s by Henry Murray and Christiana Morgan at Harvard University. The TAT was originally designed to measure personality factors in research settings. Specifically, it was used to investigate goals, central conflicts, needs, press (i.e., factors that facilitate or impede progress towards reaching goals) and achievement strivings associated with Henry Murray's theory of *personology* (Murray, 1938). The TAT consists of 31 pictures (one of which is blank), most all of which depict people rather than objects. Some of the pictures are designed to be administered to males, some to females, and others to both genders (Figure below). Generally only a selected number of cards (e.g., 10) are administered to any one patient.

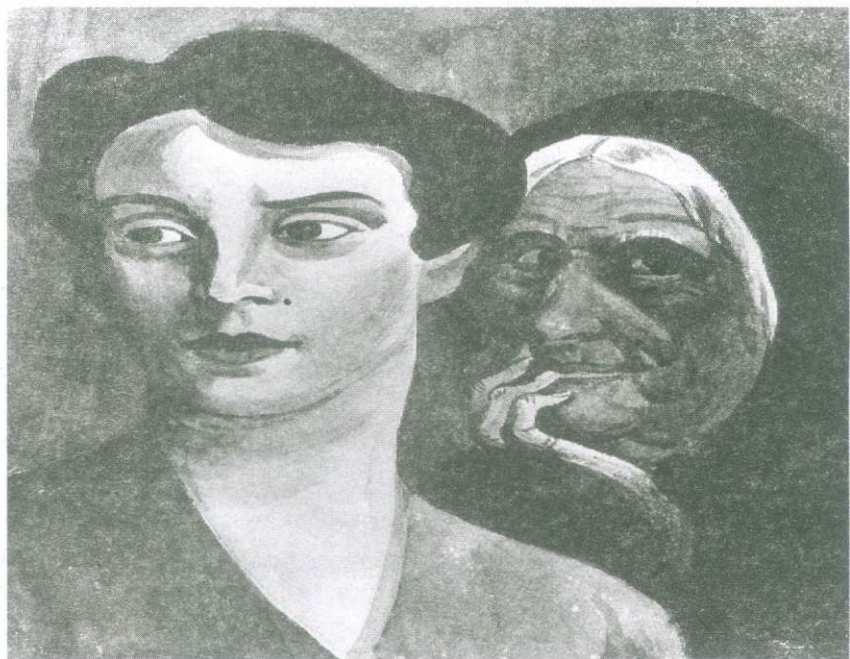


Fig. 1.1: An example of a TAT card

The psychologist introduces the test by telling the patient that he or she will be given a series of pictures and requested to tell a story about each. The patient is instructed to make up a story that reflects what the people in the picture are thinking, feeling, and doing and also to speculate on what led up to the events depicted in the picture and what will happen in the future. After each card is

presented to the patient, the psychologist writes down everything that is said verbatim.

Although a variety of complex scoring approaches have been developed (Murray, 1943; Shneidman, 1951), most clinicians use their clinical experience and judgment to analyse the themes that emerge from the patient's stories. Since clinicians generally do not officially score the TAT, conducting reliability and validity research is challenging.

Other tests similar to the TAT have been developed for special populations, such as the Robert's Apperception Test for Children (RATC; McArthur & Roberts, 1982) for use with elementary school children. The 27 pictures depict children interacting with parents, teachers, and peers. The Children's Apperception Test (CAT; Bellak, 1986) was developed for very young children and depicts animals interacting in various ways.

1.5.3 Projective Drawings

Many clinician's ask both children and adults to draw pictures in order to assess their psychological functioning. Typically, people are asked to draw a house, a tree, a person, and their family doing something together. For the Draw a Person test (Machover, 1949), the House Tree Person Technique (Buck, 1948), and the Kinetic Family Drawing Technique, the patient is instructed to draw each picture in pencil on a separate blank piece of paper and to avoid the use of stick figures.

On the assumption that a drawing tells us some thing about its creator, clinicians often ask clients to draw human figures and talk about them. Evaluations of these drawings are based on the details and shape of the drawing, solidity of the pencil line, location of the drawing on the paper, size of the figures, features of the figures, use of background, and comments made by the respondent during the drawing task. In the *Draw a Person (DAP) Test*, the most popular of the drawing tests, subjects are first told to draw "a person," and then are instructed to draw another person of the opposite sex.

1.5.4 Sentence Completion Techniques

Another projective technique involves the use of sentence completion. There are many different versions of this technique (e.g., Forer, 1957; P. A. Goldberg, 1965; Lanyon & Lanyon, 1980; Rotter, 1954; Rotter & Rafferty, 1950). The patient is presented (either orally by the examiner or in writing through a questionnaire) a series of sentence fragments. These might include items such as, "When he answered the phone he —————" or "Most mothers are —————." The patient is asked to give the first response that he or she thinks of and complete the sentence. Again, like projective drawings and the TAT, several scoring systems have been developed to assist in interpretation.

However, these scoring approaches are generally used only in research settings. Most clinicians prefer to use their own experience and clinical judgment to interpret the themes that emerge from the completed sentences.

1.6 MERITS OF PROJECTIVE TESTS

Until the 1950s, projective tests were the most common technique for assessing personality. In recent years, however, clinicians and researchers have relied on them largely to gain "supplementary" insights. One reason for this shift is that

practitioners who follow the newer models have less use for the tests than psychodynamic clinicians do. Even more important, the tests have rarely demonstrated much reliability or validity.

In reliability studies, different clinicians have tended to score the same person's projective test quite differently. Standardized procedures for administering and scoring the tests have been developed in order to improve scoring consistency, but research suggests that the reliability of projective tests remains weak even when such procedures are used (Wood et al., 2000; Lilienfeld et al., 2000).

Research has also challenged the validity of projective tests. When clinician's try to describe a client's personality and feelings on the basis of responses to projective tests, their conclusions often fail to match the self-report of the client, the view of the psychotherapist, or the picture gathered from an extensive case history. Another validity problem is that projective tests are sometimes biased against minority ethnic groups. For example, people are supposed to identify with the characters in the Thematic Apperception Test (TAT) when they make up stories about them, yet no members of minority groups are in the TAT pictures. In response to this problem, some clinicians have developed other TAT like tests with African American, Hispanic or Indian figures.

Self Assessment Questions

- 1) Projective techniques typically involve
 - a) a set of inkblots
 - b) an ambiguous set of stimuli
 - c) true-false statements
 - d) multiple choice items
- 2) The Rorschach Inkblot Technique is an example of a(n) technique.
 - a) associative
 - b) construction
 - c) ordering
 - d) completion
- 3) In presenting the Rorschach Inkblots to a client, the sequence of presentation:
 - a) is always the same
 - b) is up to the administrator
 - c) changes with the client's gender
 - d) does not much matter
- 4) The TAT consists of
 - a) two sets of 45 inkblots
 - b) a series of stories chosen for their emotional impact
 - c) a series of pictures depicting the adventures of Blacky
 - d) a set of 31 pictures, most of which are ambiguous

- 5) The theory behind the TAT focuses on:
 - a) achievement and failure
 - b) castration anxiety
 - c) needs and presses
 - d) self-esteem and competence
- 6) What are the merits of projective techniques?
 - a) When the Draw-A-Man is used as a measure of intelligence, using modern scoring systems like Naglieri's, the results indicate:
 - b) low but generally satisfactory reliability
 - c) higher reliability for each of the drawings than for total score
 - d) poor inter-rater reliability but acceptable test-retest
 - e) substantially high reliability with typical coefficients in the low .90s

1.7 NEUROPSYCHOLOGICAL ASSESSMENT

Organic injury to the brain can have complex and interacting psychological effects, not only at the level of intellectual impairment but also at the levels of affective and behavioural disturbance. These sequel may be directly or indirectly caused by the brain injury, and may vary in severity from those which are gross and obvious to those which are subtle and detectable only on detailed assessment. Nevertheless, even those which are subtle can have pervasive effects on a patient's social and occupational functioning, whilst those which are gross may arise from a variety of causes with different treatment implications. In either case, neuropsychological assessment can be highly important to clarification of the problem, to prediction of the functional consequences and to the development of appropriate interventions or environmental adaptations.

To illustrate this, consider the case of a young man who has sustained a head injury in an assault. A year after the incident he has made a good physical recovery, but is very aggressive and has lost his job as a sales manager because of hostility towards colleagues and a general lack of organisation in his work. These problems might, on the one hand, arise from organic damage to regions of the brain involved in the genesis or inhibition of aggression, or, on the other, be a psychological reaction to some more subtle cognitive deficit such as a generalised reduction in the efficiency with which information is processed or a mild but specific impairment of memory. In the former case, a pharmacological treatment to control the emotional reactions might be most appropriate, whilst in the latter it would be more relevant to address the underlying cognitive deficit directly and/or help the patient adjust his lifestyle and outlook to his new limitations.

1.8 PURPOSES OF NEUROPSYCHOLOGICAL ASSESSMENT

The form taken by any neuropsychological assessment will depend critically on the question which is to be answered. Frequent purpose for assessment includes the following:

- Description and measurement of organically based cognitive deficits.
- Differential diagnosis (e.g. to ascertain whether memory problems arise from organic injury or mood disturbances).
- Prediction of the consequences of neurosurgical excision of brain tissue (e.g. the cost-benefits likely to accrue from a temporal lobectomy).
- Monitoring improvement or deterioration associated with recovery from, or exacerbation of, a neurological condition.
- Evaluation of the neuropsychological effects, positive or adverse, of pharmacological and non-pharmacological treatments (e.g. to determine whether a psychological intervention has improved attention, or whether an anticonvulsant might impair learning).
- Guiding rehabilitation strategies.
- Predicting or explaining deficits in social, educational, or occupational functioning.
- Medico-legal evaluations (e.g. contributing to determination of compensation awards, ascertaining fitness to plead, etc.).

1.9 DIMENSIONS AND LEVEL OF ASSESSMENT

The extensiveness of, and methods employed within, any individual assessment will be largely determined by the specific referral question, though a wide range of other factors will also be influential. These will include characteristics of the patient which affect his or her ability or willingness to carry out certain tests, as well as resource based considerations, such as the location in which the assessment is to take place, or the amount of time which is available.

A major element of many neuropsychological assessments is evaluation of the patient's intellectual functioning, usually tested via formal pen and paper or computerized test procedures. However, this is neither the only form of assessment used nor necessarily the most important. If the presenting problem is one of behavioural or emotional disturbance, assessment may concentrate on the systematic collection of information either from the patient or from others concerning factors which may influence its occurrence. Thus, although neuropsychological assessment is often perceived as a special form of cognitive assessment, it is very often much broader than this. In practice, a referral to a neuropsychologist will often result in a multidimensional assessment in which the presenting problem is analysed from a number of perspectives rather than just one. Sometimes there may be no formal testing, if the pertinent information can be gleaned from systematic behavioural observations and interviews.

At a general level, the purpose of neuropsychological assessment may be categorized into those which are primarily descriptive and those which are explanatory. The former represents an attempt to identify the type and severity of any problems, while the latter entails more theoretically driven procedures designed to illuminate the causes or consequences of an observed deficit. These two aspects will be differentially important depending on the nature of the initial question. So, if the purpose of the assessment is to quantify the extent of any memory deficits (e.g. for the purposes of monitoring change over time, or for medico-legal purposes), then a standardized measurement of different aspects of the patient's memory

relative to their general intellectual level may suffice. By contrast, if the purpose of the assessment is to determine why the patient has difficulty in remembering information in daily life and to make therapeutic recommendations, then more detailed probing of potential causes for the memory problem become relevant. For instance, it may be that the memory deficit is secondary to poor concentration or impaired perception, or that it is related to the form in which the information is presented (e.g. verbally vs. visually). If the assessment clarifies the mechanisms underlying the patient's problems, then treatment can focus specifically on these.

Descriptive assessments will also vary in terms of their breadth, and this again is likely to reflect the referral question. In one case the requirement may be to determine whether a brain injury has resulted in any impairment, whilst in another the emphasis may be particularly on a certain aspect of the patient's functioning. The basis for focusing on one aspect more than on others may consist in observations which have already been made (e.g. that the patient appears forgetful) or on the basis of what is known about the etiology or location of the brain injury (e.g. that there is a focal lesion to a part of the brain which is implicated in memory functions). The prediction of neuropsychological sequelae which are likely to arise from damage to specified areas of the brain has become an increasingly sophisticated exercise over the last decade with the emergence of complex information processing models of cognitive function.

1.10 NEUROPSYCHOLOGICAL TESTING

Brain impairment due to head injury, substance abuse, stroke, or other illnesses and injuries often impact the cognitive ability to use language, think and make appropriate judgments, adequately perceive and respond to stimuli, and remember old or new information. Neuropsychological testing assesses brain behaviour skills such as intellectual, abstract reasoning, memory, visual-perceptual, attention, concentration, gross and fine motor, and language functioning.

Neuropsychological tests include test batteries as well as individual tests. The Halstead Reitan Battery (Boll, 1981; Halstead, 1947; Reitan & Davison, 1974) and the Luria Nebraska Battery (Golden, Hammek, & Purisch, 1980) are the most commonly used test batteries with adults. The Halstead Reitan Battery can be administered to persons aged 15 through adulthood and consists of 12 separate tests along with the administration of the MMPI-2 and the WAIS-III. The battery takes approximately 6 to 8 hours to administer and provides an overall impairment index as well as separate scores on each subtest assessing skill such as memory, sensory-perceptual skills, and the ability to solve new learning problems. Other versions of the test are available for children between ages 5 and 14.

The Luria Nebraska Battery consists of 11 subtests for a total of 269 separate testing tasks. The subtests assess reading, writing, receptive and expressive speech, memory, arithmetic, and other skills. The Luria Nebraska battery takes about 2.5 hours to administer.

Another neuropsychological testing approach is represented by the Boston Process Approach (Delis, Kaplan, & Kramer, 2001; Goodglass, 1986; E. Kaplan et al., 1991; Milberg, Hebben, & Kaplan, 1986). The Boston process approach uses a variety of different tests depending upon the nature of the referral question. Rather than using a standard test battery, the Boston Process Approach uses a subset of a wide variety of tests in order to answer specific neuropsychological questions. Performance on one test determines which tests or subtests, if any, will

be used next. The testing process could be short or long involving few or many tests and subtests depending upon what is needed to adequately evaluate strengths and weaknesses in functioning. For example, if a neuropsychological evaluation of a head injured patient was to focus on memory skills following a car accident, several tests would be considered for use. These might include the Benton Visual Retention Test, the Wechsler Memory Scale-III, and the Wisconsin Card Sorting Test. Each of these tests measure a different facet of memory functioning. Results provide a clearer picture of short and long term memory as well as visual, auditory, and sensory memory. If, during testing, language problems were detected, the receptive and expressive language sections of the Luria Nebraska might be added to the battery to assess language skills. The language assessment might help to better understand the relationship between memory and language skills in this patient.

Some of the commonly used individual neuropsychological tests include the Wechsler Memory Scale-III (Wechsler, 1997), the Benton Visual Retention Test (Benton, 1991), the WAIS-R as a Neuropsychological Instrument (E. Kaplan et al., 1991), the WISC-III as a Process Instrument (E. Kaplan et al., 1999), the Kaufman Short Neuropsychological Assessment Procedure (K-SNAP; Kaufman & Kaufman, 1994), the California Verbal Learning Test (Delis, Kramer, Kaplan, & Ober, 1987, 2000) and the California Verbal Learning Test Children's Version (Delis, Kramer, Kaplan, & Ober, 1994), and the Wisconsin Card Sorting Test (Grant & Berg, 1993).

The Delis Kaplan Executive Function System (D-KEFS; Delis, Kaplan, & Kramer, 2001) provides a comprehensive evaluation of executive functioning or high level thinking and processing as well as cognitive flexibility. It can be administered to both children and adults from ages 8 through 89. It assesses the integrity of the frontal lobe area of the brain, and examines potential deficits in abstract and creative thinking. The D-KEFS consists of 9 subtests including the Sorting, Trail Making, Verbal Fluency, Design Fluency, Color-Word Interference, Tower, 20 Questions, Word Context, and the Proverb tests. These tests measure various aspects of cognitive functioning that reflect strengths and weaknesses associated with brain behaviour relationships. Results from these tests are compared with norms to develop a clearer understanding of the interaction between brain functioning and behaviour, emotions, and thoughts as well as to help locate the site of brain impairment.

Some authors have suggested that physiological tests such as evoked potentials, electroencephalography (EEG), and reaction time measures may be useful in the assessment of intelligence and cognitive abilities (Matarazzo, 1992; Reed & Jensen, 1991). Evoked potentials assess the brain's ability to process the perception of a stimulus, and EEG measures electrical activity of the brain. Although psychologists are currently not licensed to administer or interpret neuro imaging techniques such as computerized axial tomography (CAT), magnetic resonance imaging (MRI), and positron emission tomography (PET), these techniques allow examination of brain structure and function, which is useful in assessing brain behaviour relationships such as cognitive abilities. For example, cortical atrophy, shrinkage, or actual loss of brain tissue has been associated with schizophrenia, Alzheimer's disease, anorexia nervosa, alcoholism, and mood disorders.

Contemporary neuropsychological testing integrates specialized tests along with additional sources of information. The tests are often used in conjunction with data obtained from clinical interviews, behavioural observations, and other cognitive,

personality, and physiological assessment tools. Thus, neuropsychological testing is not isolated from other evaluation techniques used by contemporary clinical psychologists. While neuropsychological assessment is a subspecialty of clinical psychology, it overlaps with many of the skills and techniques of general clinical psychologists. In addition to specialised testing, neuropsychologists must have a high level of understanding of brain structure and functioning.

1.11 LIMITATIONS

Neuropsychological tests in general have a number of limitations. Prigatano and Redner (1993) identify four major ones:

- Not all changes associated with brain injury are reflected in changed test performance;
- Test findings do not automatically indicate the reason for the specific performance;
- Neuropsychological test batteries are long to administer and therefore expensive; and
- A patient's performance is influenced not just by brain dysfunction but also by a variety of other variables such as age and education.

Self Assessment Questions

- 1) The Halstead-Reitan battery takes about to administer.
 - a) 15 minutes
 - b) two hours
 - c) five hours
 - d) eight hours
- 2) Most of the subtests used in the Halstead-Reitan
 - a) were developed specifically for this battery
 - b) were actually borrowed from other procedures
 - c) are very sound psychometrically
 - d) are easy to administer and score
- 3) The Luria-Nebraska Battery consists of ——— subtests.
 - a) 11
 - b) 8
 - c) 10
 - d) 5
- 4) The Delis-Kaplan Executive Function System assesses the integrity of the—
—— area of the brain.
 - a) Temporal lobe
 - b) Parietal lobe

- | |
|---|
| <ul style="list-style-type: none">c) Frontal lobed) Occipital lobe <p>5) Physiological tests such as evoked potentials, electroencephalography (EEG), and reaction time measures may be useful in the assessment of</p> <ul style="list-style-type: none">a) personalityb) intelligence and cognitive abilitiesc) motivationd) stress |
|---|

1.12 LET US SUM UP

Projective tests use ambiguous or unstructured testing stimuli. Subjects are asked to respond freely to the testing stimuli such as telling stories about pictures, describing what they see in an inkblot, or saying the first thing that comes to their mind when hearing a word or sentence fragment. The most common projective tests used include the Rorschach, the TAT, Incomplete Sentences, and Drawings.

The neuropsychological approach relies on the use of tests in which poor performance may indicate either focal (localised) or diffuse (widespread) brain damage. Neuropsychological assessment serves several purposes. First, it can give a 'neurocognitive' profile of an individual, identifying both strengths and weaknesses. A second advantage is that repeated testing over time can give an insight into changes in cognitive functioning that may relate either to recovery after accident/injury or the progression of a neurological illness. Usually, a series of tests (called a test battery) will be given. The most widely used batteries are the Halstead Reitan and The Luria Nebraska test battery.

1.13 UNIT END QUESTIONS

- 1) What is projective testing and discuss the categories of projective tests?
- 2) Discuss in brief the major projective tests used in clinical psychology?
- 3) What is neuropsychological assessment?
- 4) Discuss the purpose and dimensions of neuropsychological assessment?
- 5) Briefly describe some of the widely used neuropsychological tests?
- 6) Why use batteries like the Halstead-Reitan when brain functioning can now be assessed through a number of medical procedures?

1.14 SUGGESTED READINGS

Groth- Marnat, Gary. (2003). *Handbook of Psychological Assessment* (4thed.). New Jersey: John Wiley & Sons, Inc.

Hebban, N., Milberg, W. (2002). *Essentials of Neuropsychological Assessment*. New York: John Wiley & Sons, Inc.

UNIT 2 PRINCIPLES OF MEASUREMENT AND PROJECTIVE TECHNIQUES, CURRENT STATUS WITH SPECIAL REFERENCE TO THE RORSCHACH TEST

Structure

- 2.0 Introduction
- 2.1 Objectives
- 2.2 The Nature of Projective Tests
- 2.3 Clinical Usefulness
- 2.4 Measurement and Standardization
 - 2.4.1 Standardization
 - 2.4.2 Reliability
 - 2.4.3 Validity
- 2.5 The Rorschach Test
 - 2.5.1 Description
 - 2.5.2 Administration
 - 2.5.3 Scoring
- 2.6 Reliability and Validity of Rorschach Scores
- 2.7 Rorschach Inkblot "Method"
- 2.8 Current and Future Status
- 2.9 Let Us Sum Up
- 2.10 Unit End Questions
- 2.11 Suggested Readings

2.0 INTRODUCTION

This unit deals with principles of measurement and projective techniques, current status with special reference to the Rorschach Test . We begin the unit with the Nature of Projective Tests, followed by the clinical Usefulness of the Rorschach Test. Then we take up the measurement and standardization of the Rorschach Test and within which we discuss the standardization of the test, its reliability and validity. Then we take up the Rorschach Test description under which we present the description of the test, how to administer, score and interpret. Then we discuss the reliability, validity of the Rorschach Test scores . Then we proceed with the discussion of the Rorschach Inkblot method, its current and future status.

2.1 OBJECTIVES

After reading this unit, you should be able to:

- Describe and discuss the nature of projective tests;
- Discuss the measurement principles such as reliability, validity etc. of projective tests;
- Provide the description, administration and scoring of Rorschach;
- Discuss the reliability and validity of Rorschach; and
- Discuss the current and future status of Rorschach.

2.2 THE NATURE OF PROJECTIVE TESTS

Projective techniques have a long and rich history. William Shakespeare wrote about the projective qualities of clouds, and William Stern used clouds as test stimuli before Rorschach and his inkblots. Sir Francis Galton (1879) suggested word association methods and Kraepelin made use of them. Binet and Henri (1896) experimented with pictures as projective devices. Alfred Adler asked patients to recall their first memory, which is also a kind of projective approach. However, the real impetus for projective techniques can be traced to Hermann Rorschach's classic 1921 monograph, in which he described the use of inkblots as a method for the differential diagnosis of psychopathology. Later in the 1920s, David Levy brought the inkblot test to America, and it was not long before Beck, Klopfer, and Hertz all began teaching Rorschach courses. In 1935, Morgan and Murray introduced the Thematic Apperception Test (TAT), and in 1938, Murray carefully described the process of projection. The term *projective* really came into popular use following L. K. Frank's widely discussed 1939 paper on projective methods.

For some, the definition of a projective test resides in Freudian notions regarding the nature of ego defenses and unconscious processes. However, these do not seem to be essential characteristics.

Over the years, many definitions have been offered. Perhaps the easiest solution is a pragmatic one that comes from consulting the English and English (1958) psychological dictionary, which defines a projective technique as "a procedure for discovering a person's characteristic modes of behaviour by observing his behaviour in response to a situation that does not elicit or compel a particular response." Projective techniques, taken as a whole, tend to have the following distinguishing characteristics (Rotter, 1954):

- 1) In response to an unstructured or ambiguous stimulus, examinees are *forced to impose their own structure* and, in so doing, reveal something of themselves (such as needs, wishes, or conflicts).
- 2) The stimulus material is *unstructured*. This is a very tenuous criterion, even though it is widely assumed to reflect the essence of projective techniques. For example, if 70% of all examinees perceive Card V on the Rorschach as a bat, then we can hardly say that the stimulus is unstructured. Thus, whether a test is projective or not depends on the kinds of responses that the individual is encouraged to give and on how those responses are used. The instructions are the important element. If a patient is asked to classify the people in a set of TAT cards as men or women, then there is a great deal of structure, that is the test is far from ambiguous. However, if the patient is asked what the

people on the card are saying, the task has suddenly become quite ambiguous indeed.

- 3) The method is *indirect*. To some degree or other, examinees are not aware of the purposes of the test; at least, the purposes are disguised. Although patients may know that the test has something to do with adjustment-maladjustment, they are not usually aware in detail of the significance of their responses. There is no attempt to ask patients directly about their needs or troubles; the route is indirect, and the hope is that this very indirectness will make it more difficult for patients to censor the data they provide.
- 4) There is *freedom of response*. Whereas questionnaire methods may allow only for a "yes" or a "no", response, projectives permit a nearly infinite range of responses.
- 5) Response interpretation deals with *more variables*. Since the range of possible responses is so broad, the clinician can make interpretations along multiple dimensions (needs, adjustment, diagnostic category, ego defenses, and so on). Many objective tests, in contrast, provide but a single score (such as degree of psychological distress), or scores on a fixed number of dimensions or scales.

2.3 CLINICAL USEFULNESS

There is little doubt that in the hands of a skilled and sensitive clinician, projective techniques can yield useful information and individual practitioners can utilise these measures to elicit superb psychodynamic portraits of a patient, and to make accurate predictions about future behaviour. Given this, why is there need for scientific validation? MacFarlane and Tuddenham (1951) provided five basic answers to this question:

1) A social responsibility

Projective tests are misused, and we need to know which types of statements can be supported by the scientific literature and which cannot.

2) A professional responsibility

Errors of interpretation can be reduced and interpretive skills sharpened by having objective validity data.

3) A teaching responsibility

If we cannot communicate the basis for making specific inferences, such as "this type of response to card 6 on the Rorschach typically means that . . .," then we cannot train future clinicians in these techniques.

4) Advancement of knowledge

Validity data can advance our understanding of personality functioning, psychopathology, etc.

5) A challenge to research skills

As scientists, we ought to be able to make explicit what clinicians use intuitively and implicitly.

Self Assessment Questions

- 1) Define projective tests.

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- 2) What are the characteristics of projective techniques?

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- 3) In what ways projective techniques are clinically useful?

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- 4) Why is there a need for scientific validation of the projective techniques?

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2.4 MEASUREMENT AND STANDARDIZATION

The contrasts between objective tests and projective tests are striking. The former, by their very nature, lend themselves to an actuarial interpretive approach. Norms, reliability, and even validity seem easier to manage. The projective tests, by their very nature, seem to resist psychometric evaluation. Indeed, some clinicians reject even the suggestion that a test such as the Rorschach should be subjected to the indignities of psychometrics; they would see this as an assault upon their intuitive art. In this section, we offer several general observations about the difficulties involved in evaluating the psychometric properties of projective tests.

2.4.1 Standardization

Should projective techniques be standardized? There are surely many reasons for doing so. Such standardization would facilitate communication and would also serve as a check against the biases and the interpretive zeal of some clinicians. Furthermore, the enthusiastic proponents of projective tests usually act as if they have norms (implicit though these may be) so that there seems to be no good

reason not to attempt the standardization of those norms. Of course, research problems with projective tests can be formidable.

The dissenters argue that interpretations from projective tests cannot be standardized. Every person is unique, and any normative descriptions will inevitably be misleading. There are so many interacting variables that standardized interpretive approaches would surely destroy the holistic nature of projective tests. After all, they say, interpretation is an art.

2.4.2 Reliability

Even the determination of reliability turns out not to be simple. For example, it is surely too much to expect an individual to produce, word for word, exactly the same TAT story on two different occasions. Yet how many differences between two stories are permissible? Of course, one can bypass test responses altogether and deal only with the reliability of the personality interpretations made by clinicians. However, this may confound the reliability of the test with the reliability of the judge. Also, test retest reliability may be affected by psychological changes in the individual, particularly when dealing with patient populations. It is true that clinicians can opt for establishing reliability through the use of alternate forms. However, how do they decide that alternate forms for TAT cards or inkblots are equivalent? Even split-half reliability is difficult to ascertain because of the difficulty of demonstrating the equivalence of the two halves of each test.

2.4.3 Validity

Because projective tests have been used for such a multiplicity of purposes, there is little point in asking general questions: Is the TAT valid? Is the Rorschach a good personality test? The questions must be more specific:

Does the TAT predict aggression in situation A?

Does score X from the Rorschach correlate with clinical judgments of anxiety?

With these issues in mind, we turn now to a discussion of the Rorschach Test.

Self Assessment Questions

1) What is meant by standardization?

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2) What is reliability of a test?

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3) What is validity of a test?

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4) Why is measurement and standardization of tests important?

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2.5 THE RORSCHACH TEST

The Rorschach is often mentioned in television shows or in films depicting psychological evaluations. Curiously, the idea of seeing objects in inkblots came from a common game in the 1800s called Blotto. Someone would put a drop of ink on a blank piece of paper and fold the paper in half, creating a unique inkblot. Others would then take turns identifying objects in the inkblots. Alfred Binet used this technique to examine imagination among children. Swiss psychiatrist Hermann Rorschach noticed that mental patients tended to respond very differently to this game relative to others. Thus, Blotto became the basis for the Rorschach test.

Although the origins of the Rorschach Test lies in Europe, its subsequent development and elaboration occurred in the United States (Exner, 1993). Disenchantment with objective inventories probably facilitated this development (Shneidman, 1965). However, the general rise of the psychodynamic, psychoanalytic movement and the emigration of many of its adherents from Europe to the United States in the 1930s were also important.

What has confused many and perhaps impeded efforts to demonstrate reliability and validity is the fact that there are several different general Rorschach approaches. For example, in the past, Klopfer, Beck, Hertz, Piotrowski, and Rapaport each offered the scoring and the interpretation of Rorschach systems (Exner, 1993). The systems differ in the manner in which they administer, score, and interpret the results of the test and in the instructions they provide to examinees. This has created many problems in interpreting the results of research studies and in generalising from one study to another. In addition, Exner and Exner (1972) discovered that 22% of the clinicians they surveyed did not formally score the Rorschach at all, and 75% reported that when they did use a scoring system, it was a highly idiosyncratic one. However, it is now virtually a requirement for research publication that Rorschach protocols should be scored in a systematic fashion and that adequate inter scorer agreement be demonstrated (Weiner, 1991). At a minimum, it is expected that the Rorschach responses should be scored similarly by independent raters.

2.5.1 Description

The Rorschach consists of ten cards on which are printed inkblots that are symmetrical from right to left. Five of the ten cards are black and white (with

shades of gray), and the other five are colored. A simulated Rorschach card is shown in Figure below.

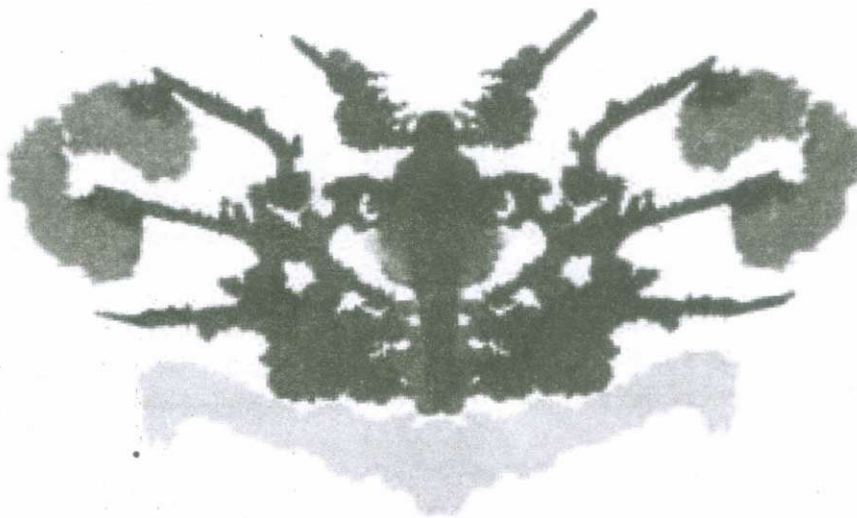


Fig. 2.1 : An inkblot similar to those used in the Rorschach test

(Source: net)

2.5.2 Administration

There are various techniques for administering the Rorschach Test. However, for many clinicians, the process goes something like this. The clinician hands the patient the first card and says, "Tell me what you see. What it might be for you. There are no right or wrong answers. Just tell me what it looks like to you."

All of the subsequent cards are administered in order. The clinician takes down verbatim everything the patient says. Some clinicians also record the length of time it takes the patient to make the first response to each card as well as the total time spent on each card. Some patients produce many responses per card, and others produce very few. The clinician also notes the position of the card as each response is given (right side up, upside down, or sideways). All spontaneous remarks or exclamations are also recorded.

Following this phase, the clinician moves to what is called the Inquiry. Here, the patient is reminded of all previous responses, one by one, and asked what it was that prompted each response. The patient is also asked to indicate for each card the exact location of the various responses. This is also a time when the patient may elaborate or clarify responses.

2.5.3 Scoring

Although Rorschach scoring techniques vary, most employ three major criteria.

- i) Location refers to the area of the card, to which the patient responded. The whole blot, a large detail, a small detail, white space, and so on.
- ii) Content refers to the nature of the object seen (an animal, a person, a rock, fog, clothing, etc.).
- iii) Determinants refer to those aspects of the card that prompted the patient's response (the form of the blot, its color, texture, apparent movement, shading, etc.).

Some systems also score popular responses and original responses (often based on the relative frequency of certain responses in the general population). Currently, Exner's Comprehensive System of scoring is the most frequently used (Exner, 1974, 1993). Although the specifics of this scoring system are beyond the scope of this unit (a total of 54 indices are calculated in Exner's Structural Summary), a number of resources are available that provide details on the Comprehensive System (including Exner, 1991, 1993). The actual scoring of the Rorschach Test involves such things as compiling the number of determinants, computing their percentages based on the total number of responses, and computing the ratio of one set of responses to another set (e.g., computing the total number of movement responses divided by the number of color responses).

Indeed, the layperson is often surprised to learn that orthodox scoring of the Rorschach Test is much more concerned with the formal determinants than with the actual content of the responses. However, many contemporary clinicians do not bother with formal scoring at all, preferring to rely on the informal notation of determinants. Furthermore, these clinicians tend to make heavy use of content in their interpretations.

As mentioned earlier, the Rorschach Test interpretation can be a complex process. For example, a patient's over use of form may suggest conformity. Poor form, coupled with unusual responses, may hint at psychosis. Color is said to relate to emotionality, and if it is not accompanied by good form, it may often indicate impulsivity. Extensive use of white spaces has been interpreted as indicative of oppositional or even psychopathic qualities. Use of the whole blot points to a tendency to be concerned with integration and to be well organized. Extensive use of details is thought to be correlated with compulsivity or obsessional tendencies.

But content is also important. Seeing small animals might mean passivity. Responses of blood, claws, teeth, or similar images could suggest hostility and aggression. Even turning a card over and examining the back might lead to an interpretation of suspiciousness. However, it is important that the student should treat these as examples of potential interpretations or hypotheses and not as successfully validated facts!

We conclude our discussion of the Rorschach Test with some general evaluative comments. As previously mentioned, the most comprehensive approach to scoring has been developed by Exner (1974, 1993). His system incorporates elements from the scoring systems of other clinicians. Exner and his associates have offered a substantial amount of psychometric data, evidence of stable test retest reliability, and construct validity studies. It is a promising, research based approach that warrants careful attention from clinicians who choose to use the Rorschach Test. However, it is also important to note that many of the reliability and validity studies cited by Exner have been challenged (Wood, Nezworski, Lilienfeld, & Garb, 2003; Wood, Nezworski, & Stejskal, 1996). Next we discuss current perspectives on the reliability and validity of Rorschach Test scores.

Self Assessment Questions

- 1) Define the Rorschach Test.

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2) Give a description of the Rorschach Test.

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3) How is the Rorschach Test administered?

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4) What are the various categories of scoring in the Rorschach Test?

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2.6 RELIABILITY AND VALIDITY OF RORSCHACH SCORES

Research oriented clinical psychologists have questioned the reliability of the Rorschach Test scores for years (Wood et al., 2003). As we mentioned previously, at the most basic level, one should be confident that the Rorschach Test responses can be scored reliably across raters. If the same Rorschach Test responses cannot be scored similarly by different raters using the same scoring system, then it is hard to imagine that the instrument would have much utility in clinical prediction situations. Unfortunately, the extent which the Rorschach Test scoring systems meet acceptable standards for this most basic and straightforward form of reliability remains contentious. For example, in a recent rather heated exchange, Meyer (1997a, 1997b) reported that evidence indicates “excellent” inter rater reliability for Exner’s scoring system, but Wood, Nezworski, and Stejskal (1997) remained unconvinced by his new reliability analyses and results.

Although inter scorer reliability is important to address, we must also evaluate the consistency of an individual’s scores across time or test conditions as well as the reliability of score interpretations. Weiner (1995) argues that frequent retests (even on a daily basis) are possible because “the basic structure and thematic focus of their Rorschach data tends to remain the same” (p. 335). However, we are not aware of a large body of empirical studies that support the stability of Rorschach summary scores. The limited available evidence does tend to support the stability over time of summary scores believed to reflect trait-like dispositions (Meyer, 1997a; Weiner, Spielberger, & Abeles, 2002), but more evidence is needed to address this question.

Of crucial importance is the reliability of clinicians’ interpretations. This important

but relatively neglected type of reliability is crucial for measures like the Rorschach. It is quite probable that two clinicians trained together over several years can achieve reliability in their interpretations. However, what about two clinicians with no common training? The proliferation of formal scoring systems, coupled with the tendency of so many clinicians to use freewheeling interpretive approaches, makes the calculation of this type of reliability difficult.

As for validity of the Rorschach Test scores and interpretations, there have been many testimonials over the years. When skilled, experienced clinicians speak highly of an instrument, those in the field listen. But at some point, these testimonials must give way to hard evidence. From the vast Rorschach literature, it is apparent that the test is not equally valid for all purposes. In a very real sense, the problem is not one of determining whether the Rorschach is valid but of differentiating the conditions under which it is useful from those under which it is not. For many years, a procedure involving interpretation of the Rorschach Test responses with almost no other information about the patient was used to assess Rorschach Test validity. Even when Rorschach response protocols are submitted for analysis in this manner, however, identifying cues are often present. For example, the Rorschach protocols of 10-year olds may be combined in one study with those of 60 year olds. Sometimes the protocols are sent to former teachers or to friends so that there maybe a higher than usual level of agreement. Just knowing that the protocols came from Hospital X may provide important cues about the nature of the patients.

Other studies have used a matching technique, that is specifically, the matching of the Rorschach Test protocols with case histories, so as to assess the validity of the Rorschach test results interpretations. However, there are also problems with these studies. Correct matching may be a function of one or two strikingly deviant variables. Consequently, what has really been validated? There have even been instances in which the person who had administered the Rorschach Test was subsequently asked to match it with the correct case history. Thus, a correct match may have been determined by the recall of patient characteristics observed during the testing.

Despite the questions raised about the validity of the Rorschach Test, several surveys have placed the Rorschach Test in a favourable light (e.g., Atkinson, 1986; Parker, 1983; Parker et al., 1988). For example, Parker et al. (1988), in a broad survey of Rorschach studies, found the average validity coefficient across a variety of Rorschach scales to be .41. Also, both inter judge reliability and test retest reliability were in the mid 80s. Still, many remain critical of the quality of the individual studies that have been cited as supporting the validity of the Rorschach Test scores (e.g., Wood et al., 1996; Wood et al., 2003). Perhaps most important, a recent reanalysis of the studies included in Parker et al.'s (1988) meta analysis arrived at a different conclusion. Garb et al. (1998), using data from the same studies reviewed by Parker et al., reported significantly lower validity estimates for the Rorschach Test scores (validity coefficient of .29 vs. previous estimate of .41). Further, the revised, corrected estimate of the Rorschach Test validity was significantly lower than that of the MMPI (.48). These findings, in addition to findings that fail to support the incremental validity of the Rorschach Test scores (Archer & Krishnamurthy, 1997; Garb, 1984, 1998), led the authors to "recommend that less emphasis be placed on training in the use of the Rorschach" (p. 404). It remains to be seen whether clinical psychology programs will heed this call.

The debate over the utility of the Rorschach Test in clinical assessment continues (Meyer, 1999, 2001; Wood et al. 2003). Advocates (Stricker & Gold, 1999; Viglione, 1999; Viglione & Hilsenroth, 2001; Weiner et al. 2002) argue that the Rorschach Test is useful when the focus is on the unconscious functioning and problem solving styles of individuals. However, critics remain skeptical of the clinical utility of Rorschach scores (Hunsley & Bailey, 1999, 2001) or their incremental validity (Dawes, 1999; Garb, 2003).

2.7 RORSCHACH INKBLOT “METHOD”

Weiner (1991) has argued that the Rorschach Test is best conceptualised as a *method* of data collection, not a test.

The Rorschach is not a test because it does not test anything. A test is intended to measure whether something is present or not and in what quantity. But with the Rorschach Test, which has traditionally been classified as a test of personality, we do not measure whether people have a personality or how much personality they have. (p. 499).

The several implications are as follow :

First, Weiner argues that data generated from the Rorschach Test method can be interpreted from a variety of theoretical positions. These data suggest how the respondent typically solves problems or makes decisions (cognitive structuring processes) as well as the meanings that are assigned to these perceptions (associational processes). Weiner calls this an “integrationist” view of the Rorschach Test because the method provides data relevant to both the structure and dynamics of personality. According to Weiner, a second, practical implication is that viewing the Rorschach as a method allows one to fully use all aspects of the data that are generated, resulting in a more thorough diagnostic evaluation.

The influence and utility of this re conceptualisation remain to be seen. In any case, empirical data supporting the utility and incremental validity of data generated by the Rorschach Test “method” are still necessary before its routine use in clinical settings can be advocated.

2.8 CURRENT AND FUTURE STATUS

The status of assessment instruments is typically reflected in the frequency with which they are used and studied. As reviewed by Camara, Nathan, and Puente (2000); Viglione and Hilsenroth (2001); and Weiner (1999b), numerous surveys over the past 40 years have consistently shown substantial endorsement of Rorschach testing as a valuable skill to teach, learn, and practice. These surveys indicate that over 80% of clinical psychologists engaged in providing assessment services use the Rorschach inkblot Test method (RIM) in their work and believe that clinical students should be competent in Rorschach assessment, that over 80% of graduate programs teach the RIM, and that students find this training helpful in improving their understanding of their patients and developing other clinical skills. In recent comprehensive surveys of pre doctoral internship sites, training directors commonly assigned considerable value to the Rorschach testing, indicated that it was one of the three measures most frequently used in their test batteries (along with the Wechsler Adult Intelligence Scale [WAIS] / Wechsler Intelligence Scale for Children [WISC] and Minnesota Multi phasic Personality

Inventory-2 [MMPI-2]/ MMPI Adolescent [MMPI-A], and expressed a desire for their incoming interns to have had a Rorschach Test course or arrive with a good working knowledge of the instrument (Clemence & Handler, 2001; Stedman, Hatch, & Schoenfeld, 2000).

Survey findings indicate that the Rorschach Test assessment has gained an established place in forensic as well as clinical practice. Data collected from forensic psychologists by Ackerman and Ackerman (1997), Boccaccini and Brodsky (1999), and Borum and Grisso (1995) showed 30% using the RIM in evaluations of competency to stand trial, 32% in evaluations of criminal responsibility, 41% in evaluations of personal injury, and 48% in evaluations of adults involved in custody disputes.

As for study of the instrument, the scientific status of the RIM has been attested over many years by a steady and substantial volume of published research concerning its nature and utility. Buros (1974) *Tests in Print II* identified 4,580 Rorschach references through 1971, with an average yearly rate of 92 publications. In the 1990s, Butcher and Rouse (1996) found an almost identical trend continuing from 1974 to 1994. An average of 96 Rorschach Test research articles appeared annually during this 20 year period in journals published in the United States, and the RIM was second only to the MMPI among personality assessment measures in the volume of research it generated. There is also a large international community of Rorschach scholars and practitioners whose research published in languages other than English has for many years made important contributions to the literature (see Weiner, 1999a). The international presence of the RIM is reflected in a survey of test use in Spain, Portugal, and Latin American countries by Muniz, Prieto, and Almeida (1998), in which the Rorschach Test emerged as the third most widely used psychological assessment instrument, following the Wechsler intelligence scales and versions of the MMPI. Finally of note in this regard, an international society for the Rorschach Test and projective methods has been in existence since 1947, and triennial congresses sponsored by this society typically attract participants from over 30 countries.

Despite the information presented in this unit concerning the psychometric soundness and numerous applications of the RIM and the frequency with which it is used and studied, not all psychologists look favorably on Rorschach assessment. Particularly in academic circles, there are some who remain unconvinced of its reliability and validity and argue against its being taught or studied in university programs (see Lilienfeld, Wood, & Garb, 2000). Let it be said that the RIM, like virtually all instruments used in psychological assessments, is neither perfectly understood nor the ultimate answer to all questions. Like all widely used tests in psychology, it is more valid for some purposes than others and awaits further research to clarify its characteristics and corollaries. As Meyer and Archer (2001) conclude in the most recent summary of the empirical evidence available at the time of this writing, "Given this evidence, and the limitations inherent in any assessment procedure, there is no reason to single out the Rorschach Test for praise or criticism" (p. 499). Regrettably, however, intractable Rorschach Test critics often appear immune to persuasion by the continuing accumulation of research data confirming the scientific merit of the instrument, and they often seem unacquainted with the practical utility of Rorschach Test findings, which would not exist if it were an unreliable or invalid instrument. Reviewing the Rorschach Test in the edition of the *Mental Measurements Year book*, Hess, Zachar, and Kramer (2001) concur that "the Rorschach, employed with the Comprehensive System, is a better personality test than its opponents are willing to acknowledge" (p. 1037).

The future of the Rorschach Test assessment holds some risk that its critics will curtail its teaching in those academic settings where their views are influential. Any such silencing of the Rorschach Test instruction would be regrettable. As would be true for any widely used and apparently helpful method that is not yet perfectly understood or completely validated, who will be capable of pursuing an appropriate research agenda if no one is being taught to use it appropriately? Among knowledgeable assessment psychologists, however, there is no indication of flagging interest in using the RIM clinically or doing research with it. The literature is providing a constant flow of fresh ideas and improved guidelines for the practical application of Rorschach findings, and accumulating research results are steadily strengthening the psychometric foundations of the instrument and expanding comprehension of how it works. Societies around the world concerned with Rorschach assessment are thriving, and seminars and workshops on the Rorschach Test method continue to attract a large audience. The current status of the Rorschach Test assessment appears healthy, vigorous, and poised for continued enhancement in the twenty first century.

Self Assessment Questions

- 1) Discuss critically the reliability and validity of the Rorschach Test.
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- 2) Describe the Importance and characteristic features of the Rorschach inkblot method.
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- 3) Discuss the current and future prospects of the Rorschach test.
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2.9 LET US SUM UP

Among projective techniques, we focused most of our discussion on the Rorschach Test. In many respects, clinical psychologists' allegiance to this test divides the field along the lines of believers versus nonbelievers. Academic clinical psychologists tend to be highly critical of the Rorschach and the acrimonious debate over its

legitimacy and merits rages on. Projective techniques, as methods of assessing and describing personality, are alive and well, and do not seem to have been relegated to second place in favour of the so called objective assessment methods. They continue to be preferred and used by a large number of psychologists in both the former and the new fields of psychological assessment.

2.10 UNIT END QUESTIONS

- 1) The reliability of qualitative data is often assessed by:
 - a) test-retest
 - b) accuracy of protocol matches
 - c) interrater reliability
 - d) internal consistency methods
- 2) The purpose of the inquiry phase on the Rorschach is to obtain information
 - a) about the client and his/her background
 - b) so the responses can be scored
 - c) that determines which inkblots will be administered
 - d) as to how normal or psychotic the client is
- 3) Form, colour, and shading aspects of the Rorschach are known as:
 - a) testing the limits
 - b) content variables
 - c) determinants
 - d) location
- 4) The fact that there are only 10 inkblots in the Rorschach means that
 - a) validity cannot be established
 - b) reliability is inherently limited
 - c) only alternate form reliability can be computed
 - d) reliability cannot be determined
- 5) Parker's (1983) meta-analysis of Rorschach studies indicated that reliabilities of about can be expected in well-designed studies.
 - a) .50
 - b) .60
 - c) .70
 - d) .80
- 6) Percentage of agreement is a poor measure of reliability because:
 - a) it does not take into account chance agreement

- b) it requires too many experts to calculate
 - c) it is confounded by validity results
 - d) experts typically do not agree
- 7) The reliability of qualitative data is often assessed by:
- a) test-retest
 - b) accuracy of protocol matches
 - c) interrater reliability
 - d) internal consistency methods
- 8) The purpose of the inquiry phase on the Rorschach is to obtain information
- a) about the client and his/her background
 - b) so the responses can be scored
 - c) that determines which inkblots will be administered
 - d) as to how normal or psychotic the client is
- 9) Form, color, and shading aspects of the Rorschach are known as:
- a) testing the limits
 - b) content variables
 - c) determinants
 - d) location
- 10) The fact that there are only 10 inkblots in the Rorschach means that
- a) validity cannot be established
 - b) reliability is inherently limited
 - c) only alternate form reliability can be computed
 - d) reliability cannot be determined
- 11) Parker's (1983) meta-analysis of Rorschach studies indicated that reliabilities of about can be expected in well-designed studies.
- a) .50
 - b) .60
 - c) .70
 - d) .80
- 12) Percentage of agreement is a poor measure of reliability because:
- a) it does not take into account chance agreement
 - b) it requires too many experts to calculate
 - c) it is confounded by validity results
 - d) experts typically do not agree

- 13) What are the differences between objective and projective psychological testing?
- 14) Describe in brief the Rorschach?
- 15) Are projective tests valid?
- 16) If someone asked, "Is the Rorschach valid" how would you answer?
- 17) Discuss the current and future status of Rorschach?

2.11 SUGGESTED READINGS

Groth Marnat, Gary. (2003). *Handbook of Psychological Assessment* (4thed.). New Jersey: John Wiley & Sons, Inc.

Murphy, K.R., Davidshofer, C.O. (2005). *Psychological Testing: Principles and Applications* (6thed.). New Jersey: Pearson Education International.

UNIT 3 THE THEMATIC APPERCEPTION TEST AND CHILDREN'S APPERCEPTION TEST

Structure

- 3.0 Introduction
- 3.1 Objectives
- 3.2 The Thematic Apperception Test
 - 3.2.1 Description
 - 3.2.2 Administration
 - 3.2.3 Pull of TAT Cards
 - 3.2.4 Scoring
 - 3.2.5 What Does the TAT Measure?
 - 3.2.6 Reliability
 - 3.2.7 Validity
- 3.3 Apperception of TAT
- 3.4 Alternative Apperception Procedures
 - 3.4.1 Tell Me a Story Test
 - 3.4.2 The Children's Apperception Test (The CAT)
 - 3.4.3 Description of CAT
 - 3.4.4 Scoring of CAT
 - 3.4.5 Precautions
- 3.5 Let Us Sum Up
- 3.6 Unit End Questions
- 3.7 Suggested Readings

3.0 INTRODUCTION

When we read a story, we not only learn about the fictitious characters but also about the author. The personality of a Sidney Sheldon is distinctly different from that of a Charles Dickens, and one need not have a doctorate in literature to perceive the major differences between these two authors from their writings. It was this type of observation that led Murray and Morgan to develop the TAT, where the respondent is asked to make up stories in response to a set of pictures. Like the Rorschach, the TAT is used extensively and also has received a great deal of criticism. This unit will provide a comprehensive discussion of TAT in terms of its description, administration, scoring and psychometric properties. The last part of the unit will give a brief description and discussion of CAT.

3.1 OBJECTIVES

After completing this unit, you will be able to :

- Discuss the main differences between Rorschach and TAT;

- Describe the TAT, its administration, scoring and psychometric properties;
- Explain the different variations of TAT; and
- Elucidate the CAT test, scoring and interpretation

3.2 THE THEMATIC APPERCEPTION TEST

A thematic apperception test (TAT) is a projective psychological analysis used to investigate a person's unconscious self. More specifically, a thematic apperception test can uncover a person's true personality, their capacity for emotional control, and their attitudes towards aspects they encounter in everyday life (wealth, power, gender roles, racial and religious attitudes, intimacy, etc.). In this way, a thematic apperception test is similar to a Rorschach (ink blot) test. Both are projective tests that assess the types of information that a subject projects onto a set of ambiguous images.

Procedurally, a thematic apperception test involves showing the subject several pictures (which are engaging but broad and open to interpretation) and having the subject tell a story for each picture. The subject is encouraged to use as much detail as possible. For example: What is happening in the picture? What events occurred prior to what is happening in the picture? What will happen afterwards? Why are the characters acting and feeling the way they are?

The results of a thematic apperception test are difficult to generalise. The results are often subjective and do not use any formal type of scoring system. However, a close analysis of the stories told by the subject normally gives the tester a decent idea of the traits mentioned above (personality, emotional control, and attitudes towards aspects of everyday life).

Companies sometimes use thematic apperception tests to screen potential employees. These tests can determine (to a certain extent) whether the potential employee is likely to succeed at a certain position. For example: Can they handle stressful situations? How will they react to emotional conflicts? Will they fit in well with the general atmosphere and attitude of the company?

The Thematic Apperception Test (TAT) was introduced in 1935 by Christina Morgan and Henry Murray of Harvard University. It is comparable to the Rorschach Test in many ways, including its importance and psychometric problems. As with the Rorschach Test, use of the TAT grew rapidly after its introduction. With the exception of the Rorschach Test, the TAT is used more than any other projective test (Wood et al., 2003). Though its psychometric adequacy was (and still is) vigorously debated, unlike the Rorschach, the TAT has been relatively well received by the scientific community.

Also, the TAT is based on Murray's (1938) theory of needs, whereas the Rorschach is basically a theoretical. The TAT and the Rorschach differ in other respects as well. The TAT authors were conservative in their evaluation of the TAT and scientific in their outlook. The TAT was not oversold as was the Rorschach, and no extravagant claims were made. Unlike the Rorschach, the TAT was not billed as a diagnostic instrument, that is, a test of disordered emotional states. Instead, the TAT was presented as an instrument for evaluating human personality characteristics. This test also differs from the Rorschach Test because the TAT's non clinical uses are just as important as its clinical ones. Indeed, the TAT is one

of the most important techniques used in personality research (Abrams, 1999; Bellak, 1999; Cramer & Blatt, 1990; McClelland, 1999).

As stated, the TAT is based on Murray's (1938) theory, which distinguishes 28 human needs, including the needs for sex, affiliation, and dominance. Many of these needs have been extensively researched through use of the TAT (McClelland, 1999). The theoretical need for achievement that is "the desire or tendency to do things as rapidly and/or as well as possible" (Murray, 1938, p. 164)—alone has generated a very large number of studies involving the TAT.

The TAT measure of the achievement need has been related to factors such as parental perceptions, parental expectations, and parental attitudes toward offspring. Need achievement is also related to the standards that you as a student set for yourself (for example, academic standards). The higher your need for achievement, the more likely you are to study and ultimately achieve a high economic and social position in society. Studies such as those on the achievement motive have provided construct related evidence for validity and have increased the scientific respectability of the TAT.

3.2.1 Description

The TAT is more structured and less ambiguous than the Rorschach Test. TAT stimuli consist of pictures that depict a variety of scenes. There are 30 pictures and one blank card. Specific cards are designed for male subjects, others for female. Some of the cards are appropriate for older people, others for young ones. A few of the cards are appropriate for all subjects, such as Card 1.

An Example of a TAT card



(Source: net)

This card shows a boy, neatly dressed and groomed, sitting at a table on which lies a violin. In his description of Card 1, Murray stated that the boy is "contemplating" the violin. According to experts such as Bellak (1986), Card 1 of the TAT tends to reveal a person's relationship toward parental figures.

Other TAT cards tend to elicit other kinds of information. Card 4 is a picture of a woman "clutching the shoulders of a man whose face and body are averted as if he were trying to pull away from her" (Bellak, 1975, p. 51). This card elicits

information concerning male female relationships. Bellak (1986, 1996) and others provide a description of the TAT cards along with the information that each card tends to elicit. This knowledge is essential in TAT interpretation. Card 12F, sometimes elicits conflicting emotions about the self. Other feelings may also be elicited.

3.2.2 Administration

Although theoretically the TAT could be used with children, it is typically used with adolescents and adults. The original manual (H. A. Murray, 1943) does have standardized instructions, but typically examiners use their own versions. What is necessary is that the instructions include the points that:

- the client is to make up an imaginative or dramatic story;
- the story is to include what is happening, what led to what is happening, and what will happen;
- Finally, it should include what the story characters are feeling and thinking.

As part of the administration, the examiner unobtrusively records the response latency of each card, i.e., how long it takes the subject to begin a story. The examiner writes down the story as accurately as possible, noting any other responses (such as nervous laughter, facial expressions, etc.). Some examiners use a tape recorder, but such a device may significantly alter the test situation (R. M. Ryan, 1987). The examiner also records the *reaction time* that is the time interval between the initial presentation of a card and the subject's first response. By recording reaction time, the examiner can determine whether the subject has difficulty with a particular card. Because each card is designed to elicit its own themes, needs, and conflicts, an abnormally long reaction time may indicate a specific problem. If, for example, the reaction time substantially increases for all cards involving heterosexual relationships, then the examiner may hypothesize that the subject is experiencing difficulty in this area.

Often, after all the stories have been elicited, there is an inquiry phase, where the examiner may attempt to obtain additional information about the stories the client has given. A variety of techniques are used by different examiners, including asking the client to identify the least preferred and most preferred cards.

3.2.3 Pull of TAT Cards

TAT cards elicit "typical" responses from many subjects, somewhat like the popular responses on the Rorschach Test. This is called the "pull" of the card, and some have argued that this pull is the most important determinant of a TAT response (Murstein, 1963). Many of the TAT cards are from wood cuts and other art media, with lots of shadings and dark, sometimes indistinguishable details. Because of this stimulus pull, many of the cards elicit stories that are gloomy or melancholic. There is some evidence to suggest that the actual TAT card may be more important than the respondent's "projections" in determining the actual emotional tone of the story (Eron, Terry, & Callahan, 1950).

3.2.4 Scoring

H. A. Murray (1938) developed the TAT in the context of a personality theory that saw behaviour as the result of psychobiological and environmental aspects. Thus not only are there *needs* that a person has (both biological needs, such as

the need for food, and psychological, such as the need to achieve or the need for control), but there are also forces in the environment, called *press*, that can affect the individual. Presumably, the stories given by the individual reflect the combination of such needs and presses, both in an objective sense and as perceived by the person.

There were a number of attempts to develop comprehensive scoring systems for the TAT. A number of manuals are available that can be used (Henry, 1956; Stein, 1981), although none have become the standard way, and ultimately the scoring reflects the examiner's clinical skills and theoretical perspective.

Almost all methods of TAT interpretation take into account the *hero*, *needs*, *press*, *themes*, and *outcomes*. The *hero* is the character in each picture with whom the subject seems to identify. In most cases, the story revolves around one easily recognisable character. If more than one character seems to be important, then the character most like the storyteller is selected as the hero. Of particular importance are the motives and *needs* of the hero. Most systems, including Murray's original, consider the intensity, duration, and frequency of each need to indicate the importance and relevance of that need. In TAT interpretation, *press* refers to the environmental forces that interfere with or facilitate satisfaction of the various needs. Again, factors such as frequency, intensity, and duration are used to judge the relative importance of these factors. The frequency of various *themes* (for example, depression) and *outcomes* (for example, failures) also indicates their importance.

Analysis of TAT protocols is often impressionistic that is a subjective, intuitive approach where the TAT protocol is perused for such things as repetitive themes, conflicts, slips of the tongue, degree of emotional control, sequence of stories, etc. As with the Rorschach, the interpretation is not to be done blindly but in accord with other information derived from interviews with the client, other test results, etc.

In effect then, the utility of the TAT is, in large part, a function of both the specific scoring procedure used and the talent and sensitivity of the individual clinician. Many specific scoring guide lines have also been developed that focus on the measurement of a specific dimension, such as gender identity (May, 1966) or achievement motivation (McClelland, Atkinson, Clark, et al., 1953). A recent example is a scoring system designed to measure how people are likely to resolve personal problems; for each card a total score as well as four subscale scores are obtained, and these are aggregated across cards (Ronan, Colavito, & Hammontree, 1993).

3.2.5 What does the TAT Measure?

First and foremost TAT stories are samples of the subject's verbal behaviour. Thus, they can be used to assess the person's intellectual competence, verbal fluency, capacity to think abstractly, and other cognitive aspects. Second, the TAT represents an ambiguous situation presented by an "authority" figure, to which the subject must somehow respond. Thus some insight can be gained about the person's coping resources, interpersonal skills, and so on. Finally, the TAT responses can be assumed to reflect the individual's psychological functioning, and the needs, conflicts, feelings, etc., expressed in the stories are presumed to reflect the client's perception of the world and inner psychodynamic functioning. TAT stories are said to yield information about the person's:

- 1) thought organisation,
- 2) emotional responsiveness,
- 3) psychological needs,
- 4) view of the world,
- 5) interpersonal relationships,
- 6) self-concept, and
- 7) coping patterns.

Holt pointed out that the responses to the TAT not only are potentially reflective of a person's unconscious functioning, in a manner parallel to dreams, but there are a number of "determinants" that impact upon the responses obtained. For example, the situational context is very important. Whether a subject is being evaluated as part of court-mandated proceedings or whether the person is an introductory psychology volunteer can make a substantial difference. The "directing set" is also important, i.e., the preconceptions that the person has of what the test, tester, and testing situations are like.

3.2.6 Reliability

The determination of the reliability (and validity) of the TAT is a rather complex matter because we must ask which scoring system is being used, which variables are scored, and perhaps even what aspects of specific examinees and examiners are involved.

Eron (1955) pointed out that the TAT was a research tool, one of many techniques used to study the fantasy of normal individuals, but that it was quickly adopted for use in the clinic without any serious test of the reliability and validity of the many methods of analysis that were proposed. He pointed out that there are as many ways of analysing TAT stories as there are practitioners, and that few of these methods have been demonstrated to be reliable.

Some would argue that the concept of reliability is meaningless when applied to projective techniques. Even if we don't accept that argument, it is clear that the standard methods of determining reliability are not particularly applicable to the TAT. Each of the TAT cards is unique, so neither split-half nor parallel-form reliability is appropriate. Test-retest reliability is also limited because on the one hand the test should be sensitive to changes over time, and on the other, the subject may focus on different aspects of the stimulus from one time to another.

The determination of reliability also assumes that extraneous sources of variation are held in check, i.e., the test is standardized. This is clearly not the case with the TAT, where instructions, sequence of cards, scoring procedure, etc., can vary.

3.2.7 Validity

Validity is also a very complex issue, with studies that support the validity of the TAT and studies that do not. Varble (1971) reviewed this issue and indicated that:

- 1) the TAT is not well suited or useful for differential diagnosis;
- 2) the TAT can be useful in the identification of personality variables, although there are studies that support this conclusion and studies that do not;

- 3) different reviewers come to different conclusions ranging from “the validity of the TAT is practically nil” to “there is impressive evidence for its validity.”

Holt (1951) pointed out that the TAT is not a test in the same sense that an intelligence scale is, but that the TAT really reflects a segment of human behaviour that can be analysed in many ways. One might as well ask what is the reliability and validity of everyday behaviour. It is interesting to note that Bellak's (1986) book on the TAT, which is quite comprehensive and often used as a training manual, does not list either reliability or validity in its index. But the TAT continues to be of interest to both practitioners and researchers.

Self Assessment Questions

- 1) What is Thematic Apperception Test?

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- 2) Give a detailed description of the TAT.

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- 3) What is meant by Pull of TAT cards?

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- 4) What does the TAT measure?

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- 5) Describe the reliability and validity of TAT.

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3.3 APPLICATION OF TAT

The TAT is often administered to individuals as part of a battery, or group, of tests intended to evaluate personality. It is considered to be effective in eliciting information about a person's view of the world and his or her attitudes toward the self and others. As people taking the TAT proceed through the various story cards and tell stories about the pictures, they reveal their expectations of relationships with peers, parents or other authority figures, subordinates, and possible romantic partners.

In addition to assessing the content of the stories that the subject is telling, the examiner evaluates the subject's manner, vocal tone, posture, hesitations, and other signs of an emotional response to a particular story picture. For example, a person who is made anxious by a certain picture may make comments about the artistic style of the picture, or remark that he or she does not like the picture; this is a way of avoiding telling a story about it.

The TAT is often used in individual assessments of candidates for employment in fields requiring a high degree of skill in dealing with other people and/or ability to cope with high levels of psychological stress as for example, law enforcement, military leadership positions, religious ministry, education, diplomatic service, etc.

Although the TAT should not be used in the differential diagnosis of mental disorders, it is often administered to individuals who have already received a diagnosis in order to match them with the type of psychological treatment that is best suited to their personalities.

Lastly, the TAT is sometimes used for forensic purposes in evaluating the motivations and general attitudes of persons accused of violent crimes. For example, the TAT was recently administered to a 24 year old man in prison for a series of sexual murders. The results indicated that his attitudes toward other people are not only outside normal limits but are similar to those of other persons found guilty of the same type of crime.

The TAT can be given repeatedly to an individual as a way of measuring progress in psychotherapy or, in some cases, to help the therapist understand why the treatment seems to be stalled or blocked.

In addition to its application in individual assessments, the TAT is frequently used for research into specific aspects of human personality, most often needs for achievement, fears of failure, hostility and aggression, and interpersonal object relations. "Object relations" is a phrase used in psychiatry and psychology to refer to the ways people internalise their relationships with others and the emotional tone of their relationships.

Research into object relations using the TAT investigates a variety of different topics, including

- i) the extent to which people are emotionally involved in relationships with others.
- ii) their ability to understand the complexities of human relationships.
- iii) their ability to distinguish between their viewpoint on a situation and the perspectives of others involved.

- iv) their ability to control aggressive impulses.
- v) Self esteem issues; and issues of personal identity.

For example, one recent study compared responses to the TAT from a group of psychiatric inpatients diagnosed with dissociative disorders with responses from a group of non dissociative inpatients, in order to investigate some of the controversies about dissociative identity disorder (formerly called multiple personality disorder).

3.4 ALTERNATIVE APPERCEPTION PROCEDURES

An alternative thematic apperception test (Ritzler, Sharkey, & Chudy, 1980; Sharkey & Ritzler, 1985) has been constructed with pictures from the *Family of Man* photo-essay collection (Museum of Modern Art, 1955). According to these authors, the relatively new procedure can be scored quantitatively. It provides a balance of positive and negative stories and a variety of action and energy levels for the main character. In comparison, the TAT elicits predominantly negative and low-energy stories. Preliminary results with this new procedure, known as the Southern Mississippi TAT (or SM-TAT), have been encouraging. These results indicate that the SM-TAT preserves many of the advantages of the TAT while providing a more rigorous and modern methodology. Naturally, more research is needed, but this attempt to modernize the TAT is to be applauded.

The versatility and usefulness of the TAT approach are illustrated not only by attempts such as those of Ritzler et al. (1980) to update the test but also by the availability of special forms of the TAT for children and others for the elderly. The Children's Apperception Test (CAT) was created to meet the special needs of children ages 3 through 10 (Bellak, 1975). The CAT stimuli contain animal rather than human figures as in the TAT. A special children's apperception test has been developed specifically for Latino and Latina children (Malgady, Constantino, & Rogler, 1984).

3.4.1 Tell Me A Story Test

This is a multicultural thematic apperception test designed to use with minority and non minority children and adolescents with a set of stimulus cards and extensive normative data for each group. The stimulus cards are structured to elicit specific responses and are in colour to facilitate verbalization and projection of emotional states. It differs from the TAT in the following aspects:

- 1) It focuses on personality functions as manifested in internalised interpersonal relationships rather than on intra psychic dynamics.
- 2) It consists of 23 cards with chromatic pictures while the TAT has 19 achromatic pictures and one blank card.
- 3) Tell me a story test attempts to elicit meaningful stories indicating conflict resolution of bipolar personality functions while the TAT uses ambiguous stimuli to elicit meaningful stories.
- 4) The Tell me a story stimuli represents the polarities of negative and positive emotions cognitions and interpersonal functions, while the TAT is primarily weighted to represent negative emotions, depressive mood and hostility.

- 5) The Tell Me a Story test stimulus cards are culturally relevant, gender sensitive and have diminished ambiguity.

The Gerontological Apperception Test uses stimuli in which one or more elderly individuals are involved in a scene with a theme relevant to the concerns of the elderly, such as loneliness and family conflicts (Wolk & Wolk, 1971). The Senior Apperception Technique is an alternative to the Gerontological Apperception Test and is parallel in content (Bellak, 1975; Bellak & Bellak, 1973).

This test measures the experiences of the older persons. The scoring criteria was developed to reflect the interpersonal, health related and intrapsychic dimensions of the experience of later life. There are a total of 20 items. Stories based on the pictures were written down verbatim. The stories received a score of 0 for tolerance and 1 for lack of tolerance. The sample items for the elderly included the following:

- Tolerates loneliness/separateness
- Concern for affiliation with others
- Fear of losing one's place/status in the community
- Concern for heterosexuality-sexual
- Concern for heterosexuality-companionship/ sociability

3.4.2 The Children's Apperception Test (The CAT)

The Children's Apperception Test, often abbreviated as CAT, is an individually administered projective personality test appropriate for children aged three to 10 years.

The CAT is intended to measure the personality traits, attitudes, and psychodynamic processes evident in pre pubertal children. By presenting a series of pictures and asking a child to describe the situations and make up stories about the people or animals in the pictures, an examiner can elicit this information about the child.

The CAT was originally developed to assess psychosexual conflicts related to certain stages of a child's development. Examples of these conflicts include relationship issues, sibling rivalry, and aggression. Today, the CAT is more often used as an assessment technique in clinical evaluation. Clinical diagnoses can be based in part on the Children's Apperception Test and other projective techniques.

3.4.3 Description of CAT

The Children's Apperception Test was developed by Leopold Bellak and Sonya Sorel Bellak. It was an offshoot of the Thematic Apperception Test (TAT), which was based on Henry Murray's need-based theory of personality. Bellak and Bellak developed the CAT because they saw a need for an apperception test specifically designed for children. The most recent revision of the CAT was published in 1996.

The original CAT featured ten pictures of animals in such human social contexts as playing games or sleeping in a bed. Today, this version is known as the CAT or the CAT-A (for animal). Animals were chosen for the pictures because it was believed that young children relate better to animals than humans. Each picture is presented by a test administrator in the form of a card. The test is always

administered to an individual child; it should never be given in group form. The test is not timed but normally takes 20–30 minutes. It should be given in a quiet room in which the administrator and the child will not be disturbed by other people or activities.

The second version of the CAT, the CAT-H includes ten pictures of human beings in the same situations as the animals in the original CAT. The CAT-H was designed for the same age group as the CAT-A but appeals especially to children aged seven to 10, who may prefer pictures of humans to pictures of animals.

The pictures on the CAT were chosen to draw out children's fantasies and encourage storytelling. Descriptions of the ten pictures are as follows: baby chicks seated around a table with an adult chicken appearing in the background; a large bear and a baby bear playing tug-of-war; a lion sitting on a throne being watched by a mouse through a peephole; a mother kangaroo with a joey (baby kangaroo) in her pouch and an older joey beside her; two baby bears sleeping on a small bed in front of a larger bed containing two bulges; a cave in which two large bears are lying down next to a baby bear; a ferocious tiger leaping toward a monkey who is trying to climb a tree; two adult monkeys sitting on a sofa while another adult monkey talks to a baby monkey; a rabbit sitting on a child's bed viewed through a doorway; and a puppy being spanked by an adult dog in front of a bathroom. The cards in the human version substitute human adults and children for the animals but the situations are the same. Gender identity, however, is more ambiguous in the animal pictures than in the human ones. The ambiguity of gender can allow for children to relate to all the child animals in the pictures rather than just the human beings of their own sex.

The pictures are meant to encourage the children to tell stories related to competition, illness, injuries, body image, family life, and school situations. The CAT test manual suggests that the administrator should consider the following variables when analysing a child's story about a particular card: the protagonist (main character) of the story; the primary needs of the protagonist; and the relationship of the main character to his or her personal environment. The pictures also draw out a child's anxieties, fears, and psychological defenses.

3.4.4 Scoring of CAT

Scoring of the Children's Apperception Test is not based on objective scales; it must be performed by a trained test administrator or scorer. The scorer's interpretation should take into account the following variables: the story's primary theme; the story's hero or heroine; the needs or drives of the hero or heroine; the environment in which the story takes place; the child's perception of the figures in the picture; the main conflicts in the story; the anxieties and defenses expressed in the story; the function of the child's superego; and the integration of the child's ego.

Consider, for example, the card in which a ferocious tiger leaps toward a monkey who is trying to climb a tree. A child may talk about his or her fears of aggression or punishment. The monkey may be described as a hero escaping punishment from the evil tiger. This story line may represent the child's perceived need to escape punishment from an angry parent or a bully. Conversely, a child may perceive the picture in a relatively harmless way, perhaps seeing the monkey and tiger playing an innocent game.

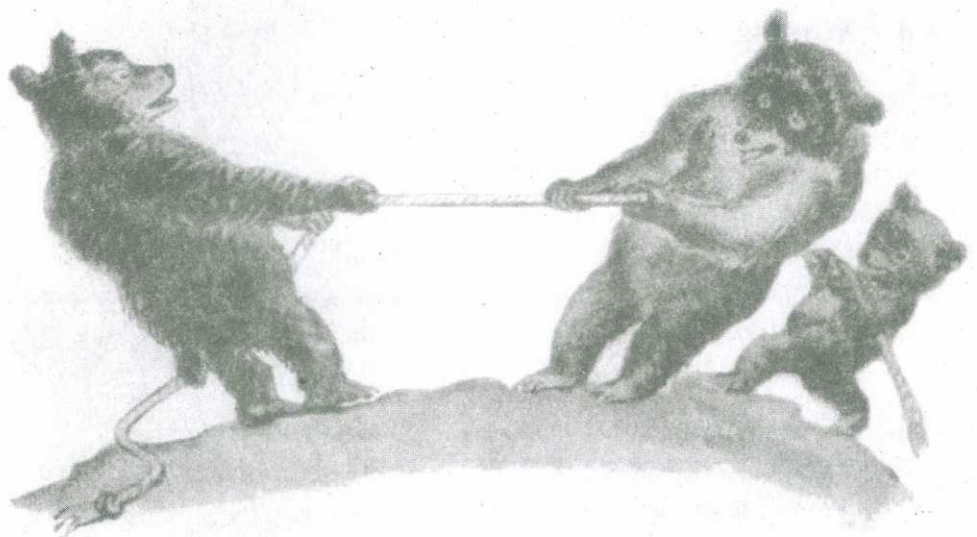
A projective test like the CAT allows for a wide variety of acceptable responses. There is no “incorrect” response to the pictures. The scorer is responsible for interpreting the child’s responses in a coherent way in order to make the test useful as a clinical assessment technique. It is recommended practice for the administrator to obtain the child’s personal and medical history before giving the CAT, in order to provide a context for what might otherwise appear to be abnormal responses. For example, it would be normal under the circumstances for a child whose pet has just died to tell stories that include themes of grief or loss even though most children would not respond to the cards in that way.

A person scoring the CAT has considerable flexibility in interpretation. He or she can use the analysis of a child’s responses to support a psychological diagnosis, provide a basis for a clinical evaluation, or gain insight into the child’s internal psychological structure.

3.4.5 Precautions

A psychologist or other professional person who is administering the CAT must be trained in its usage and interpretation, and should be familiar with the psychological theories underlying the pictures. Because of the subjective nature of interpreting and analysing CAT results, caution should be used in drawing conclusions from the test results. Most clinical psychologists recommend using the CAT in conjunction with other psychological tests designed for children.

The CAT is frequently criticized for its lack of objective scoring, its reliance on the scorer’s own scoring method and bias, and the lack of accepted evidence for its reliability (consistency of results) and validity (effectiveness in measuring what it was designed to measure). For example, no clear evidence exists that the test measure’s needs, conflicts, or other processes related to human motivations in a valid and reliable way.



An Example of CAT Card
(Source: Net)

Self Assessment Questions

- 1) Describe the various applications of the TAT test.
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.....
- 2) What are the various alternative procedures to TAT do we have? Describe.
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.....
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.....
- 3) Describe the Tell me a Story Test.
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.....
- 4) What is the significance of children's Apperception Test?
.....
.....
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.....
- 5) How is the CAT scored and interpreted?
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.....
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.....
- 6) What precautions need to be followed in regard to CAT?
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3.5 LET US SUM UP

The TAT, enjoys wide research as well as clinical use. The TAT stimuli consist of 30 pictures, of various scenes, and one blank card. Specific cards are suited for adults, children, men, and women. In administering the TAT, the examiner asks the subject to make up a story; he or she looks for the events that led up to the scene, what the characters are thinking and feeling, and the outcome. Almost all methods of TAT interpretation take into account the *hero*, *needs*, *press*, *themes*, and *outcomes*. Like the Rorschach, the TAT has strong supporters but has also been attacked on a variety of scientific grounds. Though not psychometrically sound by traditional standards, the TAT is in widespread use. The TAT is based on Murray's (1938) theory of needs.

Many variants of the TAT approaches have been developed, including sets of cards that depict animal characters for use with children e.g., the Children's Apperception Test, sets for use with the elderly the Gerontological Apperception Test, with families and with specific ethnic or cultural groups.

3.6 UNIT END QUESTIONS

- 1) The TAT consists of
 - a) two sets of 45 inkblots
 - b) a series of stories chosen for their emotional impact
 - c) a series of pictures depicting the adventures of Blacky
 - d) a set of 31 pictures, most of which are ambiguous
- 2) In administering the TAT most clinicians
 - a) have a favorite subset of cards that they administer to every client
 - b) administer the entire set of pictures
 - c) select a subset of 6 to 10 cards related to the specific client
 - d) ask the client which pictures are best and least liked
- 3) The "pull" of the card refers to:
 - a) common themes elicited by a particular card
 - b) whether a subject touches a card and thus shows compliance
 - c) the influence of a picture on subsequent stories
 - d) how often that card is selected for administration
- 4) The theory behind the TAT focuses on:
 - a) achievement and failure
 - b) castration anxiety
 - c) needs and presses
 - d) self esteem and competence

- 5) In regards to the hero of TAT stories, it is assumed that
 - a) the hero represents what Freud called the Id
 - b) the client identifies psychologically with the hero
 - c) the hero is always a masculine figure
 - d) in each story there are several heroes
- 6) In a clinical setting, the analysis of the TAT
 - a) follows a strict scoring procedure based on 36 needs
 - b) assesses such aspects as determinants and form quality
 - c) requires a content analysis of both needs and presses
 - d) usually reflects an impressionistic, holistic approach
- 7) In regards to the reliability of the TAT we can conclude that:
 - a) standard methods of determining reliability are not fully applicable
 - b) test-retest is unusually high for a projective technique
 - c) both split-half and parallel form reliabilities are adequate
 - d) the TAT is a research tool not a psychological test
- 8) The CAT stimuli contain _____ figures
 - a) Human
 - b) Cartoon
 - c) Animal
 - d) Toys
- 9) The Children's Apperception Test is administered for children aged
 - a) 3-10 years
 - b) 5-15 years
 - c) 5-20 years
 - d) 3-15 years
- 10) The Gerontological Apperception Test has themes relevant to the concerns of the elderly, such as
 - a) relationships
 - b) loneliness and family conflicts
 - c) career
 - d) education
- 11) Write about the main differences between the Rorschach and TAT?

- 12) Write about TAT and also discuss its psychometric properties?
- 13) What are the different variations of TAT? Briefly discuss CAT?

3.7 SUGGESTED READINGS

Kaplan, R. M., & Saccuzzo, D. (2001). *Psychological Testing: Principles, Applications, and Issues* (5th Ed.). Pacific Grove, CA: Wadsworth.

Trull, T.J. (2005). *Clinical Psychology* (7th Ed.). USA: Thomson Learning, Inc.

UNIT 4 PERSONALITY INVENTORIES

Structure

- 4.0 Introduction
- 4.1 Objectives
- 4.2 Personality Testing
 - 4.2.1 Personality and Psychological Functioning
 - 4.2.2 Is Personality Really Enduring
- 4.3 Measurement of Personality and Psychological Functioning
 - 4.3.1 Objective Testing
 - 4.3.2 The Minnesota Multiphasic Personality Inventory (MMPI, MMPI-2, MMPIA)
 - 4.3.3 The Minnesota Multiphasic Personality Inventory-Adolescents
 - 4.3.4 The Millon Clinical Multiaxial Inventories
 - 4.3.5 The Sixteen Personality Factors (16PF)
 - 4.3.6 The NEO-Personality Inventory Revised
- 4.4 Other Objective Tests
 - 4.4.1 The Edwards Personal Preference Schedule (EPPS)
 - 4.4.2 The California Psychological Inventory (CPI)
- 4.5 Let Us Sum Up
- 4.6 Unit End Questions
- 4.7 Suggested Readings

4.0 INTRODUCTION

An alternative way to collect information about individuals is to ask them to assess themselves. The personality inventory asks respondents a wide range of questions about their behaviour, beliefs, and feelings. In the typical personality inventory, individuals indicate whether each of a long list of statements applies to them. Clinicians then use the responses to draw conclusions about the person's personality and psychological functioning. In this unit we will consider some of the most widely used objective measures of personality such as MMPI, MCMI, 16 PF, EPPS, CPI and NEO-PI-R.

4.1 OBJECTIVES

After reading this unit, you will be able to:

- Define personality;
- Describe personality testing;
- Explain the relationship between personality and psychological functioning;
- Explain what personality testing is;
- Elucidate the concepts of measurement of personality and psychological functioning;

- Describe the most widely used objective tests of personality such as the MMPI; and
- Analyse the other objective tests.

4.2 PERSONALITY TESTING

Before taking up personality testing, let us see what is personality. Personality concerns the most important, most noticeable parts of an individual's psychological life. Personality concerns whether a person is happy or sad, energetic or apathetic, smart or dull. Over the years, many different definitions have been proposed for personality. Most of the definitions refer to a mental system — a collection of psychological parts including motives, emotions, and thoughts. The definitions vary a bit as to what those parts might be, but they come down to the idea that personality involves a pattern or global operation of mental systems. Here are some definitions:

“Personality is the entire mental organisation of a human being at any stage of his development. It embraces every phase of human character: intellect, temperament, skill, morality, and every attitude that has been built up in the course of one's life.” (Warren & Carmichael, 1930, p. 333)

“Personality is the essence of a human being.” (Hall & Lindzey, 1957, p. 9)”

An individual's pattern of psychological processes arising from motives, feelings, thoughts, and other major areas of psychological function. Personality is expressed through its influences on the body, in conscious mental life, and through the individual's social behavior.” (Mayer, 2005)

Personality testing in a sense accesses the heart and soul of an individual's psyche. Personality testing strives to observe and describes the structure and content of personality, which can be defined as the characteristic ways in which an individual thinks, feels, and behaves. Personality testing is particularly useful in clarifying diagnosis, problematic patterns and symptoms, intra psychic and interpersonal dynamics, and treatment implications.

4.2.1 Personality and Psychological Functioning

Each human being has a unique manner of interacting with the world. Some people tend to be shy and withdrawn, while others are generally outgoing and gregarious. Some tend to be anxious worriers, while others are generally calm and relaxed. Some are highly organised and pay attention to detail, while others are disorganized and impressionistic.

Personality refers to the enduring styles of thinking and behaving when interacting with the world (Hogan, Hogan, & Roberts, 1996; MacKinnon, 1944; McCrae & Costa, 2003). Thus, it includes characteristic patterns that make each person unique. These characteristics can be assessed and compared with those of others. Personality is influenced by biological, psychological, and social factors. For example, research has shown that between 20% and 60% of the variance in personality traits (e.g., extroversion, sociability) are influenced by genetic factors, with the remainder influenced by psycho social factors (e.g., relationships that develop with parents, siblings, and friends, as well as life events. While the nature versus nurture debate rages on well beyond statistical models, personality development clearly reflects biological, psychological and social factors.

Personality theories provide a way to understand how people develop, change, and experience generally stable and enduring behaviour and thinking patterns. These theories also help us to understand the differences among people that make each person unique. Ultimately personality theory is used to understand and predict behaviour. This understanding is then used to develop intervention strategies to help people change problematic patterns.

Psychological functioning is a more general term referring to the individual's cognitive personality, and emotional worlds. Thus, psychological functioning includes personality as well as other aspects of emotional, behavioural, cognitive, and interpersonal functioning.

Here psychological functioning refers to particularly non cognitive areas of functioning such as mood and interpersonal relationships. For example, while anxiety, depression, and anger may all be enduring personality traits, they can also be temporary mood states. Someone facing stressful life events, such as the death of a loved one or criminal victimization, may experience severe anxiety, depression, or anger. However, these mood states may not be associated with enduring personality characteristics. Thus, the individual may feel and behave in an anxious or depressed manner as a reaction to the stressful event(s) but does not tend to be anxious or depressed most of the time. Therefore, psychological functioning can be viewed as encompassing the gamut of component psychological processes as they impact one's ability to cope with life's pleasures and demands and uniquely combine to define personality.

A review of the empirical literature on the dimensional models pertinent to individuals' mental representations of self and others and subsequent empirical analyses suggest that the following components are most central in comprising a personality functioning continuum:

Self

- 1) *Identity*: Experience of oneself as unique, with boundaries between self and others; coherent sense of time and personal history; stability and accuracy of self-appraisal and self-esteem; capacity for a range of emotional experience and its regulation.
- 2) *Self-direction*: Pursuit of coherent and meaningful short-term and life goals; utilization of constructive and prosocial internal standards of behavior; ability to self-reflect productively.

Interpersonal

- 1) *Empathy*: Comprehension and appreciation of others' experiences and motivations; tolerance of differing perspectives; understanding of social causality.
- 2) *Intimacy*: Depth and duration of connection with others; desire and capacity for closeness; mutuality of regard reflected in interpersonal behaviour.

In applying these dimensions, self and interpersonal difficulties should not be better understood as a norm within an individual's dominant culture.

Self and Interpersonal Functioning Continuum

Although the degree of disturbance of the self and interpersonal domains is continuously distributed, in practice it is useful to consider levels of impairment in

functioning for efficient clinical characterisation and for treatment planning and prognosis. Patients' conceptualisation of self and others affects the nature of interaction with mental health professionals and can have a significant impact on treatment efficacy and outcome. The following continuum uses each of the dimensions listed above to differentiate five levels of self-interpersonal functioning impairment:

- No impairment
- Mild impairment
- Moderate impairment
- Serious impairment
- Extreme impairment

4.3 MEASUREMENT OF PERSONALITY AND PSYCHOLOGICAL FUNCTIONING

In addition to using interviews, observations, checklists, inventories, and even biological assessments (e.g., neuro imaging techniques such as PET scans), clinical psychologists generally use a range of tests to assess personality and psychological functioning. Most of these tests can be classified as either objective or projective.

Objective testing presents very specific questions (e.g., Do you feel sad more days than not?) or statements (e.g., I feel rested) to which the person responds by using specific answers (e.g., yes / no, true / false, multiple choice) or a rating scale (e.g., 1 = strongly disagree, 10 = strongly agree). Scores are tabulated and then compared with those of reference groups, using national norms. Thus, scores that reflect specific constructs (e.g., anxiety, depression, psychotic thinking, stress) may be compared to determine exactly how anxious, depressed, psychotic, or stressed some one might be relative to the norm.

Projective testing uses ambiguous or unstructured testing stimuli such as inkblots, incomplete sentences, or pictures of people engaged in various activities. Rather than answering specific questions using specific structured responses (e.g., yes/no, true/false, agree/disagree) subjects are asked to respond freely to the testing stimuli. For example, they are asked to tell stories about pictures, or describe what they see in an inkblot, or say the first thing that comes to their mind when hearing a word or sentence fragment. The theory behind projective testing is that unconscious or conscious needs, interests, dynamics, and motivations are projected onto the ambiguous testing stimuli, thereby revealing the internal dynamics or personality. Projective responses are generally much more challenging to score and interpret than objective responses.

4.3.1 Objective Testing

There are hundreds of objective tests of personality and psychological functioning. Clinical psychologists usually employ a small set of objective tests to evaluate personality and psychological functioning. By far the most commonly used test is the Minnesota Multi Phasic Personality Inventory (MMPI), now in its second edition (MMPI-2). The MMPI also includes an adolescent version called the Minnesota Multiphasic Personality Inventory-Adolescents (MMPIA).

Other objective tests such as the Millon Clinical Multiaxial Inventory-III (MCMI-III), the 16 Personality Factors Questionnaire, Fifth Edition (16PF), and the

4.3.2 The Minnesota Multiphasic Personality Inventory (MMPI, MMPI-2, MMPIA)

The original MMPI was developed during the late 1930s and published in 1943 by psychologist Starke Hathaway and psychiatrist J. C. McKinley. The MMPI was revised and became available as the MMPI-2 in 1989. The original MMPI consisted of 550 true / false items. The items were selected from a series of other personality tests and from the developers' clinical experience in an effort to provide psychiatric diagnoses for mental patients. The original pool of about 1000 test items were considered and about 500 items were administered to psychiatric patients and visitors at the University of Minnesota hospitals. The MMPI was designed to be used with individuals ages 16 through adulthood. However, the test has been frequently used with adolescents younger than 16. The MMPI takes about one to one-and-a-half hours to complete.

Scoring the MMPI results in four validity measures and ten clinical measures. The validity measures include the? (Cannot Say), L(Lie), F (Validity), and K (Correction) scales. Admitting to many problems or "faking bad" is reflected in an inverted V configuration with low scores on the L and K scales and a high score on the F scale. Presenting oneself in a favorable light or "faking good" is reflected in a V configuration with high scores on the L and K scales and a low score on the F scale. The clinical scales include Hypochondriasis (Hs), Depression (D), Conversion Hysteria (Hy), Psychopathic deviate (Pd), Masculinity/femininity (Mf), Paranoia (Pa), Psychasthenia (Pt), Schizophrenia (Sc), Hypomania (Ma), and Social Introversion (Si). Scores are normed using standardized T-scores, meaning that each scale has a mean of 50 and a standard deviation of 10. Scores above 65 (representing one and one half standard deviations above the mean) are considered elevated, and in the clinical range. While 65 is the cut off score on the MMPI-2 and MMPI-A, 70 is used with the original MMPI. Since the MMPI was originally published, a number of additional subscales have been developed, including measures such as Repression, Anxiety, Ego Strength, Over controlled Hostility, and Dominance. It has been estimated that there are over 400 subtests of the MMPI (Dahlstrom, Welsh, & Dahlstrom, 1975). The MMPI has been used in well over 10,000 studies that examine a wide range of clinical issues and problems (Graham, 1990).

Although the original MMPI was the most widely used psychological test, a revision was needed. For example, the MMPI did not use a representative sample when it was constructed. The original sample included Caucasians living in the Minneapolis, Minnesota, area who were either patients or visitors at the University of Minnesota hospitals. Also, many of the more sophisticated methods of test construction and analysis used today were not available in the late 1930s when the test was developed. Therefore, during the late 1980s, the test was re-standardized and many of the test items were rewritten. Furthermore, many new test items were added, and outdated items were eliminated. The resulting MMPI-2 consists of 567 items and can be used with individuals aged 18 through adulthood. The MMPI-2 uses the same validity and clinical scale names as the MMPI. Importantly, many have noted that the names reflecting each of the MMPI (or MMPI-2) scales are misleading. For example, a high score on the Schizophrenia (Sc) scale does not necessarily mean that the person who completed the test is

schizophrenic. Therefore, many clinicians and researchers prefer to ignore the scale names and use numbers to reflect each scale instead. For example, the Schizophrenia (Sc) scale is referred to as Scale 8.

Like the original MMPI, the MMPI-2 has numerous subscales, including measures such as Type A behaviour, post traumatic stress, obsessions, and fears.

4.3.3 The Minnesota Multiphasic Personality Inventory-Adolescent (MMPI-A) (Butcher, et al., 1992)

This was developed for use with teens between the ages of 14 and 18. The MMPI-A has 478 true / false items and includes a number of validity measures in addition to those available in the MMPI and MMPI-2. The MMPI, MMPI-2, and MMPI-A can be scored by hand using templates for each scale or they can be computer scored. Most commercially available computer scoring programs offer in depth interpretive reports that fully describe the testing results and offer suggestions for treatment or other interventions. Scores are typically interpreted by reviewing the entire resulting profile rather than individual scale scores. Profile analysis is highlighted by examining pairs of high scores combinations. For example, high scores on the first three scales of the MMPI are referred to as the neurotic triad reflecting anxiety, depression, and somatic complaints. Research indicates that the MMPI, MMPI-2, and MMPI-A have acceptable reliability, stability, and validity (Butcher et al., 1989; Butcher et al., 1992; Graham, 1990; Parker et al., 1988).

However, controversy exists concerning many aspects of the test. For example, the Mac Andrew Scale was designed as a supplementary scale to classify those people with alcohol related problems. The validity of the scale has been criticized and some authors have suggested that the scale no longer be used to examine alcohol problems (Gottesman & Prescott, 1989).

4.3.4 The Millon Clinical Multiaxial Inventories

The Millon Clinical Multiaxial Inventories (MCMI) include several tests that assess personality functioning using the *DSM-IV* classification system and the Theodore Millon theory of personality (Millon, 1981). Unlike the MMPI-2, the Millon was specifically designed to assess personality disorders outlined in the DSM such as histrionic, borderline, paranoid, and obsessive compulsive personalities. The first Millon test was published in 1982; additional tests and revisions quickly developed during the 1980s and 1990s. The current tests include the Millon Clinical Multiaxial Inventory-III (MCMI-III; Millon, Millon, & Davis, 1994), the Millon Adolescent Clinical Inventory (MACI; Millon et al., 1994), the Millon Behavioural Health Inventory (MBHI; Millon, Green, & Meagher, 1982), the Millon Clinical Multiaxial Inventory-II (MCMI-II; Millon, 1987), and the Millon Adolescent Personality Inventory (MAPI; Millon, Millon, & Davis, 1982).

The MBHI, however, is a health behaviour inventory and not a measure of personality or psychological functioning per se. The MCMI-III will be highlighted here. The MCMI-III is a 175 true/false item questionnaire designed for persons aged 18 through adulthood and takes approximately 30 minutes to complete. It was designed to assess personality disorders and syndromes based on the *DSM-IV* system of classification. The MCMI-III includes 24 scales, including 14 personality pattern scales and 10 clinical syndrome scales. Further more, the MCMI-III also includes several validity measures.

4.3.5 The Sixteen Personality Factors (16PF)

The 16PF was developed by Raymond Cattell and colleagues and is currently in its fifth edition (Cattell, Cattell, & Cattell, 1993). It is a 185 item multiple-choice questionnaire that takes approximately 45 minutes to complete. The 16 PF is administered to individuals aged 16 years through adulthood. Scoring the 16PF results in 16 primary personality traits (e.g., apprehension prone) and five global factors that assess second order personality characteristics (e.g., anxiety). Standardized scores from 1 to 10 or sten scores are used with means set at 5 and a standard deviation of 2. The 16 PF has been found to have acceptable stability, reliability, and validity (Anastasi & Urbina, 1996; Cattell et al., 1993).

4.3.6 The Neo-Personality Inventory Revised

The NEO-PI-R (Costa & McCrae, 1985, 1989, 1992) is a 240 item questionnaire that uses a 5-point rating system. A brief 60-item version of the NEO-PI-R called the NEO-Five Factor Inventory (NEO-FF) is also available as well as an observer rating version (Form R).

The NEO-PI-R measures the big five personality dimensions: neuroticism, extroversion, openness, agreeableness, and conscientiousness. The *big five* or the five factor model has been found to be consistent personality dimensions from factor analytic research conducted for over 40 years and across many cultures (Digman, 1990; McCrae & Costa, 2003). The NEO-PI traits are referred to as the big five because in many research studies they have been found to account for a great deal of variability in personality test scores (McCrae & Costa, 2003; Wiggins & Pincus, 1989). The NEO-PI-R has been found to be both reliable and valid (Costa & McCrae, 1992). Unlike the other objective tests mentioned, the NEO-PI-R does not include validity scales to assess subject response set.

4.4 OTHER OBJECTIVE TESTS

Additional objective personality tests include the Edwards Personal Preference Schedule (EPPS; A. L. Edwards, 1959), a 225-item paired comparison test assessing 15 personality variables, The Eysenck Personality Questionnaire (Eysenck & Eysenck, 1975), measuring three basic personality characteristics: psychoticism, introversion extroversion, and emotionality stability and California psychological inventory (CPI). Many other tests are available as well, however, they generally are not as commonly used as those previously discussed.

4.4.1 The Edwards Personal Preference Schedule (EPPS)

There are two theoretical influences that resulted in the creation of the EPPS. The first is the theory proposed by Henry Murray (1938) which, among other aspects, catalogued a set of needs as primary dimensions of behaviour for example, need achievement, need affiliation, need heterosexuality. A second theoretical focus is the issue of *social desirability*. A. L. Edwards (1957) argued that a person's response to a typical personality inventory item may be more reflective of how desirable that response is than the actual behaviour of the person. Thus a true response to the item, "I am loyal to my friends" may be given not because the person *is* loyal, but because the person perceives that saying "true" is socially desirable.

A. L. Edwards developed a pool of items designed to assess 15 needs taken from Murray's system. Each of the items was rated by a group of judges as to how socially desirable endorsing the item would be. Edwards then placed together pairs of items that were judged to be equivalent in social desirability, and the task for the subject was to choose one item from each pair.

Each of the scales on the EPPS is then composed of 28 forced-choice items, where an item to measure need Achievement for example, is paired off with items representative of each of the other 14 needs, and this done twice per comparison. Subjects choose from each pair the one statement that is more characteristic of them, and the chosen underlying need is given one point. The EPPS, like most other personality inventories, is commercially available, a group test, a self report paper and pencil inventory, with no time limit, designed to assess what the subject typically does, rather than maximal performance.

The EPPS is designed primarily for research and counseling purposes, and the 15 needs (such as Achievement, Deference, Order, Exhibition, Autonomy, Affiliation, Interception) that are scaled are presumed to be relatively independent normal personality variables. The EPPS is easy to administer and is designed to be administered within the typical 50 minute class hour. There are two answer sheets available, one for hand scoring and one for machine scoring. The test manual gives both internal consistency (corrected split-half coefficients based on a sample of 1,509 subjects), and test retest coefficients (1-week interval, $n = 89$); the corrected split half coefficients range from $+0.60$ for the need Deference scale to $+0.87$ for the need Heterosexuality scale. The test-retest coefficients range from $+0.74$ for need Achievement and need Exhibition, to $+0.88$ for need Abasement. The test manual presents little data on validity, and many subsequent studies that have used the EPPS have assumed that the scales were valid. The results do seem to support that assumption, although there is little direct evidence of the validity of the EPPS.

4.4.2 The California Psychological Inventory (CPI)

The CPI is considered an important instrument by clinicians, and indeed it is. Surveys done with professional groups place the CPI in a very high rank of usefulness, typically second after the MMPI.

The CPI, first published in 1956 and developed by Harrison Gough, originally contained 480 true false items and 18 personality scales. It was revised in 1987 to 462 items with 20 scales. Another revision that contains 434 items was completed in 1995. Items that were out of date or medically related were eliminated. But the same 20 scales were retained. The CPI is usually presented as an example of a strictly empirical inventory, but that is not quite correct. First of all, of the 18 original scales, 5 were constructed rationally, and 4 of these 5 were constructed using the method of internal consistency analysis. Second, although 13 of the scales were constructed empirically, for many of them there was an explicit theoretical framework that guided the development; for example, the Socialisation scale came out of a role theory framework. Finally, with the 1987 revision, there is now a very explicit theory of human functioning incorporated in the inventory.

The 20 scales (for example Dominance, Capacity, Sociability, Responsibility, Socialisation etc.) are arranged in four groups; these groupings are the result of logical analyses and are intended to aid in the interpretation of the profile, although the groupings are also supported by the results of factor analyses. Group I scales

measure interpersonal style and orientation, and relate to such aspects as self confidence, poise, and interpersonal skills. Group II scales relate to normative values and orientation, to such aspects as responsibility and rule respecting behaviour. Group III scales are related to cognitive intellectual functioning. Finally, Group IV scales measure personal style.

The basic goal of the CPI is to assess those everyday variables that ordinary people use to understand and predict their own behaviour and that of others. This is termed by Gough as folk concepts. These folk concepts are presumed to be universal, found in all cultures, and therefore relevant to both personal and interpersonal behaviour. The CPI then is a personality inventory designed to be taken by a "normal" adolescent or adult person, with no time limit, but usually taking 45 to 60 minutes. In addition to the 20 standard scales, there are currently some 13 "special purpose scales" such as, for example, a "work orientation" scale (Gough, 1985) and a "creative temperament" scale (Gough, 1992). The 1987 revision of the CPI also included three "vector" or structural scales, which taken together generate a theoretical model of personality.

The first vector scale called "v1" relates to introversion extraversion, while the second vector scale, "v2," relates to norm accepting vs. norm questioning behaviour. A classification of individuals according to these two vectors yields a four fold typology. According to this typology, people can be broadly classified into one of four types: the alphas who are typically leaders and doers, who are action oriented, and rule respecting; the betas who are also rule respecting, but are more reserved and benevolent; the gammas, who are the skeptics and innovators; and finally, the deltas who focus more on their own private world and may be visionary or maladapted.

Finally, a third vector scale, "v3," was developed with higher scores on this scale relating to a stronger sense of self-realisation and fulfillment. These three vector scales, which are relatively uncorrelated with each other, lead to what Gough (1987) calls the cuboid model. The raw scores on "v3" can be changed into one of seven different levels, from door to superior each level defined in terms of the degree of self realisation and fulfillment achieved. Thus the actual behaviour of each of the four basic types is also a function of the level reached on "v3"; a delta at the lower levels may be quite maladapted and enmeshed in conflicts while a delta at the higher levels may be highly imaginative and creative.

As with other personality inventories described so far, the CPI requires little by way of administrative skills. It can be administered to one individual or to hundreds of subjects at a sitting. The directions are clear and the inventory can be typically completed in 45 to 60 minutes. The CPI has been translated into a number of different languages, including Italian, French, German, Japanese, and Mandarin Chinese.

The CPI can be scored manually through the use of templates or by machine. A number of computer services are available, including scoring of the standard scales, the vector scales, and a number of special purpose scales, as well as detailed computer-generated reports, describing with almost uncanny accuracy what the client is like. The scores are plotted on a profile sheet so that raw scores are transformed into *T* scores. Unlike most other inventories where the listing of the scales on the profile sheet is done alphabetically, the CPI profile lists the scales in order of their psychological relationship with each other, so that profile interpretation of the single case is facilitated. Also each scale is keyed and graphed so that higher functioning scores all fall in the upper portion of the profile.

4.5 LET US SUM UP

Many tests exist to measure personality and psychological functioning such as mood. Most of these tests can be classified as either objective or projective instruments. Objective instruments present very specific questions or statements to which the person responds to using specific answers. Scores are tabulated and then compared with those of reference groups, using national norms. The most commonly used objective personality tests include the Minnesota Multi Phasic Personality Inventory (MMPI, MMPI-2, MMPI-A), the Millon Clinical Inventories (MCMI-III, MCMI-II, MACI, MAPI, MBHI) and the 16 Personality Factors Questionnaire (16PF).

4.6 UNIT END QUESTIONS

- 1) Self-report measures assume that the respondent
 - a) is probably the best observer of his/her own behaviour
 - b) will fake if given the opportunity
 - c) answers in a highly truthful manner
 - d) will give responses that deviate from the norm
- 2) The 16 PF is based on the notion that:
 - a) there are 16 basic personality dimensions scaled through factor analysis
 - b) personality is pretty much established once a person reaches age 16
 - c) there are 16 traits of pathology
 - d) there are 16 basic personality types
- 3) The 16 PF
 - a) is basically a self-administered test
 - b) requires a skilled examiner to administer
 - c) yields scores on three vector scales
 - d) is based on the theory of E. Erikson
- 4) The scales of the EPPS reflect:
 - a) types from Jungian theory
 - b) needs from Murray's theory
 - c) folk concepts
 - d) Eriksonian stages of life
- 5) CPI scales have two major purposes, one of which is:
 - a) to predict what people will say and do in specific contexts
 - b) to assess the basic needs that people have
 - c) to identify how intuitive a person is
 - d) to determine how valid self-ratings are

- 6) The standard MMPI profile includes eight psychiatric scales and a(n)
 - a) MF scale and a Social Introversion scale
 - b) Masculinity scale and a Femininity scale
 - c) Hypomania scale and a Depression scale
 - d) Depression scale and an Anxiety scale
- 7) The Lie scale on the MMPI is composed of items that:
 - a) have high correlations with social desirability
 - b) are quite heterogeneous but cover poor physical health
 - c) showed a significant response shift between lie and honest instructions
 - d) most people, if answering honestly, would not endorse
- 8) The K scale of the MMPI was developed by comparing psychiatric patients and normals:
 - a) both with abnormal profiles
 - b) both told to lie
 - c) both with normal profiles
 - d) who were related by marriage
- 9) One of the major concerns of the original MMPI:
 - a) the psychiatric diagnoses were not valid
 - b) the inventory was too long
 - c) the standardization sample was not representative
 - d) the original sample did not include children
- 10) The MMPI 2:
 - a) is highly similar to the original MMPI
 - b) can for all practical purposes be considered a new test
 - c) contains an entirely new set of scales
 - d) is aimed at adolescents rather than adults
- 11) This test was developed as a better and more modern version of the MMPI:
 - a) Millon Clinical Multiaxial Inventory
 - b) State-Trait Anxiety Inventory
 - c) Center for Epidemiologic Studies Scale
 - d) Wisconsin Personality Disorders Inventory
- 12) As contrasted to the MMPI, the MCMI:
 - a) has a well-defined theoretical rationale
 - b) is substantially longer than the MMPI

- c) does not use the DSM for diagnostic criteria
 - d) can be administered to a group
- 13) What are the differences between objective and projective psychological testing?
- 14) List the major objective tests used in clinical psychology.
- 15) What are the main types of personality tests used?

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