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THE EFFECT OF INSTRUCTIONAL SET ON THE
SELF-ESTEEM OF NAVAJO CHILDREN*¹

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SUMMARY

Two forms of the Children's Self-Social Constructs Test were administered to 248 first, second, and third grade Navajo boys and girls in order to explore (a) the assumption of cross-cultural equivalence for such measures and (b) the effects of different instructional sets on topographical measures of self-esteem. Results indicate that under standardized conditions the Navajo children rate themselves low in self-esteem. However, when the test rationale was communicated to the children, self-esteem scores significantly increased. Findings are discussed in terms of previous research which suggests Indian children have lower self-esteem than white children. The assumption of cross-cultural equivalence for topographical representations of the self is questioned. Also, problems inherent with using nonverbal measures of self-esteem cross-culturally are discussed.

A. INTRODUCTION

Topographical representations of the self have been used to elicit indications of a child's self-esteem (13). These methods avoid both the problems of self-report measures and provide a fairer measure for the culturally different. The rationale underlying this approach is that the choice of certain figures within an array has constant meaning across Western cultures in both vertical and horizontal dimensions. For example, it is assumed that the choice of the top circle in a vertical array of circles reflects higher self-esteem. Similarly, the choice of the leftmost circle in a horizontal array of circles reflects higher self-esteem than the choice of the rightmost circle. Previous research has supported this assumption (6, 9).

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Applications of nonverbal methods to culturally diverse populations have revealed differential self-esteem levels between subgroups (12). For example, Long and Henderson (4) found that disadvantaged groups had lower self-esteem than advantaged groups and this was in turn related to poorer peer relationships as rated by teachers. However, Anderson (1) has suggested that the assumed equivalence of nonverbal measures across cultures requires additional validation. Shifting from a verbal measure to a nonverbal measure may merely transfer the "translation" problem from one area to another and further confound comparisons between culturally different groups.

Lefley (3), for example, found that a nonverbal topographical measure was culturally inappropriate for the Mikasuki. Furthermore, where several verbal measures of self-esteem could be translated and used appropriately with the Mikasuki the results could be interpreted differentially by culture. Anglo behavioral indicators suggested low self-esteem but when these indicators were interpreted from a Mikasuki perspective, they represented a relatively normal distribution of responses. Such results indicate that culturally patterned and context-bound response tendencies may be salient variables in the administration and interpretation of self-esteem test results with the culturally different.

The purpose of this study was (a) to explore the assumption of cross-cultural equivalence for topographical representations with Navajo children and (b) to determine the effects of different instructional sets on topographical representation measures of self-esteem among Navajo children.

B. METHOD

1. *Subjects*

Ss were 248 Navajo boys ($N = 123$) and girls ($N = 125$) in the first ($N = 87$), second ($N = 56$), and third ($N = 105$) grades of two Bureau of Indian Affairs boarding schools on the Navajo reservation. All children in this sample were bilingual and were selected from an area that is regarded as one of the more traditional areas of the Navajo reservation. All available children in the three grades were studied.

2. *Procedure*

Each child was individually administered the Children's Self-Social Constructs Test (CSSCT) which contains both vertical and horizontal measures of self-esteem under two conditions. In the first condition, they responded to the self-esteem items according to standardized instructions—e. g., "These

circles are children. You pick one to be you" (5, p. 54). In the second condition they responded to these items according to instructions which communicated the rationale of the item—e. g., "These circles are children. If this means best (point to top in the vertical test) and if this means worst (point to bottom in the vertical test), you pick one to be you." Administration of the tests deviated from standardized procedures in two ways. First, in the instructional set condition, items were repeated twice instead of three times. However, the mean score for trials was employed as a criterion measure in both conditions. Second, testors were two bilingual Navajo adult females who administered the CSSCT instructions in English; however, if any questions arose about task requirements they were explained in Navajo. In all other aspects the testing procedures were identical and standardized procedures were strictly followed.

C. RESULTS

Table 1 presents mean values for horizontal and vertical self-esteem scores for each cell. A 3 (Grade) × 2 (School) × 2 (Sex) × 2 (Condition) factorial analysis of variance was computed for each self-esteem measure. Appropriate adjustments for unequal cell sizes were made (11). Scores for the instructional set condition which communicated the rationale of the item were significantly higher for both horizontal ($F = 116.44, df = 1, 26, p < .001$) and vertical ($F = 44.29, df = 1, 236, p < .001$) measures. In addition, a significant main effect for Grade was found for each measure ($F_{\text{horiz.}} = 4.87, df = 2, 236, p < .005$) and ($F_{\text{vert.}} = 12.37, df = 2, 236, p < .001$). Subsequent Scheffe's tests indicated that grade three scores were higher than grade one or two ($p < .005$) for the horizontal measure and that

TABLE 1
 MEAN SCORES FOR CHILDREN BY GRADE, SCHOOL, SEX, AND CONDITION FOR
 HORIZONTAL AND VERTICAL SELF-ESTEEM

Grade	Condition				Total				
	School A		School B		School A		School B		
	Male	Female	Male	Female	Male	Female	Male	Female	
	Standard/Set								
First									
Horiz.	3.19	4.44	3.20	3.84	3.18	4.00	2.57	4.20	3.60
Vert.	3.95	3.46	3.61	3.94	3.46	4.00	3.07	3.40	3.69
Second									
Horiz.	2.96	5.03	2.96	4.92	2.88	4.21	3.52	4.89	3.90
Vert.	3.78	4.90	3.43	4.72	3.33	4.96	3.59	4.78	4.18
Third									
Horiz.	3.08	4.83	3.15	4.90	3.32	5.39	3.28	4.59	4.07
Vert.	3.94	4.65	3.61	4.86	3.93	5.50	3.83	5.11	4.43
Total	3.50	4.50	3.43	4.39	3.42	4.91	3.38	4.60	3.99

grade two and three scores were higher than grade one ($p < .001$) for the vertical measure. For the vertical measure of self-esteem a Grade \times Condition interaction was also significant ($F = 7.12$, $df = 2, 236$, $p < .001$). A subsequent Scheffe's test indicated that scores for grades two and three in the instructional set condition were significantly higher ($p < .001$) than scores for all grades in the standardized condition and grade one scores in the instructional set condition. No differences were found either between sexes or between schools.

D. DISCUSSION

The results indicate that for Navajo children the CSSCT as a measure of self-esteem was at best inconsistent. Under standardized conditions all Navajo children rated themselves low in self-esteem as compared to self-esteem ratings when the test rationale was communicated to them. Furthermore, depending upon grade, children responded differentially to vertical or horizontal self-esteem measures although the difference was not always statistically significant. First graders did not change their responses to either vertical or horizontal measures. For the horizontal measure only third graders had higher self-esteem scores. For the vertical measure both second and third graders had higher self-esteem scores. This grade shift in self-esteem scores between measures is suggestive of a different response dimension underlying horizontal and vertical arrays. While the increase in self-esteem scores with age has been previously noted (5), differential responding to the horizontal and vertical measures suggests imprecision in the measurement of self-esteem when age is not controlled and in the use of the CSSCT under varying instructional conditions.

Previous research which suggests that Indian children have much lower self-esteem than white children (10) must be seriously reconsidered in light of the increased self-esteem scores when the test rationale was communicated to the child. Control strategies generally used in psychological research may have been inadequately considered when using nonverbal stimuli to measure constructs cross-culturally (8). In the present study the assessment of self-esteem concepts with nonverbal measures may confound the translation problem such measures are designed to overcome. When Ss respond nonverbally, sources of error may be difficult to detect in establishing the equivalence of measures because stimuli may be too unstructured. Similarly, beyond specific tests the testing situation itself may be inappropriate for a particular subgroup. The present results suggest that perhaps the initial test administration under standardized conditions was not per-

ceived by the Navajo children as a test. The potential negative consequences when measuring culturally diverse groups places a heavy burden of responsibility on the researcher (7).

In an attempt to avoid the problems inherent in self-report measures of self-esteem, the constructors of nonverbal measures of self-esteem may have made an untenable assumption about topographical representations of the self. Present results strongly suggest that an assumption of cross-cultural equivalence of meaning for such items is questionable. Admonitions to take task and situation variables into account in measures of social competence for the culturally different must be heeded (2). Extreme caution should be employed when characterizing the self-esteem of subpopulations in which equivalence of measurement has not been independently replicated for the group being studied.

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