AN ABSTRACT OF THE THESIS OF

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in Psychology presented on April 25, 1991

Title: Imagery: Cross-Cultural Comparison of Abilities Between Native American and Caucasian Adults

Abstract approved by: Clayton B. Holmes

Fifty Caucasian adult males and females were compared with 50 Native American adult males and females to determine if there were differences in abilities in imagery, imagination, and creativity. The Thematic Apperception Test (TAT) card #16 which is the "blank card" was chosen as the measure because of the potential for stimulus ambiguity. A modified version of Betts Questionnaire Upon Mental Imagery (the QMI) was used to assess the individual imagery abilities on the TAT card #16 responses in fourteen specified factor areas of outline-shape-and size, color, form-feature, distance-location, light, movement, auditory senses, cutaneous skin, gustatory, olfactory, organic, feelings of relation, feelings of effort, and personal feelings. Responses were evaluated by two raters on a seven point Likert Scale from a perfectly clear image (1) to no image at all (7).

The study was derived from a theoretical position that because Native Americans are associated with a tribal heritage of visualization and storytelling processes they might more easily adapt to imagery

techniques. This position was not supported by the evidence in this project. The overall null hypotheses that there were no significant differences between the two populations in their creative ability to image as measured by the TAT card #16 and the QMI was accepted.

Differences of content did occur on specific comparisons of QMI factors. Individual item analysis of ethnicity revealed the Caucasian population gave significantly more detailed responses in the factor category of color. Other differences in the factor categories of form and feature and light (slightly more detailed for Caucasians) and auditory senses (slightly more detailed for Native Americans) were not considered large enough to be of any real significance. The results would lead to the conclusion that overall, there were very few differences in the individual responses of the two ethnic groups and no measurable differences in the ability to image between Native American and Caucasian adults.

IMAGERY: CROSS-CULTURAL COMPARISON OF ABILITIES BETWEEN NATIVE AMERICAN AND CAUCASIAN ADULTS

A Thesis

Presented to

The Division of Psychology and Special Education

EMPORIA STATE UNIVERSITY

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

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by

Jerry A. Kraft

May 1991

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Approved for the Major Division

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ACKNOWLEDGEMENTS

My sincere appreciation cannot fully be expressed in words to all those who have been so very helpful during the long process of writing this thesis.

Dr. Cooper Holmes has, as always, given freely of his time in the constructive criticism necessary to the completion of this final manuscript. As the chairman of my thesis committee, I respect his advice, value his judgment, and feel very fortunate to have been one of his many grateful students.

Dr. Nancy Knapp and Dr. Phil Wurtz have also given their assistance, expertise, and encouragement to the project as committee members in a way that has always been accessible.

Thanks are also extended to Dr. Kenneth Weaver, who as statistical consultant was tremendously patient and always enthusiastic in the organizing of the completed data.

Karen Williams was the typist who put everything together many times and sometimes made changes at a moment's notice.

Finally, I would like to thank my husband Larry, for his continuing love, friendship, support, and assistance not only of the construction of this thesis or of my own goals, but of his firm belief that everyone should be supported in achieving their personal goals.

In the language of the Muskogee (Mvskoke) Creek Nation, I would like to simply say to all of you during this, the time that is called the season of the Mulberry tree (Ke-hv˜se), thank you! (Mvto-pronounced ma'do), thank you! (Mvto) thank you! (Mvto).

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Chapter 1

INTRODUCTION

Although imagery has been an instrument of therapeutic intervention throughout the recorded history of medicine, recent interest in widely varied imagery techniques has greatly expanded and intensified. Numerous widely varied imagery-based therapies have emerged over the years abroad and in this country.

Whether images represent a direct encoding of perceptual experiences (Paivio, 1973), an artifact of propositional structuring of reality (Pylyshyn, 1973), or a constructive and reconstructive process (Kosslyn, 1980), the definition provided by Richardson (1969) is implicit in most of these approaches. Richardson's (1969) definition stated that "mental imagery refers to all those quasi-sensory or quasi-perceptual experiences of which we are self-consciously aware, and which exist for us in the absence of those stimulus conditions that are known to produce their genuine sensory or perceptual counterparts" (p. 2).

The importance of the use of mental imagery in psychotherapy is being realized, and the possibility of the supremacy of images over words is being examined (Ahsen, 1977; Sheikh & Shaffer, 1979; Singer, 1974; Singer & Pope, 1978). There are numerous characteristics of the imagery mode that make it an eminently suitable vehicle for clinical work. Klinger (1980) stated: "It seems quite likely that imagery represents the functioning of important parts of the same psychological apparatus that we are exercising in all our activities. That is, imagery

represents the central core of perceptual, retrieval, and response mechanisms" (p. 5). Thus "experiencing something in imagery can be considered to be in many essential ways psychologically equivalent to experiencing the thing in actuality" (Klinger, 1980, p. 5). This view is shared by other authors and researchers (Kosslyn, 1980; Neisser, 1976; Sheikh & Shaffer, 1979). A number of studies, including those by Perky (1910), Leuba (1940), John (1967), and Segal and Fusella (1970), indicate that imagery and perception are experientially and neurophysiologically comparable processes and cannot be distinguished from each other by any intrinsic qualities (Richardson, 1969). Hebb's and Pribram's views tend to support this assertion (Singer, 1974). Penfield (1963) demonstrated that the locus of image excitation corresponded to localization of sensory functions in the brain.

It has been observed that spontaneous images occur in some individuals at times of verbal blockage; the images fill in with perceptual, usually pictorial representation when the individual is unable to continue to formulate experiences verbally (Pangiotou & Sheikh, 1977). Also, imagery frequently opens up new avenues of exploration when therapy seems to come to a halt (Singer, 1974). Dave (1976) reported that during an impasse on some problem the visualization of elements in the problem is of greater benefit than the utilization of a rational cognitive approach.

It has been demonstrated that "free imagery," an analogue of free association, is extremely effective in circumventing even very stubborn defenses and uncovering repressed material (Klinger, 1980; Pangiotou & Sheikh, 1977; Reyher, 1963). Singer (1974) stated that "the resort to imagery may catch the patient by surprise and outwit his defenses"

(p. 251). Horowitz (1970, 1974) stated that the image mode is the medium most sympathetic with unconscious organization. It permits the spanning of the conscious-unconscious continuum more readily than does overt or covert language; elements from the unconscious more easily "slip into" imagoic cognition, and image forms more readily act as symbols (Pangiotou & Sheikh, 1977). Pangiotou and Sheikh noted:

> Images are less likely to be filtered through the conscious critical apparatus than is linguistic expression. In most cases, words and phrases must be consciously understood before they are spoken; for in order to assume a grammatical order they must first pass through a rational censorship. Imagery, perhaps, is not subject to this filtering process, and therefore may have the opportunity to be a more direct expression of the unconscious. (p. 556).

In the same vein, Jellinek (1949) explained that imagery, because of its primordial forms, has a special function as the "direct voice of the unconscious" (p. 372). Jellinek (1949) noted the intrapsychic prophetic function of imagoic cognition: Ideas and responses often occur in imagery and appear only later in verbal cognition and behavior.

Guided-daydream images in many cases are likely to produce therapeutic consequences in the absence of any interpretation by the guide or intellectual insight by the client (Klinger, 1980; Leuner, 1977). Solutions rehearsed at the imaginal level during therapy appear to generalize outside of the therapy situation (Klinger, 1980; Richardson, 1969).

Although studies have been done on imagery comparing differences by gender (Holt, 1972; Richardson, 1977) and determining fantasy-prone

personality types (Buchanan, 1986) with the use of the Myers-Briggs Type Indicator test, the present researcher has been unable to find any results of imagery experiments done as cross-cultural comparisons specifically with the Native American population. Imagery and visualization are very much a part of the heritage, religion, and philosophy of the Native Americans. They recognize and have a reverence for the spiritual power in plants, in animals, in natural forces, and in spirits of the dead. Their religious healing system attempts to maintain man's harmony with these forces (Proskauer, Barsh, & Johnson, 1980); and in some instances they may be unable to communicate verbally or not as easily in our own modern technological society (Lofgren, 1981). He commented:

> The ability to 'turn themselves off' is so remarkable among some Indians that the lie-detector apparatus registers on them almost at a standstill, and many have had operations and teeth drilled without anesthesia, relying on their ability to withdraw completely. A few years ago a psychiatrist ran into a dozen or so Indians from a reservation who were brought into a California hospital. Not understanding the Indian and his trained ability to retreat into silence he diagnosed them as having catatonic schizophrenia. Other similar misdiagnoses have occurred and clinical misunderstanding of these cultural differences will continue to allow these possibilities. (cited in Villasenor, 1963, p. 4)

The effort to understand the behavior of cultures other than our own has been greatly aided by the addition of psychological data and insight to the usual anthropological approach. The projective instruments,

particularly the TAT and the Rorschach (Inkblot Test) have played an important role in this development (Anderson, 1964).

Several studies have been done on various cultural groups. Those studies have justified conclusions that the TAT is of considerable utility in the study of persons in cultures other than our own, both in the analysis of individuals, and in the analysis of basic personality characteristics of the culture (Anderson, 1964).

In 1942, the United States Office of Indian Affairs and the Committee on Human Development of the University of Chicago inaugurated the Research on Indian Education program. This program investigated and compared a number of Native American communities including members 6-18 years of age from the Papago, Zuni, Zea, Hopi, Navaho, and Sioux tribes. They studied the development of personality from birth to adulthood and the relation of the child-training patterns to the social structure.

In addition to the TAT records collected on these children, there was also available life-history material collected by psychiatrists, anthropologists, and school teachers on each child and his/her family. Psychometric examinations, Rorschach technique records, a series of free drawings, and a battery of psychological tests designed to reveal the official ideology and moral values of the group and the dominant fears and anxieties of the children were also collected.

Several other studies have been initiated. Each has used the TAT in its original form or in a form modified from the series used in the American Indian Study of 1942 (Anderson, 1964).

The Study of Mexican Indian Groups was initiated by the U.S. Office of Indian Affairs and the Mexican Institute of Indian Affairs (Anderson,

1964). A study of the Ojibwa, an American Indian group located in Wisconsin, was completed by Caudill (1964).

Bigart (1968) used the TAT and three other psychological tests to investigate changes in the culture of a Flathead Reservation community. The study examined several aspects of the model personality forms in a contemporary Salish Flathead community to see if the Salish had adopted Caucasian psychological patterns along with Western technology. On-and-off reservation Caucasians and reservation Native Americans were divided according to degree of Native American blood and economic status. Results suggested that neither intermarriage nor rising economic level of the Native Americans has caused a shift in psychological orientation. TAT results for reservation Caucasians suggested that they have assumed some less obvious Native American values, at least during adolescence. Off-reservation Caucasians differed considerably from the on-reservation sample.

Martin and Bastian (198Ø) studied the relationship between behavioral indices of aggression and hostile content on the TAT for incarcerated young women. The subjects were 15 women between 16 and 2Ø years of age. No support was found that hostile content on the TAT was negatively correlated with behavioral measures of aggression. Instead, results suggested that there is no significant relationship between variables, at least with an incarcerated, predominantly Native American female population.

Other projective measures have been successfully utilized in studies of Native American populations. In 1955, Spindler conducted a study of sociocultural and psychological processes in the Menomini tribe of Wisconsin. He attempted to demonstrate relationships existing between

two processes in the tribe which has been subjected to three hundred years of Western influences with the use of the Rorschach personality test.

Hallowell's study (1955) of the Ojibwa tribe, which utilized the Rorschach as a projective test, was quite similar to Spindler's study and in its conclusions. Plausible relationships to the sociocultural context were suggested by the culturally demanded self-control, humility, a high degree of concern for others, and constraint upon interpersonal aggression. These traits were expressed psychologically in the general lack of overt emotional responsiveness, and the control over that which did appear. A culturally prescribed dependence upon supernatural power and on acceptance of fate was reflected in the absence of anxiety, tension, or rigidity as a defense against anxieties. Organization was evidenced by emotional and reality control with nature-oriented subjects being comparatively closed and emotionally controlled. There was a lack of unsystematized anxiety, the absence of introspection as an attempt at anxiety resolution, and indications of general psychological adequacy in terms of the respective sociocultural setting. Analysis of differences by the Caucasian group in comparison revealed that the subjects within it were psychologically distant from the Native-oriented group (Spindler, 1955).

In 1969, Cocking conducted a study of fantasy confession among Arapaho Native American children. This study explored the differences in the use of fantasy confession in projective story completions among 10-to 13-year old subjects. Four major areas were investigated: (a) childrens' use of confession in a structured projective test, (b) a relationship between cheating behavior and confessions, (c) the variety

of fantasy confessions elicited from Arapaho Native American children; and (d) the story endings of confessants and nonconfessants. In contrast to previous studies using other populations, there appeared to be neither sex differences in the use of fantasy confession nor sex differences in cheating behavior for Arapaho Native American children.

The problem of the use of projective instruments in cultural studies is basically identical with that of the analysis of the individual. That is, the analysis and discovery of those interaction-feeling units that are characteristically of the group being studied, the interrelationships of those units both within the group and in the characteristic social life-space of the group (Anderson, 1964).

The purpose of the present study was to compare measures of imagery, imagination, and creativity on Thematic Apperception Test Card #16 between Native American and Caucasian adult subjects. This will add to a very limited data base within this area.

Because of the tribal heritage of this population to visualization and storytelling processes that have always been used as a part of their culture, Native Americans might more easily have adapted to the visual methods of treatment. Comparative scales have shown the indicators for creative imagery processes in this population when compared to the Caucasian population.

The research questions that were asked are:

1. Are there differences in the ability to image and visualize between Native American and Caucasian adults?
2. Are there differences of content in the responses of Native American and Caucasian adults?

Chapter 2

METHOD

Subjects

Fifty Caucasian males and females, were selected randomly from adults tested previously by students as part of the fulfillment of requirements for completion of the Thematic Apperception Test course during the Fall semester (1990) at Emporia State University. Participants' names were not revealed and only necessary information such as age and occupation was released to the researcher for purposes of matching or developing an appropriately comparable sample.

Fifteen Native Americans were selected at random from client files at the United States Public Health Service Indian Hospitals at Pawnee, Oklahoma, by Marc Clanton, Director of Psychiatric Services and from client files at Lawton, Oklahoma, by Richard Downey, Director of Psychiatric Services. Tribes represented within these tests include the Five Civilized Tribes (Creek, Cherokee, Chickasaw, Choctaw, and Siminole).

The remainder of Native American participants (35) were selected at random from a body of data entitled "Primary Records in Culture and Personality," edited by Bert Kaplin (1956) through the Microcard Foundation of Madison, Wisconsin. This project was supported by grants from the National Institute of Mental Health of the U.S. Public Health Service and the University of Kansas General Research Fund for the purpose of providing a continuing and updated body of material on the

intricate and subtle relations that exist between cultural variablity and the dynamics of personality development. The data for the present study were TAT protocols collected without interpretation from representatives of the following tribes: Hopi, Navajo, and Zuni.

Instrument

The TAT materials consisted of 31 cards containing vague pictures in black and white and one blank card. Ten cards were selected to make up a typical protocol with card #16 included in all. The examinee was asked to make up a story to fit each picture, to tell what led up to the event shown in the picture, to describe what was happening at the moment and what the characters were feeling and thinking, and to give the outcome. In the case of the blank card, the respondent was instructed to imagine some picture on the card, describe it, and then tell a story about it. Four overlapping sets of 20 cards were available--for boys, girls, males over 14, and females over 14. Most clinicians use abridged sets of specially selected cards, seldom giving more than 10 cards to a single respondent (see Appendix A).

The Thematic Apperception Test was chosen as the specific instrument of measure for this research project because it is designed as a method for the stimulation, recording, and analysis of fantasy (Bell, 1948). The study focused on card #16 which is the "blank card" because of the potential for "stimulus ambiguity."

A modified version of Betts' (1909) Questionnaire Upon Mental Imagery (the QMI) was used to assess the individual imagery ability (see Appendix B) of subjects on the TAT card #16 responses. The QMI is one of the two most frequently used imagery assessment devices, the other being the Gorden Test of Visual Imagery Control (Westcott & Rosenstock, 1976).

Of the two tests, the Betts scale has been given the most attention, and use of the questionnaire is widespread. Reliabilities have been assessed by means of test-retest and Cronbach's Coefficient Alpha using 147 subjects. Betts scale test-retest reliabilities ranged from .72 to .75 and alphas ranged from .90 to .94. Juhasz (1972) reports an odd-even reliability coefficient of .95 for the QMI (N = 67), and test-retest reliabilities of .72 - .75 (N = 147).

Results from tests and evaluation checklists were evaluated by two qualified raters who were instructed in specific definitions of the criterion categories. The raters were art therapy students who had taken the required course work to be knowledgeable with the TAT. To prevent experimental bias, the researcher of this study did not administer or score any of the tests involved.

Procedure

The two raters met with the researcher to receive the card #16 responses from both populations (Native American and Caucasian), and Bett's QMI scoresheets that were set upon a seven point Likert scale. A scoresheet was provided for each sample.

Clarification was given and questions were answered about the meanings of each of the fourteen categories of the Bett's QMI scale so there would be no misunderstanding about definition. These definitions were taken from the book by Betts entitled The Distribution and Functions of Mental Imagery (1909). This book was left in a place of dual access for both raters to use as a reference and the researcher remained available during the scoring of the first set of 25 responses. A check was made to see if raters were scoring within a similar percentage range of opinion.

The remainder of the participants responses were scored independently by each of the two raters at their own convenience within a two-week period. When they completed the scoring, the data and scoresheets were collected by the researcher to be tabulated by computer.

Chapter 3

RESULTS

The procedure produced two scores from the Likert Scale. This was a seven-point scale that called for a graded response to each item from the Betts QMI evaluation. The responses were graded in terms of the following seven categories:

1. perfectly clear and as vivid as the actual experience
2. very clear and comparable in vividness to the actual experience
3. moderately clear and vivid
4. not clear or vivid but recognizable
5. vague and dim
6. so vague and dim as to be highly discernable
7. no image present at all (Lin, 1976).

To score the scale, the response options were credited 7, 6, 5, 4, 3, 2, or 1 from the most clear response to the other end (no response or 7). The sum of the item credits represented the individual's total score, which must have been interpreted in terms of empirically established norms (Anastasi, 1982).

The procedure described above produced fourteen scores for each subject on the Betts' Questionnaire Upon Mental Imagery (the QMI). Two scores, one from each rater, were averaged. Group means and standard deviations were determined for Caucasians, Native Americans, and combined categories for each score. The differences between pairs of means between the two scores were investigated through the use of a 2 x 14

ANOVA using a significance level of .05. When significant differences were found the Bonferonni *t* test was used to make specific kinds of comparison.

The present study was designed to assess the differential effects of individual imagery ability comparing two different samples, Native Americans and Caucasians. Responses to each factor of the Bett's Questionnaire Upon Mental Imagery (QMI) were evaluated by two different raters blind to the groups on a seven point Likert Scale from a perfectly clear image (1) to no image at all (7). The dependent variable was the average of the two rater's scores. These data were analyzed by a 2 (Ethnicity: Native American or Caucasian) x 14 (Factors on the Bett's QMI outline, shape, and size, color, form and feature, distance and location, light, movement, auditory senses, cutaneous skin, gustatory, olfactory, organic, feelings of relation, feelings of effort, and personal feelings) mixed factor analysis of variance (Table 1).

Table 1

Analysis of Variance of Imagery Scores of Native Americans and Caucasians

	Source	df	SS	MS	F
Between Subjects	Ethnicity	1	8.48	8.48	0.70
	Error	98	1180.73	12.04	
Within Subjects	Tests	13	291.63	22.43	9.83*
	Tests by Ethnicity	13	101.43	7.80	3.42*
	Error	1274	2908.45	2.28	

* $p < .001$

Tests, $F(13, 1274) = 9.83$, $p < .001$, and the Tests by Ethnicity interaction, $F(13, 1274) = 3.42$, $p < .001$, were significant. As only a subset of all possible comparisons needed to be made, specifically those between Native American and Caucasian on each factor, a series of Bonferroni t comparisons were done (Table 2).

Table 2

Means and Standard Deviations of the Tests on Betts' Questionaire Upon Mental Imagery by Ethnicity

	Native American		Caucasian	
	M	SD	M	SD
Outline, Shape and Size	6.27	(1.44)	5.63	(1.78)
Color	6.56	(1.37)	5.25	(2.41)**
Form, Feature	4.91	(1.92)	4.08	(1.77)*
Distance, Location	4.00	(1.91)	4.17	(2.18)
Light	6.46	(1.39)	5.70	(2.09)*
Movement	3.56	(1.82)	3.88	(2.02)
Auditory Senses	5.46	(2.06)	6.25	(1.61)*
Cutaneous Skin	6.55	(1.27)	6.32	(1.09)
Gustatory	6.69	(0.93)	6.94	(0.42)
Olfactory	6.95	(0.35)	6.99	(0.07)
Organic	5.34	(1.92)	5.65	(1.99)
Feelings of Relation	3.83	(1.75)	3.66	(2.11)
Feelings of Effort	4.10	(1.80)	4.03	(1.97)
Personal Feelings	4.35	(2.02)	4.30	(2.10)

* $p < .10$ ** $p < .05$

The planned comparisons revealed that Caucasians have clearer images of color, form and feature (not significant), and light (not significant), as measured on the Betts QMI, whereas the Native American population had slightly clearer imagery on the factor for auditory senses.

Chapter 4

DISCUSSION

The present study was derived from a theoretical position that because Native Americans are associated with a tribal history and heritage of visualization and storytelling processes they might more easily adapt to visual methods of imagery. Also, their responses on comparative scales might show an increase in the indicators of tests using these processes, as compared to Caucasian populations.

This theoretical position was not supported by the evidence in this study. The overall null hypotheses that there were no significant differences between Native American and Caucasian populations in their creative ability to image as measured by the Thematic Apperception Test (TAT)--card #16 and the Betts' Questionnaire Upon Mental Imagery (QMI) was accepted.

However, differences of content did occur in the responses of Native Americans and Caucasians on specific comparisons of QMI factors. Individual item analysis and comparison of ethnicity revealed the Caucasian population gave significantly more detailed responses in the factor category of color. This was also true in the factor categories of form and feature and light, although these measurements were not considered large enough to be of any real significance. The Native American population scored sightly higher (but not significantly) in the factor category of auditory senses. These results would lead to the conclusion that overall, there were very few differences in the

individual responses of the two ethnic groups and no measurable differences in the ability to image between Native American and Caucasian subjects.

When considering the limitations of this project, the problem of definition of what exactly is to be considered a Native American presents itself. A technique is needed to specifically define this population in future studies. Many cross-cultural studies have been criticized because only a few heterogeneous individuals from a population have been tested with little or no reference to their status, roles, degree of cultural participation, or, where pertinent, the degree of acculturation. A brief schedule of data might be helpful in future studies to prepare for each Native American subject listing criterion necessary for consideration in participation for a research experiment. It would include whether the subjects live on or off the reservation and would require reservation residence, degree of racial mixture with all subjects being at least one-half tribal affiliation and registered on their tribal rolls, and some knowledge of their tribal language. Inter-tribal differences present variables that in future studies would be accounted for by utilizing data from only one select tribe at a time.

Given the implications of this study's results, the researcher proposes as a next study a replication with several design changes. For example, doing an additional comparison by gender and by focusing more upon selected age groups. Some interesting variations on this study might occur by utilizing specifically nonverbal tests. The present study did rely upon verbal communication and if Spindler's observations of the Menomini are universal with all Native American tribes that "few are given to verbosity," then perhaps other techniques of thought might more

accurately measure imagery abilities. The utilization of free form or guided imagery activities at structured periods of the test could possibly best be measured by a questionnaire or tool designed to detect detail in a variety of areas pertinent to drawings. At the present time this measurement device has not been designed but it may challenge research oriented art therapists to develop and standardize a tool that would be useful in this area of study.

Current projects are being designed to achieve the goal of medical and psychological treatment in Indian populations by complementing--not replacing--existing programs. Earlier medical approaches had been adopted partly on the assumption that Indian life would gradually and inexorably be absorbed into the American cultural mainstream. However, in view of the current resurgence of cultural self-awareness among Indian groups, this rationale is no longer tenable. A new conception of the relationship between Indian and Western health systems must be sought. Perhaps by recognizing some of these cultural differences, maintaining a respect for them, by incorporating Native American traditional practices with modern medicine or at least making sure that a choice is available, some of the problems can be resolved (Marsella, 1981).

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APPENDICES

APPENDIX A

Thematic Apperception Test (Card #16): Comparative Measures of Imagination and Creativity between Native American and Caucasian Adolescent Subjects

The Murray TAT contains 31 pictures, 11 of which are for persons over 14 years of age (numbers 1, 2, 4, 5, 10, 11, 13, 14, 15, 19, 20). There are seven "parallel" pictures for adults and children from 7 to 14 years (numbers 3, 6, 7, 8, 9, 17, 18) using BM (boy/male) card designations for males and GF (girl/female) card designations for females. These paired cards do not constitute equivalent stimuli. There are two additional adult cards (12M, 12F), one card for children of either sex (12BG), one for male children (13B), one card for female children (13G), and a blank card (16) for all assessees. The pictures are intended to be a comprehensive array of life settings, although no systematic card selection procedures are used. Cards 1 through 10 compose an "everyday" series with relatively less ambiguity, and cards 11 through 20 are designed to be more "unusual, dramatic, and bizarre." The card used for comparison in this study (16) is the "blank card" and is of extreme value with verbally gifted subjects, who may really let loose and project freely. If a subject has given previous indications that he has difficulty in expressing fantasy material, however, the blank card is often of no value. The instructions here are first to imagine a picture and then tell a story about it, producing something like superprojection.

Stories told to pictures represent a symptomatic by-product of the interaction of individual personality and the stimulation represented by the pictures. Any effort to interpret responses must thus have a firm

base in the psychodynamic principles of personality. "Psychodynamic" relates to the forces of the mind, in the sense that ideas and impulses are charged with emotions, to which the general expression of "psychic energy" is given. Similarly, the interpretation must also be closely attuned to the realities of the stimulating circumstances.

APPENDIX B

Perfectly clear and as vivid as the actual experience.
Very clear and comparable in vividness to the actual experience.
Moderately clear and vivid.
Not clear or vivid, but recognizable.
Vague and dim.
So vague and dim as to be hardly discernable.
No image present at all.

	Visual						Sensory					Emotional		
ual gery	Outline, shape and size	Color	Form, Feature	Distance Location	Light	Movement	Auditory (hearing) Senses	Cutaneous Skin	Gustatory (Taste)	Olfactory (Smell	Organic	Feelings of Relation	Feelings of Effort	Personal Feelings
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1.														
2.														
3.														
4.														
5.														
6.														
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