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ABSTRACT

The purposes of this study were (1) to investigate the possibility that children's racial attitudes could be modified by means of stimulus predifferentiation training, (2) to assess the developmental implications of such training, and (3) to assess the relative sensitivity of two different attitude measures to such manipulation. Subjects were 96 black and white children from grades 2 and 6 of an integrated New York City public school. Subjects were pretested and posttested on two measures: (1) the Projective Prejudice Test, measuring reaction to slides depicting ambiguous interracial situations; and (2) a Social Distance Index, revealing amount of contact desired with members of black, white and Chinese racial groups. The children were assigned to either distinctive labeling training, perceptual differentiation training, or a control group. Children experiencing distinctive labeling and stimulus predifferentiation training elicited lower prejudice scores on two indices of ethnic attitudes than did those in a no-label control condition. (Author/AJ)

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APA Paper

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Stimulus Predifferentiation and Racial  
Attitude Change in Children

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The purpose of this study was to investigate the possibility that children's racial attitudes could be modified by means of stimulus predifferentiation training. This study was part of a larger project concerned with investigating the development of the perceptual correlates of ethnic attitudes. Most theories of racial attitude development have emphasized the role of personality characteristics such as ethnocentrism or the child's total social and familial milieu. In contrast, the theoretical rationale underlying the present project focused upon the perceptual concomitants of hostile ethnic attitudes. This latter emphasis should not be construed as suggesting that social and cultural factors are unimportant determinants of children's attitudes. The traditional focus upon such global variables, however, has not led to much research on attitude modification in children since such complex factors can not be readily manipulated by social scientists. In terms of greater potential behavioral control, the present view suggests that attention be devoted to the perceptual antecedents of attitude development which may

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be more amenable to change attempts.

It is commonly agreed that perceptual categorization of racial groups developmentally precedes the development of prejudicial attitudes (Proshansky, 1966). The details of this process are not completely understood, but it is generally assumed that labels and other verbalizations supplied by the adult community facilitate perceptual categorization by accentuating which stimulus characteristics are to be attended to. Learning to correctly employ such labels may elicit, in Dollard and Miller's (1950) terminology, both acquired distinctiveness and equivalence of cues. The continued use of distinctive labels facilitates discrimination between groups, whereas the use of a common label for all members of a group elicits enhanced perceptual similarity. One consequence of this latter phenomenon is that evaluative statements about groups are more readily generalizable, on the basis of both the label, and the relative lack of attention to individuating characteristics of members within a group. Data we are currently analyzing support these suppositions developmentally. Sixth grade children judge black-white facial pairs as more distinctive than do second grade children. In contrast, perceptual judgments of certain within group differences tend to become more similar with age.

The basic hypothesis tested in the study to be reported today was that ethnic prejudice may be reduced by techniques which increase individuation within a group. Since common labels can so effectively

to mold children perceptions and attitudes toward other groups initially, we explored the possibility of modifying these perceptual patterns through the use of distinctive labeling training and stimulus differentiation procedures. Two secondary interests of the study were to: (a) assess the developmental implications of such training, and (b) to assess the relative sensitivity of two different attitude measures to such manipulations.

#### METHOD

##### Subjects

Ss were 96 black and white children drawn from the second and sixth grade classes of an integrated public elementary school in New York City. These Ss participated in a testing battery administered four weeks prior to the study to 412 children at the school. This battery included a number of tests designed to assess racial and other social attitudes. The Ss were randomly selected from all children who scored in the upper half of one of the instruments, a Projective Prejudice Test designed for use in this study. The 96 Ss were drawn equally from the second and sixth grade classes. Within each racial and age group, half of the Ss were tested by a black examiner and half by a white one. The examiners were both females, in their early twenties. There were an equal number of boys and girls in each group.

##### Pre- and Post-Attitude Measures

The two tests of major interest to this study are the Projective

Prejudice Test and a Social Distance Index. The Projective Prejudice Test, designed for use on this project, was composed of 24 slides depicting ambiguous interracial situations, and Ss were asked to indicate which of several response alternatives was the most likely description. [Examples of slides - #1 & 2 & 3]. For example, one situation pictured a black and white boy both reaching for a trophy. Ss were asked which boy would receive the prize, and whether it was obtained because of effort or cheating. Each item yielded a score of 1, 2, or 3 depending upon degree of prejudice exhibited. Some of the situations depicted negative behavior (e.g. aggression), others positive (e.g. getting a good mark, or a prize, etc.), whereas other actions could be interpreted as either negative or positive. All alternatives were read aloud to the younger group. The total range of possible scores was from 24 to 72, with the higher numbers associated with degrees of prejudice. Split-half reliability was .70.

The social distance measure consisted of photographs of six children in three racial groups: black, white and Chinese. A boy and girl within each group was used. Ss were instructed to look at each slide, and indicate the amount of contact desired with each, in the form of nine alternatives ranging from "I would like to live in the same city as their child" (most distant) to "I would invite this child home to supper" (closest). Only the scores obtained with regard to the Negro slides (for the white children) and Caucasian stimuli (for the black children) were used in the analyses to be discussed today. The possible range was from zero to 18, with the higher numbers associated with

greater prejudice. Split-half reliability on this instrument was .72.

### Experimental Procedure

Four weeks after the pretest batteries were administered, Ss were tested individually in a mobile laboratory unit in the school yard. Ss were randomly assigned to three experimental conditions: (a) Distinctive labeling training; (b) Perceptual differentiation training; and (c) No label control.

The stimuli employed in this task were four drawings of faces which varied in color, shade, type of hair, shape of eyebrows and facial expressions. White Ss viewed black faces, and black Ss viewed white faces. Labeling training consisted of associating four names to each of four faces for forty trials. Ss were told "right" for selecting the correct label, and given the correct response if they were wrong. The perceptual differentiation group was given 40 trials in which they were asked to judge pairs of these faces as "same" or "different." The no label group viewed the four individual faces for 40 trials without names.

Following this training, all Ss received a perceptual judgment task in which they were asked to evaluate the similarity of sixteen facial pairs presented tachistoscopically for a one second exposure. Similarity judgments were obtained by means of an apparatus with a movable lever, and Ss could indicate any degree of similarity from complete identity to maximum difference. A day after the judgment tasks, Ss received the Projective Prejudice and Social Distance instru-

ments again, this time in a small group, with the same examiner. The order of administration of the tests was counterbalanced across groups.

## RESULTS

### Perceptual Similarity Task

The first question assessed was whether the various conditions differentially affected judgments of similarity. The total range possible on this task was from 0 to 11, with the larger numbers associated with maximal distinctiveness. The means, contained in Table 1 of the handout sheet, indicated that the distinctive label group perceived the stimuli as most distinctive, whereas the control group viewed them as least distinctive. Statistical analysis revealed that the two experimental groups differed significantly from the control ( $F = 4.06$ ,  $df = 1, 72$   $p < .05$ ) but not from each other. Thus, the stimulus pre-differentiation manipulations appeared to elicit greater perceptual distinctiveness.

### Projective Prejudice Test

In accordance with Cronbach and Furby's (1970) recommendations with regard to measuring change on tests, an analysis of variance was conducted on post-test scores only. It should be recalled that ss were randomly assigned to treatments, and analyses of the pretest scores revealed no significant preexisting differences associated with the treatment variable.

The analyses of the post-test scores revealed that the effect of treatment was statistically significant ( $F_{2,72} = 3.62$   $p < .05$ ). The

means, presented in Table 2a, indicate that the no label control group had higher scores on this instrument than either of the two experimental groups. These latter groups did not differ significantly from each other. Thus, both labeling and differentiation training elicited lower scores on this projective test than the control condition.

Two other findings which emerged from this analysis were: (a) a significant age effect, indicating that the younger children expressed more prejudice, and (b) a Treatment X Age X Race of Examiner interaction. The pattern of means involved in this latter interaction, presented in Table 2b, suggests that the treatments were differentially effective as a function of developmental level and the race of tester. With the white tester, the discrepancy between experimental and control groups was greatest at the older age level, whereas the effectiveness of the black examiner was more pronounced with the younger children. One possible explanation of this effect is that the presence of a black examiner may have increased both the salience and awareness of racial issues for the older children, perhaps reflecting the relative absence of black authority figures in the school. Although the student body was racially integrated, the faculty was predominantly white. This increased salience hypothesis is also corroborated by the additional finding that the age differences were due primarily to the negative items, i.e. the older children were generally less willing to attribute negative characteristics to other race children. No age differences were found on the positive and ambiguous items, however, suggesting that these may be less susceptible to social desirability influences.

### Social Distant Test

An analysis of variance was conducted on the post-test scores of the social distance measure with regard to other-race slides (i.e. pictures of black children for white Ss, and white children for black Ss). As in the previous measure, the effect of treatment was found to be statistically significant. The means for this effect are presented in Table 3a, and it can be seen that the control group, once again, emerged with the highest prejudice score. Unlike the projective instrument, however, the perceptual differentiation condition was more effective in reducing scores than the distinctive labeling training on this instrument.

In addition to this main effect, two interactions yielded significant findings: (a) Grade X Race of Examiner, and (b) Grade X Race of Examiner X Race of Subject. The means involved in these interactions are presented in Table 3b of the handout sheet. The double interaction (look at bottom line of table) suggests a slight increase in prejudice with a white examiner and a decrease with a black examiner. When the race of the subject is taken into account, however, it can be seen that the increase with age only occurred for black children tested by a white examiner. Under all other conditions there was a decline with age.

### DISCUSSION & CONCLUSIONS

The most significant finding of the present study was that dis-

tinctive labeling and stimulus predifferentiation training elicited lower prejudice scores for children on two indices of ethnic attitudes than did a no-label control condition. Distinctive labeling and perceptual differentiation training were equally effective in reducing prejudice on a multiple-choice projective technique, whereas the perceptual differentiation training condition was more effective in reducing social distance scores. The greater perceptual distinctiveness of other-race faces associated with these two treatments suggests that increased differentiation of group members may be related to more positive ethnic attitudes. In general, the consistency of the treatment effect across all measures supports the theoretical rationale originally advanced which suggested that modifying the perceptual concomitants of ethnic attitudes would result in attitude change. Thus, the major hypothesis of the study was supported.

The interaction effects obtained, however, suggest that the effectiveness of the experimental procedures employed may be contingent upon a number of factors such as the race of the subject and the examiner, as well as developmental level. Clearly, a child's response to a test of ethnic attitudes is a complex phenomenon. The two tests selected here were the ones in the original battery that were least susceptible to developmental changes, and seemed the most subtle. Nevertheless, the sixth graders' greater awareness and sophistication reflected itself in somewhat lower prejudice scores than the younger children. The issue of how such awareness manifests itself on tests

is a complicated one worthy of study in its own right, since lower prejudice scores were not consistently associated with the older children. On the projective instrument, for example, only the negative items elicited lower prejudice scores with age; the positive and ambiguous ones remained constant across age groups. Moreover, with regard to the Social Distance Index, black children tested by a white examiner exhibited an increase in prejudice with age, suggesting that the social demands of the testing situation may be very different for particular subject-experimenter combinations.

It might be argued that the pre-post testing procedure sensitized all the children, and particularly the older ones, to the purpose of the study, and thus the decline in prejudice scores may merely reflect increased awareness and an attempt to please the examiner. This position, however, is not in accord with the finding that the control group changed less than the others, despite its exposure to both the pretest battery and the perceptual judgment task. In order to maintain this argument then, it would be necessary to postulate that labeling and same-different training elicited greater awareness of the experimenter's purpose than observation of the same pictures without such training which seems an implausible possibility for elementary school children.

In conclusion, the results support the position that systematic application of stimulus differentiation techniques may modify ethnic attitudes. The permanence of such effects is obviously an important question which we were unfortunately unable to answer in the present study. The findings further corroborate the notion that assessment of

children's attitudes is a complex phenomenon, and may be affected by a number of developmental and racial factors.