

THE UNIVERSITY OF MANITOBA

ETHNIC DISCRIMINATION
IN THE PSYCHOLOGICAL ASSESSMENT OF PROJECTIVE
DRAWINGS

BY

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ABSTRACT

This thesis examined the effect of labelling projective drawings "Cree" and "EuroCanadian" on psychologists' clinical assessment of emotional adjustment. A total of 30 psychologists scored the drawings of 16 human figure drawings done by 14-year-old children from rural Manitoba. Eight children from EuroCanadian backgrounds completed the Draw-A-Person test twice. First-drawn and second-drawn drawings were equally distributed into two groups labelled "Cree" and "EuroCanadian". The scores given to these two groups were statistically compared. The results of the study found that there was no statistically significant difference in the mean scores of the two groups. The implications of these findings to clinical practise were discussed.

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CHAPTER ONE

STATEMENT OF THE PROBLEM

THE PROBLEM

Projective drawing tests are difficult to assess as empirical studies have not as yet provided clearly defined reliable scoring criteria. Consequently, clinicians assess children's drawings impressionistically. The subjective nature of this type of assessment leaves it particularly vulnerable to error. Racial discrimination may be among the most important, systematic sources of error.

The Draw-A-Person Test (DAP) is among the most popular projective psychological tests used by psychologists. The purpose of this study was to explore the possibility that psychologists discriminate between Euro-Canadians and Cree children in their assessment of the DAP.

SIGNIFICANCE OF THE STUDY

The reliability and validity of psychological assessments is crucial to programming and clinical intervention. Treatment and placement decisions for children are determined in large part on the basis of psychological testing. Test error and unreliability must be exposed.

On the basis of the research that has been conducted using the DAP, the popularity of the test does not appear warranted. One possible source of unreliability is the subjective manner in which drawings are assessed. This problem in turn leaves it particularly vulnerable to ethnic discrimination on the part of the psychologist. This vulnerability was seen as cause for concern for patients who may be discriminated against. It was also seen as a possible method of measuring the degree of discrimination. In this study, the procedure of scoring the DAP was used as a projective technique for the assessment of discrimination. Given the results of this study, the effectiveness of this technique remains unclear. However, as a beginning investigation of the problem, a study of ethnic discrimination and its effect on the assessment of the DAP appeared to be a justifiable topic.

METHODOLOGY

The thesis was undertaken as an empirical study involving 30 psychologists' assessment of the drawings of eight Manitoba Grade-Eight students who described their ethnic background as European. Each student completed the DAP twice. First and second-drawn drawings were equally distributed into two groups described to the psychologists as "Cree" and "EuroCanadian". Statistical analyses of differences in the psychologists' ratings of the two groups were computed and the implications of the findings discussed.

LIMITATIONS

The following limitations of this study are acknowledged:

1. As the drawings used in the study did not represent a normative group in comparison to distinct clinical groups, it was not possible to state what constituted a "correct" assessment by the psychologist.
2. Ethnic discrimination in the assessment of psychological tests was not measured directly as the psychologists in the

study did not interact with real Cree children. Measured was the effect of labelling a drawing. Therefore, ethnic discrimination was measured only implicitly.

3. Comparisons were made between psychologists' assessments of drawings labelled "Cree" and "EuroCanadian". Conclusions drawn from this research are therefore limited to these two groups.

INTRODUCTION TO THE STUDY

A projective technique is a procedure for determining a person's motivations, attitudes, and dynamic traits by observing his responses to a relatively unstructured or vague situation. The test stimuli are usually ambiguous and the hypothesis is that a person's response to these may reveal his particular mood, or enduring aspects of his personality of which he may or may not be aware.

It should be understood that the term "projection" used in connection with projective tests is somewhat different from the concept of projection as a defence mechanism. Freud's (1911) use of projection as a mechanism of defence entailed the suppression of unacceptable impulses: "an internal perception is suppressed, and its content, after undergoing a certain degree of distortion, enters

consciousness in the form of an external perception" (p.66)

Freud's theory of projection did not, however, necessarily entail suppression: "projection was not created for the purpose of defence, it also occurs where there is no conflict" (p.64.) In this broader sense, projection is the primary psychological mechanism involved in projective techniques. It is a primitive psychological mechanism in which "internal perceptions of emotional and thought processes can be projected outwards in the same way as sense perceptions; they are employed thus for building up the external world, though they should by rights remain part of the internal world" (p.64). From this we see that projection, as a mechanism of defence, is the exception and not the rule. Freud's concept of projection is important both in normal and in abnormal development.

The concept of projection as it is used in projective procedures is that of a primary, non-defensive mechanism. In this, the psychological constitution of the subject is rendered from his or her responses or creations as prompted by ambiguous stimuli (Rappaport, Gill, & Schafer, 1970). It is assumed that a subject, confronted with ambiguous stimuli, feels pressured to organize and interpret what is perceived into a meaningful whole. To facilitate this organization, the subject must provide information which is not a part of the stimuli. This information is seen as a product of the individual's characteristic thought processes, conflicts, and anxieties.

Projective techniques constitute a global approach to personality appraisal: "projective techniques come nearer to grasping "the whole person at once than any other testing technique" (Cronbach,1949, p.433). The abstract nature of the tasks employed in projective techniques are regarded by proponents as particularly effective because "the subject does not know what kind of inferences the experimenter intends to make" (White,1944, p.433). Further, it is this quality which makes the technique effective in revealing latent or unconscious thoughts, feelings, or aspects of the personality.

The global quality of such techniques is evident in the fact that they have been concerned in the past not only with emotional factors, but with the assessment of psychomotor, intellectual, and attitude factors as well (Campbell,1950).

HISTORY OF PROJECTIVE TECHNIQUES

The principle of projection was first described in an article by Freud (1896) entitled "The justification for detaching from neurasthenia a particular syndrome: the anxiety neurosis". The development of the free association technique, in which projection played a central role, was outlined by Freud (1900). The book describes the technique of dream analysis in which "a word is spoken and the

subject speaks another word as quickly as possible...the analysand is asked to begin with some item in a dream, or remark he has made, and relate whatever comes to mind" (English & English, 1957, p.257). The free association method constituted the first projective technique, though its application and scoring had not been standardized.

At the Burghozli psychiatric clinic in Zurich, Switzerland, Bleuler and Jung worked to join "word association techniques", long fashionable among academic psychologists in the study of cognitive functions (Cattell, 1887; Galton, 1879), with the psychoanalytic concepts developed by Freud. Kent and Rosanoff (1910a, 1910b) compared the responses of normal and abnormal subjects to the word association test and demonstrated that the responses of the two groups were quite different. These results were used as the first standardization tables against which the responses of other subjects could be compared. Jung (1918) tested the principles of the word association technique by using the standardization of the word association test as a measure of unconscious conflicts. The empirical data collected in these early studies, supported by psychoanalytic theory, resulted in a dramatic increase in the popularity of projective measures and the frequency of their application in clinical settings. These developments were nonetheless in dramatic contrast to the psychometric tradition emerging from within academic psychology.

Binet, Thurstone, Terman, and Thorndike introduced, at about the same time, questionnaires, rating scales, inventories, standardized intelligence tests and social attitude scales that were developed through rigorous experimental and quasi-experimental trials. Many of these devices were to be applied in a modified form to the assessment of personality and emotional and social factors. This proved to be a very unexacting task and the early attempts to standardize projective techniques were harshly criticized by those working in the psychometric, empirical tradition. Proponents of projective techniques, despite the frequent and very trenchant criticisms from academic psychology, maintained that the tests were superior to other psychometric measures in that they dealt with more significant areas of behavior (i.e., the personality "as a whole"). This conviction gave rise to the evolution of a variety of projective techniques.

Association techniques used by the early academic psychologists to measure intelligence could not be used to assess personality until psychoanalysis could provide a theoretical basis for this. For example, Whipple (1910) reported a number of studies which included inkblots as stimulus material in the assessment of cognitive functions. It was not until considerably later, however, that Hermann Rorschach applied inkblots for the first time to personality assessment. Subsequent to the publication of "Psychodiagnostik" (1921/1942), in which standard ink

blots, administration, and scoring procedures were outlined, the inkblot test achieved enormous popularity. Its interpretation was in keeping with the principles of psychoanalysis. Rorshach had in fact been introduced to psychoanalysis in the early years of the movement in his work at the Burghozli clinic (Ellenbeiger, 1959). The psychoanalytic interpretation of the Rorshach inkblot test today remains the most popular (Klopfer, 1955; Schafer, 1954).

In a number of early studies, pictures served as the stimulus material in projective techniques (Brittain, 1907; Clark, 1926; Libby, 1908; and Schwartz, 1932). These studies are generally regarded as the forerunners of the Thematic Apperception Test developed by Morgan and Murray (1935). The test requires that the subject respond to a set of pictures by creating stories about what is taking, or has taken, place in each of them. Murray's test was rapidly applied to clinical settings. It was in fact Murray who coined the phrase "projection test" which first appeared in "Explorations in Personality" (Murray, 1938).

Another popular projective technique that developed during this period was the sentence completion test. The test was first used as a measure of emotional factors by Tendler (1930). The sentence completion test assessed "trends, fixed attitudes, attachments to persons, conflicting desires, satisfactions and annoyances" (p. 122).

CHAPTER TWO

LITERATURE REVIEW

The relationship between art and insanity has been observed throughout history in the works of the early Greeks, Borsch, Van Gogh, and more recently Salvador Dali. One of the first therapists to note the clinical significance of symbolization in art, however, was a 19th century French psychiatrist, Max Simon, who observed that his institutionalized patients often created obscene drawings. It was not until the advent of psychoanalysis, however, that there was any substantial attempt made to clarify the mechanisms by which symbolization in art occurred (Naumberg, 1955).

The early analysts developed a broad range of literature dealing with the symbolic representations of culture, much of it focusing on art. However, the application of these sociological, cultural, and anthropological insights to the clinical interpretation of drawings does not have any clear genesis.

Florence Goodenough (1926) developed her Draw-A-Figure test to tap intellectual factors, though she was quite aware that personality factors were also being measured. The attempt to standardize these observations appeared too difficult and Goodenough confined herself to "casual"

remarks. In this vein, Freud (1933) observed that his patients were often able to draw dreams that they were otherwise unable to express verbally. His analysis of these drawings, however, did not entail assessment of the drawings as such, but simply the dreams which they represented.

Machover's (1949) Figure Drawing Technique was developed as a result of her work with Goodenough's instrument, but focused primarily on aspects of personality functioning. Bender (1952) also observed that children's human figure drawings may reveal psychopathology as well as perceptual-motor dysfunction and organic brain damage. Hanvek (1953) likewise asserted that children's human figure drawings revealed emotional factors.

Machover (1949) developed a number of interpretative guidelines for human figure drawings on the theoretical premise that the subject is creating an artistic rendition of his or her own body image. A number of studies have examined different postulates of Machover's theory. For example, Swensen (1968) conducted an extensive survey of reported research on the Draw-A-Person (DAP) test, and concluded that the hypotheses concerning the instrument have generally not been very well supported by empirical data. More recently, Machover's body image theory was not borne out in the DAP's of deaf children in their detailing of the ear and mouth (Davis and Hoopes, 1975).

A number of drawing techniques have developed from the

early uses of human figure drawings. The more recent of these include the Loney Draw-a-Car Test, and the Kinetic Family Drawing Test.

The Loney Draw-A-Car Test (Loney, 1970) was introduced experimentally as a projective measure to discriminate between enuretic, encopretic, and control groups. A blind psychoanalytic interpretation was shown to be very effective in discriminating the three groups and in isolating test responses related to the psychological functioning of the clinical group. Subsequently, Parish (1976) provided supportive empirical validation of the method as a means of effectively revealing a child's psychological functioning.

The Kinetic Family Drawing Test (KFD) was first introduced by Burns and Kaufman (1970) as a measure of children's perception of themselves, their families, and the dynamics of their family interactions. It was understood that the role of the family was important in the etiology of childhood disorders. The test requires that a child draw a picture of everyone in his family, including himself. The test requires that each figure is depicted doing something. From the actions of the figures, and their interactions with each other, the dynamics of the family are assessed.

Using the KFD, McPhee and Wagner (1976) compared 102 emotionally disturbed children to a normative sample from a public school, on the prevalence of drawing characteristics

grouped under the concept of "style". They hypothesized that style, theoretically postulated by Burns and Kaufman as a measure of defensiveness, would be more prevalent in the clinical group. This was not borne out by the data. However, the authors concluded that "final judgement cannot be made concerning the diagnostic value of either KFD style or the technique as a whole, unless a more exhaustive study is undertaken" (p.490).

Other studies have drawn "admittedly meagre but generally supportive (conclusions) on the KFD approach to personality measures" (Reynold,1978). The earlier studies to which Reynold refers, however, include a paper restricted to the development of quantitative procedures for the test (Myers,1975), and a study on the use of the KFD with perceptual-motor delays which does not deal specifically with emotional problems (Raskin, L.M., and Pitcher-Baker, 1977). Further, Reynold's paper consists of a quick-scoring guide for which neither theoretical nor empirical support is provided. To date, it would seem that experimental support for the clinical application of the KFD is lacking.

The KFD is a modified version of the Family Drawing Test (Hulse,1951) that includes a kinetic factor. In his original paper, Hulse reported on family drawings by emotionally disturbed children, and described the technique which developed from requesting these drawings from his patients. In a later study Hulse (1952) analyzed a "large"

number of drawings from "very sick patients" and compared these with 102 drawings by children "who were not clinically ill". Hulse applied "gestalt" analysis of the drawings in which details were analyzed "only to support and substantiate the impression which the total drawing conveys to use" (p.67). While some interesting associations were made between drawing responses and aspects of personality dysfunction, Hulse's study was not blind to other clinical information. Further, the gestalt assessment criteria could not be specified beforehand, so that no specific hypothesis could be generated with respect to the responses of the clinical and control groups. Given these inadequacies, Hulse's data cannot be interpreted.

In a later study, Reznikoff and Reznikoff (1955) attempted to "deal more directly with some of the individual details or component aspects of family representations" (p.167). In this study, the family drawings of 100 second grade children were cross-classified according to sex, race, and economic status. Differences were found between Negro and white children: The former much more frequently omitted fingers from their drawings and excluded siblings from the family constellation. Lower income families significantly more often omitted the mother in their drawings. Conclusions about the significance of these findings to clinical practice were not presented.

Hulse's insistence on a gestalt analysis was not conducive to empirical analysis of his test. Perhaps it

was for this reason that a hiatus in the literature with respect to the family drawing technique appears to have lasted until the advent of the KFD in 1970.

A good number of less widely known projective drawing tests have been developed: Kinget's Drawing Completion Test (1952); the Nude Figure Test (Saunders and Reyher, 1974); the Draw a "Mummy" Test (Newsome and Newsome, 1977); and Harrowe's Unpleasant Concept Test (Harrower, 1969)-among others. These techniques were all at least inspired by, if not founded on, the two principle projective drawing techniques used in clinical and school psychology: the DAP and the House-Tree-Person. Both are among the most commonly used diagnostic instruments (Lubin, Wallis, and Paine, 1971).

The development of the HTP test as a measure of emotional factors originated with its use as a measure of intelligence (Buck, 1948). At about the same time, Machover (1949) was working in New York using the human figure drawing technique (Goodenough, 1926) as a personality measure. Buck included the house and tree in his technique in an attempt to yield a broader range of responses. Describing his new instrument, Buck stated that it "is a technique designed to aid the clinician in obtaining information concerning an individual's sensitivity, maturity, flexibility, efficiency, degree of personality integration, and interaction with the environment, specifically and generally" (Buck, 1948, p.1). The HTP is a

very unstructured test which is, as such, very conducive to projection, and which "may be understood through a sensitive reading" as a measure of the patient's "inner world" (Hammer,1968). The instrument reveals one's personality weaknesses and strengths, and the capacity to which one is able to resolve psychodynamic conflicts.

The first standardization study with the HTP compared its use as a measure of intelligence. A total of 120 carefully selected subjects were placed into 6 intelligence categories: imbecile, moron, borderline, dull average, average, and above average- "in accordance with the complete clinical picture presented by each, following careful psychological examinations and short periods of observation" (Buck,1948, p.7). Buck found significant differences in the drawings of subjects from different categories and he devised general dimensions of analysis that best facilitated discrimination. On the basis of the clinical histories he collected of each subject, Buck (1948)attempted to identify and evaluate those items which did not appear to differentiate intelligence per se, but which differentiated drawings of normals from those who were "maladjusted, psychopathic, psychoneurotic, prepsychotic, or psychotic" (p.13). Analyzing the HTP drawings of 150 hospital and mental health clinic patients from throughout Virginia, Buck concluded that "definitely the HTP productions of subjects with personality disorders differ in many respects from drawings produced by subjects

who were not maladjusted" (p.14). Later, Buck analyzed the drawings of another 500 patients and came to the same conclusion.

Buck's early standardization studies were poorly controlled and inadequately described. We do not know which standardized intelligence tests were used, or what was entailed in a "careful psychological examination". No attempt was made to explain why some items do not appear to measure intelligence per se, and no statistical analyses were applied to help make such a determination. Despite these rather marked inadequacies, Buck did manage to generate a number of hypotheses based on minimal but supportive evidence that the HTP does tap the subject's intellectual and emotional functioning.

With the advent of the Weschler scale in 1948, Buck's initial study had hoped to "salvage the HTP drawing test from his other intellect-tapping subtests, and develop it into a projective technique" (Hammer, 1968, p.367). Hammer (1955) was to assist Buck in his effort by developing a guide to qualitative research with the HTP that outlined the clinical signs which purportedly indicated the subject's defences, needs, strengths, weaknesses, and psychiatric symptoms. This guide would help to clarify, for future researchers, the various hypotheses relevant to the HTP.

The general guidelines to interpretation provided by Buck and Hammer, and (with respect to the DAP) Machover,

generated considerable research. In a review of the literature from 1948 to 1962, 410 papers concerned themselves with children's drawings. Of these, however, only 20 dealt with attempts to establish normative data for any aspect of the HTP (Rappaport, 1966). The paucity of basic validity studies was in striking contrast to the growing popularity of projective drawing techniques. Most clinicians were forced to rely very heavily on their intuition in the assessment of drawings.

A significant paper of the early period by Bieliauskas and Moens (1961) correlated HTP IQs devised by Buck (1948), standardized only on adults, with IQs obtained on 23 second-grade and 40 fifth-grade pupils. It was concluded that the Buck scoring system needed considerable modification for purposes of individual prediction.

A number of studies pointed to the effect of developmental factors on different aspects of the HTP (Auspcle, 1958; Bieliauskas and Pemington (1954); Duffy (1953); Dunn, (1955); Machover, (1953); Markham, (1954); Nel and Esterhuzisen, (1958).

A study by Ansbacher (1952) concluded that the human figure drawing was more highly correlated with personality than intellectual factors. Others found the human figure drawing aspect of the test to be an adequate measure of intelligence only in children who were normal or subnormal in intellectual ability (Fisher & Fisher, 1950). Still others found the test to be an effective projective measure

only with subjects with higher IQs (Markham, 1954). In 1966 Rappaport "et al" conducted an extensive study with 1,066 elementary school children from Philadelphia, to evaluate systematically the relationship between normal development and HTP characteristics. Children were selected who (1) had no physical defects, (2) were within a Kuhlman-Anderson IQ range of 100 to 109, or 120 to 129, (3) had no emotional problems, (4) had a preferred hand, (5) were Caucasian, and (6) were in an age-appropriate grade. The HTP was scored for the presence or absence of 821 HTP items taken from the scoring systems devised by Buck (1948), Goodenough (1926), and others. In addition, 12 quantitative measures were calculated using different scoring systems. Conclusions of the study were highly critical of the formal HTP scoring system as a measure of development: "relatively few of all the 821 HTP items studied were significantly related solely to development" (p.29). All the items that were shown to be significantly related to development were associated with the person drawings. Accordingly, "items associated with the drawings of the house and tree were discarded" (p.28). Rappaport suggests that future "validity and reliability studies would be more meaningfully applied to the DAP test than to the HTP" (p.29).

Meyer, Brown, and Levine (1955) found that the HTP discriminated greater conflict in subjects before and after surgery. The site of a patient's operation was indicated

in their human figure drawings by excessive shading, tremulous line treatment, or avoidance. Subjects who lost a limb or sense organ projected this loss on the same side in the drawn human figures, trees, and house. If a patient's right arm had been operated on, for example, his or her tree drawing might have a sawed off, broken off, or wilted limb on the right side. More recently, Bluestone (1978) provided case studies of seriously maladjusted individuals who perceive their tree drawings as dead. The author asserts that such interpretations are related to traumatization of the subject.

Marzolf and Kirchner (1972) examined HTP drawings using 108 drawing characteristics and compared these data with the Sixteen Personality Factor Questionnaire (16PF) scores of 760 college women and men. Low but consistent correlations between HTP characteristics and measured personality traits were found. The meaning of an HTP characteristic was found to vary with sex quite significantly, and such meaning was frequently found to be associated with a personality trait in a non-linear fashion.

Fellous and Cerbus (1969) examined differences in the responses of 7-14 year old children to the Frank Drawing Completion Test (DCT) and the HTP, as a function of developmental change in sexual identification. On the HTP, the sex of the first person drawn was significant at all ages. Other sexual indicators- placement on the page,

inclusion of a chimney, and type of tree- did not yield significant results. Puberty was found to be the age of strongest sexual identification and greatest awareness of sexual characteristics.

Englehart (1975) obtained the drawings of 180 boys, half of whom were from public schools and half from a neuropsychiatric centre. Children 10, 11, and 12 years old were equally represented in the clinical and control groups. The range of IQs in both categories was 90 to 120. The absence or presence of 17 characteristics in all 3 drawings as-a-whole, and 26 items in the drawing of a man, were noted. Nine psychologists made clinical judgements of a random sample of drawings for use as a criterion model. Discriminant functions were derived and "predicted" and actual classifications were compared. The clinical judgements and statistical findings were quite similar. Seven items for the HTP and 9 for the drawing of a man resulted in 87.5% and 84.2% correct classifications, respectively.

Eyal and Lindgren (1977) administered the HTP as a measure of the intelligence and creativity of 23 male and 27 female undergraduates and 27 boys and 38 girls in grades 3-8. The drawings were given independent scorings by 3 judges who (1) assessed the drawings impressionistically on intelligence, using a forced distribution method; or (2) rated them impressionistically on creativity, using a forced distribution method; (3) computed intelligence

scores according to the HTP manual. The Basic Word Vocabulary Test was administered to all subjects as a measure of verbal ability. The 3 HTP scores were found to be positively correlated with vocabulary test scores for female undergraduates, as were the impressionistically derived HTP scores for grade-school girls. This relationship did not achieve statistical significance for the male students at either level. It was suggested that the HTP has potential as a test of non-verbal mental ability when scored using a global, impressionistic method.

Englehart (1980) examined the use of the HTPT (2 tree drawings were included) as a means of discriminating 180 males, half of whom had been diagnosed as emotionally disturbed and half of whom were controls from a local school in Paris, France. The groups were matched on intelligence. Assessment criteria were empirically developed in terms of inclusion of various details. The results of the study showed that the control group's drawings were more homogeneous, integrated and colorful. A blind, impressionistic assessment was found to be effective in discriminating control and clinical group children.

Blain (1981) showed that certain HTP test items can, taken individually, discriminate between abused and non-abused disturbed children. Items taken collectively were found to discriminate between abused, control, and disturbed children.

Wilbourn (1982) studied the HTP drawings of 60 male,

hospitalized patients with a mean age of 48.6 years. Subjects were grouped into four categories on the basis of their psychiatric diagnosis: paranoid schizophrenia, affective disorder, non-paranoid schizophrenic, and controls. Drawings were assessed for the presence and absence of non-essential details, total number of details, and form level. Wilbourn concluded that "form level ratings are a valid means of evaluating HTP drawings for diagnostic purposes". The assessment of form level required the examiner to follow only very general guidelines. For example, the size of the head was rated on a scale from 0-10 as specified by Fields (1975). As such, an assessment of form level constituted a simply structured impressionistic technique. Wilbourn judged this approach to be superior to more highly structured systems. As Ries (1966) observed: "Despite attempts to develop satisfactory methods of objectively or quantifiably analyzing projective drawings, molar and subjective means remain superior" (p.66). This opinion expresses what appears to be a fairly strong agreement among critical researchers. Until a more rigorous formal scoring system is devised, intuition would appear to be as good a criterion for assessing drawings as any other.

In contrast to the HTP, there are many studies which evaluate the reliability and validity of the DAP. Of these, many attempt to assess the various hypotheses propounded by Machover (1949), while others assess the

effectiveness of the test when evaluated as-a-whole, using diagnostic sorting tasks. The older research has been reviewed extensively in articles by Swenson (1957,1968) and Roback (1968). While Swenson concluded that the DAP is invalid as a diagnostic instrument, Roback maintained that it is effective when assessed impressionistically, and when it is used as simply one component in a battery of psychological tests. Roback suggested that a multitude of variables were being assessed in a global, impressionistic evaluation of the DAP, and that future research should attempt to determine and assess these collectively.

A number of studies have concluded that diagnosis of emotional disturbance using the DAP is invalid (Adler, 1970; Cauthen, Sandman, Kilpatrick, and Deabler, 1969; Wanderer, 1969; Watson, 1967a).

Adler (1970) evaluated the human figure drawings of short-term psychiatric inpatients: 149 schizophrenics, 36 with character disorders, 9 with acute brain syndrome, and 22 neurotics. A list of scored items was derived from a number of previous studies and papers (Buck, 1964; Hammer, 1953; Jolles, 1952; Machover, 1949; and Urban, 1963). Tests of reliability and a factor analysis rejected many items and derived from those remaining a single cognitive variable that accounted for over 50% of the variance. This factor Adler called the "maturity of body image concept". Adler concluded that "many so-called indicators of pathology are actually a function of immaturity", and that

consequently, "one should be very hesitant about inferring psychopathology between the 4 clinical groups" (P.432).

In a similar study Rie et al. (1966) stated that none of the 80 clinical signs derived from the literature was able to discriminate between reactive and process schizophrenics, while only 3 signs distinguished normal and schizophrenic subjects. Cauthen et al. (1969) concluded that subjects diagnosed as schizophrenics, using the MMPI, are indistinguishable from nonpatients on the basis of their DAP tests.

Other studies have found the DAP to be effective at discriminating between normals and various clinical groups (Albee and Hamlin, 1950; Burton and Sjoberg, 1964; and Koppitz, 1966 a,b,c; Hiler and Nesvig, 1965; Reznidoff and Resnikoff, 1956). More recently, Lombardi (1979) demonstrated the effective use of the DAP as an indicator of paranoid schizophrenia, and Perna (1976) effectively discriminated between schizophrenic and non-schizophrenic hospital patients, using the DAP.

Another research technique which purports to test the validity of the DAP as a clinical instrument compares the assessments of experienced and naive judges. Of all the studies found in the literature, none conclude that experienced judges have diagnostic superiority over naive judges (Schaeffer, 1964; Wanderer, 1969; Watson, 1967b, Schmidt and McGowan, 1962; Fisher and Fisher, 1950; Albee and Hamlin, 1949; Cressen, 1965; Burton and Sjoberg, 1964;

Chapman and Chapman, 1967; Goldberg, 1968; Hiler and Nesvig, 1965). Some that attempt to explain the apparent irrelevencies of training have noted the effect of the artistic quality of a drawing on the rater. Adler (1970) and Nichols and Strumpfer (1962) have concluded that the overall artistic quality of a human figure drawing is the single most important factor which accounts for the variance in scoring. Cressen (1975) showed the correlation between low overall artistic quality to the clinical judgement of maladjustment. He concluded that the artistic quality of human figure drawings may constitute the biggest source of error in their assessment.

Only a few studies have attempted to relate DAP scores to personality measures. Lewinsohn and May (1963) and Strumpfer (1962) conducted two studies which found no relationship between personality type and the assessment of the subject's human figure drawings. Lewinsohn (1965) found no statistically significant relationship among specific traits of psychopathology, individual personality traits and improvement in clinical condition, to human figure drawings.

Reznikoff and Nicholas (1958) studied the human figure drawings of 31 paranoid and 30 nonparanoid hospital patients with regard to the absence or presence of 24 clinical characteristics compiled by Machover (1949), Holzberg and Wexler (1950), and clinical experience. Of these, only heavy line emphasis and particular emphasis on

the outline of the eyes occurred significantly more often in the drawings of paranoid patients. It was suggested that use of specific indicators as a measure of paranoia was unreliable.

Falk (1981) was highly critical of previous studies that have concluded that diagnosis of emotional disturbance on the basis of the DAP is invalid. He points out that the DAP is probably most clinically effective with children, while most studies have focused on adults. Further, he asserts that studies which focus on only particular test characteristics and not the whole drawing "contradict both the theory and application of projective drawing techniques" (p.469). Lastly, Falk asserts that many studies have tested the validity of the DAP in assessing subjects in terms of particular diagnostic categories which are not themselves clearly discernible, clinical entities. It is suggested that clinicians should not attempt to derive a differential diagnosis on the basis of DAP test results, but should use the degree of maladjustment suggested by the drawing as-a-whole, as one indicator in a test battery. To this end, a number of studies have successfully demonstrated the effective use of point scales in reliably differentiating clinical groups using projective drawings (Bieliauskas and Kuhlman, 1976; Hammel, 1953; Wanderer, 1969; Wilbourn, 1982; Perna, 1976).

CONCLUSION

No scoring system has yet been published which has been shown to provide a consistent, clinically valid, and reliable assessment of the DAP. Clinical judgement has proved to be only slightly better than formal scoring systems, though it is clear that the intuitive nature of this type of assessment is equally refined in housewives, art students, and psychologists. Despite the grave cautions of researchers, clinicians continue to apply the DAP as part of a test battery. There does not appear to be an obvious explanation for this phenomenon, save the ease of the test's administration and the promise it holds of allowing the clinician to glean otherwise hidden aspects of the child's personality functioning. However, familiarity with the research literature would strongly militate against this temptation.

The focus of this study is not, however, on the validity and reliability of the the DAP as a measure of children's emotional functioning. Rather, the focus is on psychologists' systematic bias in the scoring of the test.

CHAPTER THREE

CROSS-CULTURAL APPLICATIONS OF PROJECTIVE DRAWINGS

In an early study by Anastasi and Foley (1938), a number of cultural and anthropological reports were reviewed and their results compared to a study of the animal drawings of Indian children of the North Pacific Coast (Boas, 1927; McDermott, 1897; Rouma, 1913). It was noted that the technique and subject matter of the children's drawings reflected particular experiential and cultural factors as opposed to developmental stages and age differences. An Indian child of the North Pacific coast may produce drawings rich in symbolic details "which would be futile to evaluate in terms of norms established elsewhere" (p.374). Their results demonstrated clearly the need to account for cultural factors when assessing drawings.

Another striking example of this phenomenon is offered in a cross-cultural study of a Singhi refugee community in Poona District, India, using the HTP (Barnouw, 1963). In this study approximately 13% of the female subjects drew a human figure from a rear view. According to Buck (1948), drawings depicting a profile or backview indicate a desire to withdraw from others and conceal feelings. It would be extremely rare indeed to find such a high percentage of rear view perspectives in a normative sample of Canadian

drawings. In attempting to explain his results, Barnouw noted that among the Singhi, a girl's attractiveness is determined in large measure by the beauty of her hair. Given this cultural value, depiction of a figure from the rear might be reasonably interpreted not as a sign of withdrawal, but rather vanity, insecurity, or exhibitionism.

A number of studies have employed the human figure drawing test to assess cross-cultural differences in self-concept and psychological adjustment. Henderson and Norman (1969) compared 232 Negro and 466 white children using the DAP test to assess self-image. The black group's drawings were found to be more complete on facial items while the white group's were significantly more complete on arm and finger items. Overall, no significant cultural differences were noted.

Pierce and Jones (1968) studied 70 "culturally deprived" Mexican-American preschool children on their self-perception. Of these, 39 children were provided intensive interpersonal adult supervision with children grouped on a ratio of one-to-four with volunteer mothers. Those remaining were placed in a regular head start program. Comparison of pretest and post test drawings of the two groups showed a significant improvement in children's self-concept and the accuracy of their self-perceptions.

Guggenheim (1967) studied the self-esteem and academic

expectations of 162 6th grade New York elementary school Negro, white, and Spanish-background pupils, using the DAP. Results showed that there were no differences in self-esteem between the racial groups, but that Negro children had a more negative attitude towards school.

Schofield (1978) has used the DAP to assess racial identity acceptance, hypothesizing that the human figure drawings in some sense represent the body image of the person who draws it (Machover, 1949). Kuhlman (1979) replicated Schofield's study using an adolescent sample of black and white Ss and a racially balanced panel of judges who determined the race of the human figure drawings. In both studies, Blacks were found more frequently to draw white figures than white students black figures. These data have been interpreted as indicative of poor racial identity acceptance in black children. The phenomenon might, however, be reasonably explained by the greater numerical prevalence of whites in the general population.

A number of studies have drawn racially discriminating conclusions about black Americans on the basis of their responses to different projective tests. With the Rorschach (Price, 1962; Ames, 1966); with the Thematic Apperception Test (Peterson and Telford, 1930; Lindner, 1962); with the DAP (Vane and Kessler, 1964); and with the HTP (Schofield, 1978; Kuhlman, 1979)- differences in test responses were assumed to indicate inferior psychological adjustment in black Americans. Kuhlman and Bieliauskas

(1976) noted serious methodological errors in the design of previous studies which did not account for differences in intelligence, socioeconomic status, and sex of subjects. Using the HTP, their study demonstrated that when these variables are controlled, differences between the two groups are insignificant.

RATIONALE FOR THE PRESENT STUDY

While many cross-cultural studies employed a blind analysis of the data, others neglected to include this in their design or were, for methodological reasons, unable to do so. In many different types of social research, the risk of racial discrimination affecting the evaluation is low or nil. When a study requires the implementation of an objectively scored mathematics test, for example, the risk of racial discrimination is considerably less than when an examiner must evaluate a very subjectively scored test like the DAP. Kuhlman (1979) appreciated this problem in assessing the racial identity of human figure drawings, and attempted to compensate for racial discrimination by balancing his design so that an equal number of black and white judges assessed the drawings of black and white children. Similarly, Kuhlman and Bieliauskas (1976) ensured that judges were blind to the race of subjects when they assessed black and white children's drawings.

The actual extent to which the psychological assessment of projective drawings is affected by racial discrimination remains unknown. To date, in fact, no studies have addressed this problem.

The purpose of the present study was to explore the possibility that psychologists discriminate between Euro-Canadian and Cree children in their assessment of the DAP.

CHAPTER FOUR

METHODOLOGY

Subjects:

The subjects of this study were 30 school and clinical psychologists working within Manitoba clinics, schools, and hospitals. All of the psychologists used in this study possessed a minimum of a Masters degree as well as clinical certification through the Manitoba School Psychologists Association or the Psychological Association of Manitoba. Only psychologists who stated that they regularly used the DAP in their clinical practise were asked to participate.

Procedure:

The area school psychologist administered the DAP test to a total of 16 grade-eight students from a school in Manitoba. They were asked to "draw-a-person" on an eight by twelve inch blank sheet of paper. On a separate paper, they were asked to record their date of birth, sex, and ethnicity. Children were told to state their ethnicity as determined by their father's or grandfather's country of origin. Where this procedure was not applicable, the

mother's or grandmother's country of origin was substituted.

The students' papers were gathered. Immediately after, the children were then asked to "draw another person, not the same person however, as the first one".

A total of 16 pairs of human figure drawings were gathered. From this group, the researcher selected eight pairs that met the following conditions: 1) within each pair, drawings were dissimilar, and 2) drawings were created by children who identified their ethnic background as European.

These eight pairs were in turn placed into two groups. Each group contained eight first and eight second-drawn pictures. By balancing the number of first and second-drawn pictures in each group, possible practice effects or boredom effects from repetition were taken into account. In theory, because each of the drawings were varied in appearance, clinically significant differences between the two groups were due only to random chance factors.

Group A was labelled "Euro-Canadian" and group B was labelled "Cree" children's drawings. Thirty psychologists scored all 16 drawings on a seven-point scale similar to the one used in a previous study for the same purpose (Hammer, 1953). Step one on the seven-point scale was labelled "well-adjusted", step four "average adjustment", and step seven, "poorly adjusted". The psychologists were

then asked to assess the drawings "blind" to other clinical data. For each drawing the clinician was told only the sex of the subject and their "ethnic background". The psychologists were informed that all the drawings were created by 14 year old children in grade-eight.

Clinicians were asked to score the drawings independently from each other and not to discuss their impressions of the study with anyone else. They were told that the purpose of the study was to determine if there exists any systematic differences in Cree children's drawings. The true intent of the study was not revealed until after the data was collected from all of the participating psychologists.

Statistical Analyses

Groups A and B were compared statistically. For each psychologist, mean group A and group B scores were computed. Using a two-tailed t-test, a comparison of differences between the mean scores for groups A and B was computed across 30 psychologists. A two-tailed was used because there was no justification for hypothesizing the kind of ethnic discrimination that might occur.

Statistical significance was set at the .05 level because of the relatively small sample size, and because it was seen to constitute an acceptable balance of risks: the

risk of accepting a null hypothesis that overlooks a real difference against rejecting a null hypothesis and accepting as real a difference due to chance.

As a measure of reliability, a product-moment correlation was computed between the scores given to all 1st-drawn and all 2nd-drawn drawings.

CHAPTER FIVE

RESULTS, CONCLUSIONS, AND IMPLICATIONS

In previous chapters, a full presentation of previous psychological research related to the problem addressed in this study was made. In this chapter, the results and the conclusions of this study are presented with a statement of the possible implications these have for clinical and school psychologists.

RESULTS

A statistical comparison of the psychologists' scoring of the "Cree" (group A) and "EuroCanadian" (group B) students' drawings was not significant at the .05 level of significance. The mean score for group A was 3.525 and the mean score for group B was 3.554, a difference of .0289998. The standard deviation for group A was .541413 while for group B it was .495719, a difference of .045694. This difference indicates that the psychologists were more varied in their scoring of "Cree" children's drawings than "EuroCanadian" children's drawings, though not significantly so.

A comparison of 240 1st-drawn and 240 2nd-drawn pictures yielded a Pearson Product-Moment Correlation of .414. This correlation was significant at the .05 level of significance.

Of 480 scores, there was only one instance in which a drawing was given a score of seven and only eight instances in which a drawing was given a score of one. The distribution of scores was not normal but narrowly scattered about the mean test score of four. The kurtosis of the curve of distribution was .423.

CONCLUSIONS

Two possible conclusions may be drawn from the results of this study. These will be discussed separately:

- 1) There is no significant difference in psychologists' assessment of "Cree" and "EuroCanadian" children's responses to the DAP. This suggests that there exists no ethnic discrimination. However, it is possible that the technique employed in this study was not sensitive to ethnic discrimination.

In this study there were no real Cree or EuroCanadian children examined by psychologists, only what the psychologists understood to be their drawings. What was

actually measured was the effect of labelling drawings. Only by implication could a significant difference in the effect of labelling have been attributed to ethnic discrimination. Conversely, the statistically insignificant results of this study only imply that psychologists do not discriminate between ethnic groups in their assessment of the DAP.

Psychologists probably do not discriminate between ethnic groups in their scoring of other psychological tests, most of which have a more highly structured scoring system than the DAP. If such tendencies were prevalent they would probably have been manifest in the "intuitive" scoring of the DAP. However, substantiating this theory requires additional research.

As only the labels "Cree" and "EuroCanadian" were used in this study, it is possible that other ethnic labels would have yielded significantly different results. Conclusions drawn on the basis of this small sample of labels must be scrutinized with caution. Nonetheless, the strength of the results of this study would suggest that ethnicity "per se" is not a significantly influential factor in the scoring of the DAP.

2) Psychologists' scoring of the DAP tended to be clustered about the "middle" score.

The sample drawings used in this study were taken from

grade-eight students none of whom were known to suffer psychological problems. In the researcher's judgement, however, the drawings they created did indicate a number of psychological problems (Machover, 1951; Buck, 1948), though these were not assessed formally in this study. The "conservative" tendency among psychologists to score drawings "average" appears suspicious, given the number of emotional indicators present in the drawings. However, this suspicion would have implications only if the psychologists had applied the clinical indicators devised by Machover and Buck in their "intuitive" scoring of the drawings. As these scoring systems have not been generally supported by validity and reliability studies, psychologists may have rejected these scoring criteria. Consequently, psychologists may judge a drawing to be abnormal only when it is a very unusual rendition. If psychologists are familiar with this research, it is quite possible that they ignore the more subtle (if "classical") characteristics of drawings that were once thought to indicate psychopathology.

IMPLICATIONS

The implications of these findings are quite positive for Manitoba schools. Psychologists do not appear to

discriminate between ethnic groups in their assessment of children on the basis of the DAP. It is reasonable to assume that they are even less likely to discriminate in their assessment of students when using other more highly-structured psychological tests. Further, psychologists appear to be exercising caution in their scoring of the DAP, perhaps realizing the poor reliability and validity of the test.

However, the positive results in this study are offset by the very poor review of the DAP that has been generated by a lengthy and inclusive survey of research. It is clear that this research precludes the application of this technique to the treatment of children in clinical settings. The current popularity of the DAP, despite what appears to be a healthy distrust of the instrument by psychologists, is cause for concern. Presumably, decisions are being made on the basis of children's DAP results. There is simply no reliable evidence that this practise is warranted. Despite the findings of this study with respect to a lack of ethnic discrimination, it is suggested by this researcher that the DAP should not be used as a clinical test with children.

Suggestions for future research on ethnicity should not use the DAP unless, as part of the design of experiment, psychologists are required to examine real children. This approach would forego the necessity of drawing conclusions about ethnic discrimination on the

basis of labelling. Further, it would be more effective to assess discrimination as a function of psychologists' overall assessment of children, rather than on the basis of their scoring of one test. This would prove to be a very difficult research problem, however, as discrimination might be established only if the researcher could compare psychologists' assessments to what he knows to be the subject's true test performance or mental status. And, as we well know, truth of that sort is very elusive.

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APPENDICES

Appendix A

Purpose as presented to participating psychologists:

The Purpose of this study is to determine some of the clinically significant factors psychologists consider in their assessment of Cree childrens' drawings. To this end, 30 psychologists will assess the drawings of eight Cree and eight EuroCanadian students. Their assessments will consist of a simple rating of general emotional adjustment on a seven-point Likert scale. Clinicians are then asked to note one or more clinically significant aspects of the drawings that influenced their assessment. Using a tree drawing for example, a clinician might note that a broken branch on the right side of the tree suggest that the subject had been traumatized at some time on the right side of his body.

Response booklets have been provided. The first drawing corresponds to subject one in the response booklet, the second drawing with subject two, etc.

It should be noted that all the drawings were done by age-appropriate grade eight students from Manitoba. The sex and ethnic background of students is indicated on each drawing.

Appendix B

B. Score sheets used by psychologists to record their assessments:

Subject X

SCORE SHEET

Subject's Emotional Adjustment Rating is: (1-7)

very poor adjustment:1

poor adjustment:2

below average adjustment:3

average adjustment:4

above average adjustment:5

well adjusted:6

very well adjusted:7

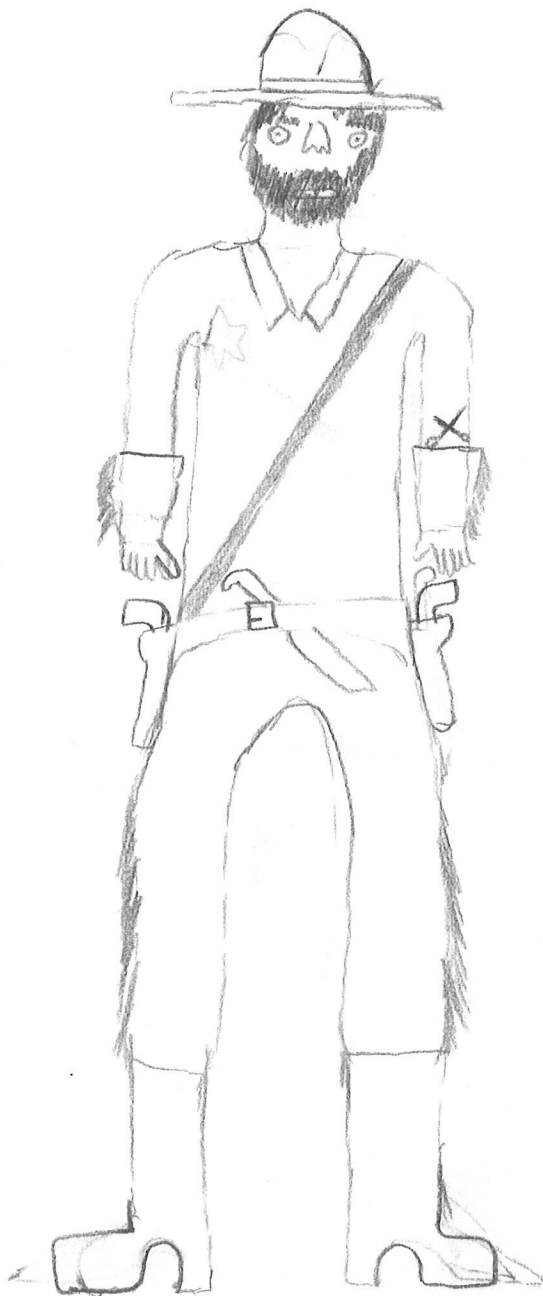
Comments (note one or more significant clinical indicators)

Appendix C

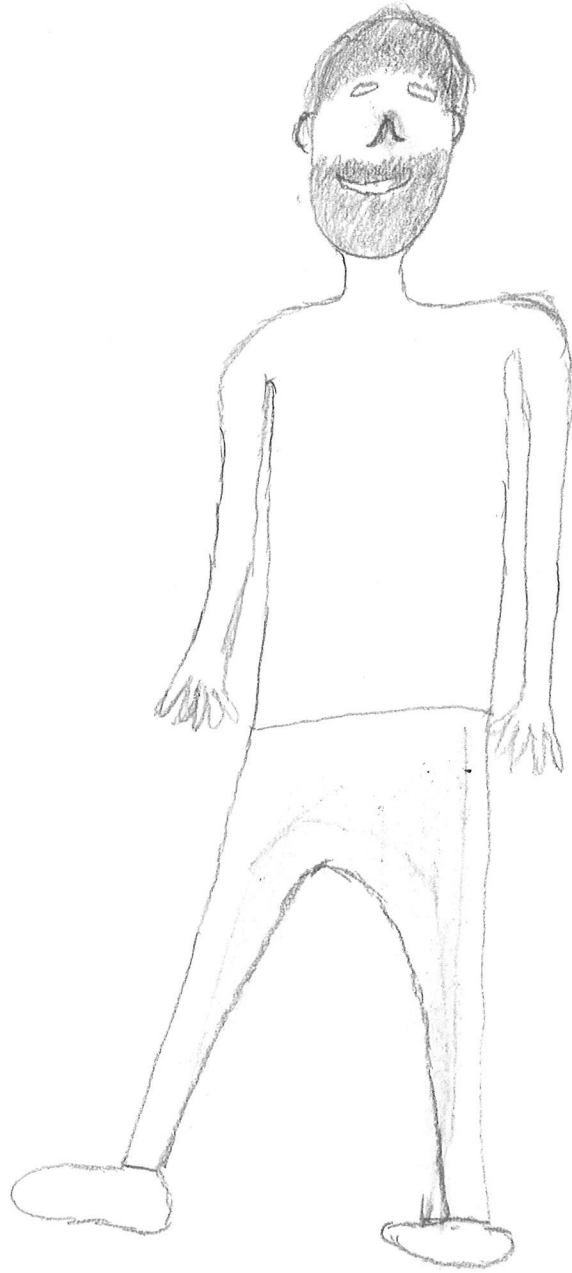
Instructions to students:

In front of you are three sheets of paper. On the lined sheet record your age, sex and ethnic background. Determine your own ethnicity on the basis of your father's ethnic heritage or place of birth. If for some reason this procedure does not apply to you, use your mother's ethnic heritage or place of birth.

On a blank sheet of paper draw a person using a pencil. When this is completed, turn in your drawing. On the second blank sheet, draw another person. Do not draw the same person as the one in your first drawing.



Male
Euro Canadian



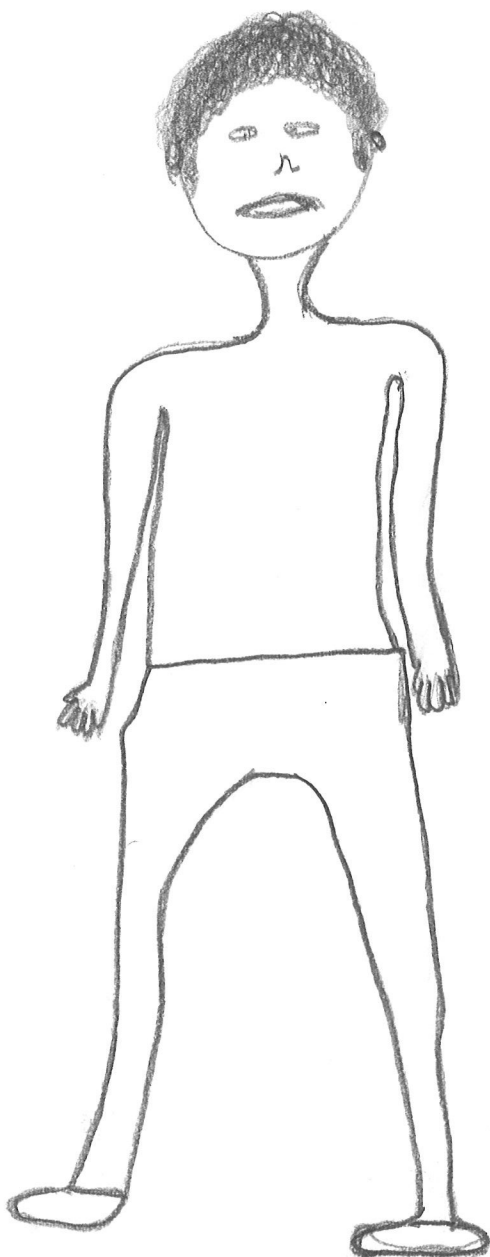
Male
Euro Canadian



Female
Euro Canadian



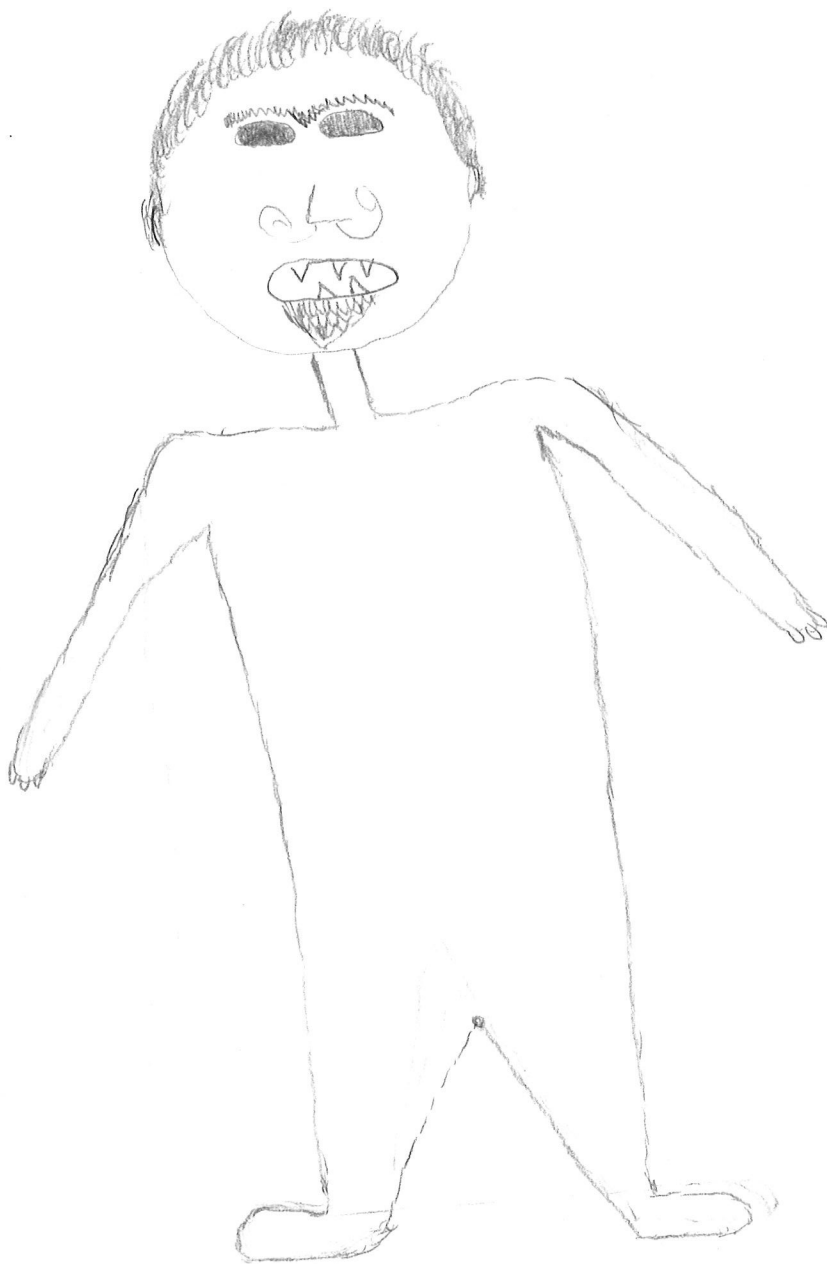
Male
Cree



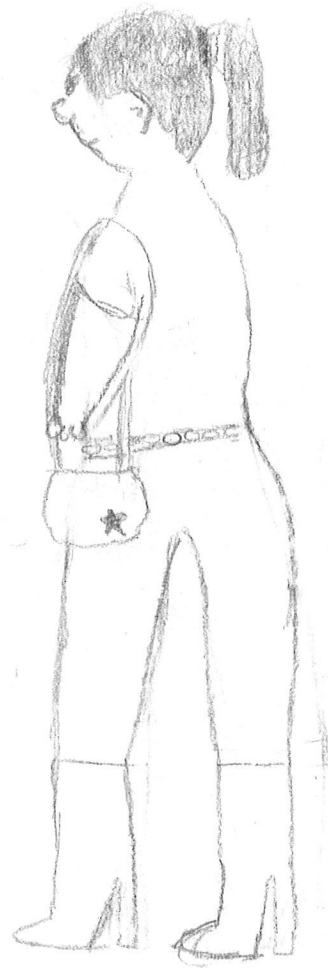
Female
Cree



Female
Cree



Male
Euro Canadian



Female
Cree



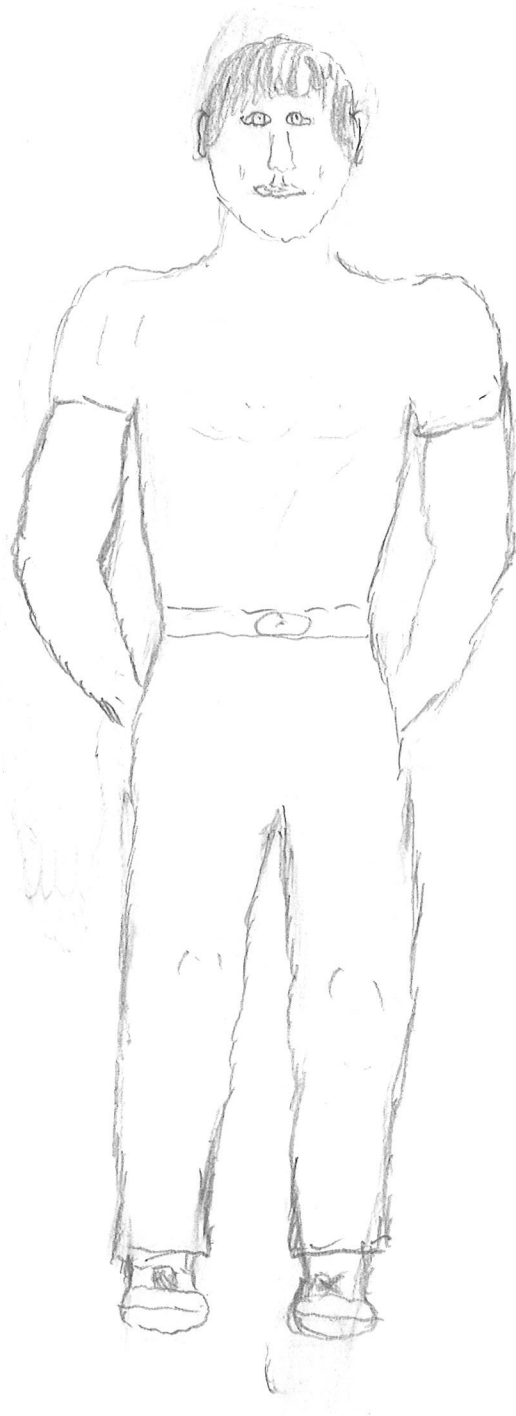
Female
Cree



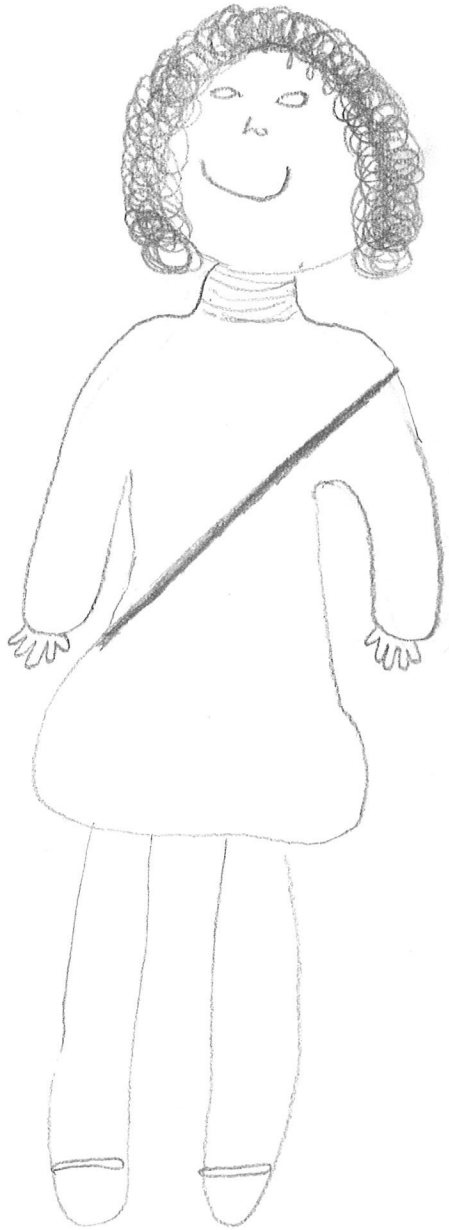
MALE
CREE



Female
EuroCanadian



MALE
EURO CANADIAN



Female
Euro-Canadian



MALE
CREE



Female
Euro-Canadian



MALE
CREE