CHICANO RACIAL ATTITUDE MEASURE (CRAM): EFFECTS OF A

BILINGUAL-BICULTURAL EDUCATION, AND

FURTHER STANDARDIZATION

by

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ACKNOWLEDGMENTS

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ABSTRACT

This study employs the Chicano Racial Attitude Measure (CRAM),
to measure attitudes of Chicano children towards their own race. The
CRAM is adapted from the Preschool Racial Attitude Measure (PRAM II),
an instrument designed to measure attitudes towards Blacks that was
developed by Dr. John Williams and his associates at Wake Forest Uni-
versity. Subjects are 96 Chicano second graders (ages 7 and 8), half
males and half females. An assessment is made of how these children
view their own race, and how this view is affected by exposure to a
bilingual education, by the race of the examiner, and by being enrolled
in a school with a majority versus a minority Mexican American enroll-
ment.

Twenty-four racial attitude pictures are used in the CRAM.
Each picture shows one Chicano and one Anglo figure. A brief story
accompanies each picture and contains either a positive or a negative
evaluative adjective (PEA or NEA respectively). The subjects are asked
to identify which picture is described by the PEA or the NEA. The
children were tested individually. Subjects demonstrated a significant
pro-Anglo, anti-Chicano (A + Ch -) bias. An ANOVA showed no difference
between subjects in the bilingual versus the traditional program, no
race of examiner effects, and subjects in the schools with a majority
Mexican American enrollment evidenced less A + Ch - bias than subjects
in the schools where Mexican Americans were a minority. Tests were
also conducted to standardize the CRAM for further research.

INTRODUCTION

The present study is a follow-up of an earlier study (Bernat and Balch, in press) that introduced an instrument designed to measure attitudes of Anglo and Chicano children towards Chicanos (Americans of Mexican descent or birth). This instrument, the Chicano Racial Attitude Measure (CRAM), was adapted from the Preschool Racial Attitude Measure (PRAM II) developed by Dr. John Williams and his associates (Williams et al. 1975) to measure attitudes towards Blacks. The PRAM II uses line drawings of Blacks and Caucasians paired with either a negative or a positive evaluative adjective (NEA and PEA respectively) as a measure of racial attitude. Studies using the PRAM II were conducted from 1960 through 1975 in various parts of the United States. The results of these studies always demonstrated a significant pro-White, anti-Black bias among both Black and White children.

In order to measure attitudes towards Chicanos the figures from the PRAM were changed to represent Anglos and Chicanos. A series of these pictures forms the CRAM. Young children are asked to attribute a PEA or an NEA to either the Anglo or the Chicano figure.

Results from the initial study using the CRAM (Bernat and Balch, in press) demonstrated a significant pro-Anglo, anti-Chicano bias among both the Anglo and the Chicano children. The authors discuss two interrelated effects of this anti-Chicano bias. First, anti-Chicano bias on the part of Anglos was seen as producing the limited opportunities and restricted social acceptance that Chicanos encounter.

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Secondly, anti-Chicano bias on the part of Chicanos themselves was seen as contributing towards a negative self-evaluation. It was suggested that these mutually negative views of the Chicano serve to perpetuate their substandard living conditions. Chicanos represent the second largest minority in the United States, yet compared to other non-white minorities (Blacks, Indians, and Orientals), they are worse off in every respect. They are poorer, their housing is more dilapidated, their unemployment rate is higher, and their educational level is lower (two years below non-whites, and four years below Anglos, Burma 1970 and Padilla and Ruiz 1973). These depressed conditions are especially significant in view of the large numbers involved, and the rate of growth of the Chicano population. Tyler (1975) reports that there are over six and one-half million Americans of Mexican origin living in the United States, and that the size of this population increased by 36.75 percent between 1960 and 1972 compared to 14 percent for the population as a whole. This rate of growth was particularly accelerated outside of the southwest where the Chicano population increased by 62 percent highlighting the emerging significance of the Chicano as a national rather than a regional figure. These statistics further emphasize the importance of intervening to break the cycle of poverty and unemployment which has become the lot of the Chicano.

One of the factors that maintain this cycle is the inferior educational level attained by Chicanos. A recent report showed that 26.7 percent of the Mexican American population had completed less than five years of school as compared to 4.6 percent in that category for

the population as a whole. Also, only 25 percent of Mexican Americans completed high school as compared to 58 percent from the total population (Tyler 1975).

In efforts to upgrade this inferior educational level various school-related factors have been examined, and some new educational approaches have been implemented. The present study measures the effectiveness of three of these approaches. Effectiveness, in this research, is measured by how a particular educational factor affects the way Chicano children view their own race as measured by the CRAM. There is considerable evidence which indicates that Chicanos generally view their own race negatively. Cota Robles de Suarez (1971) concluded that Mexican Americans experience self-hatred in response to the prejudice and discrimination they encounter. Peterson and Ramirez (1971) noted that in self-ratings, Mexican American children were significantly more likely than Anglo children to describe themselves in derogatory terms such as ."dull", "lazy", and "stubborn". Similarly Bernat and Balch (in press) using the CRAM demonstrated an overwhelming anti-Chicano bias among Chicano subjects. This negative evaluation of their own race is seen as contributing to a low self-esteem and a poor sense of self. A person who views their own racial heritage as being "inferior" or of lower status is likely to develop an identity which includes feelings of basically being an unacceptable person. With such an impoverished sense of self it would be very difficult to experience school, or life, positively. Nava (1973) holds that no program will successfully alter the poor school performance of Mexican American

children if the program doesn't include a positive view of the child's racial group. This study compares how Chicano children view their own race after exposure to a bilingual versus a traditional education, how their Chicano racial attitude is affected by the race of the examiner, and how this racial attitude is affected by the ethnic distribution in the school (a majority versus a minority Mexican American student body). It was expected that subjects would demonstrate a pro-Anglo, anti-Chicano bias (or pro light-skinned, anti dark-skinned bias) in keeping with previous studies using the CRAM and the PRAM II (Bernat and Balch, in press; Williams et al. 1975; and Iwawaki et al. 1976). It was also hypothesized that the Chicano children in the bilingual programs would demonstrate less pro-Anglo, anti-Chicano bias than children receiving a traditional education, and that subjects would demonstrate less pro-Anglo, anti-Chicano bias when tested by a Chicano versus an Anglo examiner. A final hypothesis predicted that the ethnic distribution in the school (a majority versus a minority Mexican American enrollment) would not have an effect on the Chicano racial attitude of the subjects.

The following explains in more detail why measuring how Chicanos view their own race has been chosen as a way to assess the effectiveness of each of the educational factors studied (bilingual education, race of examiner, and ethnic distribution in the school). The first factor, bilingual education has as one of its goals to provide a positive presentation of the minority child's language and culture. It is hoped that this positive presentation will contribute

to a positive self-concept. This research focuses on this aspect of bilingual educational programs. A recent article in the APA Monitor (September-October 1977) reports that Spanish speaking children enrolled in these programs are learning English more slowly than children who are not enrolled in such programs and at a greater cost per pupil. Supporters of bilingual-bicultural educational programs argue that the goals of these programs are much broader than simply to learn English faster. Padilla (1976), for example, emphasizes that bilingual education can successfully upgrade the educational level of Chicanos only if the Chicano language and culture are presented as being equal in status to English and the Anglo culture. He describes three divergent philosophies of bilingual education. The first, cultural assimilation, sees bilingual education as a way to bridge the gap between the child's home and the school. The goal is to prepare the child for assimilation into the "regular" school program. The child's native language, usually Spanish, is used mainly to facilitate learning English. These programs are designed essentially for the Spanish speaking children, and the implication is that English is the more valuable language, and that the Anglo culture is the "approved" one. The second approach, cultural pluralism, emphasizes a mutually enriching experience for both majority and minority group members. All students (on a voluntary basis) are taught in both languages. Both languages are considered equally important and both are used to teach essential skills. All students become truly bilingual, and learn to use both languages interchangeably. The third philosophy, cultural

separation, would establish a completely separate educational program for Chicano children where, at best, the English language and the Anglo culture would be relegated to a subordinate position. All essential skills would be taught in Spanish, and the Chicano culture would be emphasized. Cultural separation is the opposite of assimilation.

Lambert (1977) also points out the advantages of cultural pluralism, and explains the psychological factors which would make it essential for a child to have a positive view of his own cultural heritage before he could benefit from a bilingual educational program. Lambert feels that learning two languages, especially before the teen age years, is an enriching experience which increases general intelligence and creativity. He believes that bilingual people have more interesting and broader life experience because of their increased ability to understand cultural differences. Lambert does stress, however, that bilingualism is a positive experience only if the two languages are of equal status, or if the child's first language is the higher status one. If the child's first language is presented even indirectly, as being of lower-status, then, by implication, the child's identity is also perhaps of lower status. In that situation, psychological factors interfere with learning the second language regardless of the method that is used. In learning a second language which is of higher status than his own the Chicano child fears that he might lose his first language, and, in the process, might lose a part of himself. If the child's first language is the higher status one, or if both languages are of equal status, then the child knows that there is no

danger of losing his language, and instead sees the addition of another language as a plus to his personality.

The bilingual programs in this study were operating mostly under the philosophy of cultural assimilation as described by Padilla. (1976). The great majority of the students were either monolingual in Spanish or predominantly Spanish speaking. There were few, if any, Anglos in the programs. The approach emphasized using bilingualism to learn English as quickly as possible. In these programs the children began to read in their dominant language, Spanish, while acquiring their second language, English. All teachers and aides were bilingual so that instructions were provided orally in both languages by the same person. By the second grade some students were able to read in English, with most able to do so by the third grade. The cultural aspects were incorporated into the classroom schedule as possible. Parental consent was required for a child to participate in the bilingual program, but the principals of the two schools that offered this program reported that virtually all of the Mexican American parents readily gave their consent.

The second educational factor studied, race of examiner effects, was selected because Padilla (1976) states, as have other researchers, that a same race model in a position of authority can be a positive factor in a child's view of his own race. Williams et al. (1975) using the PRAM II demonstrated that both the black and white children in his study showed greater pro-white bias when the examiner was white. Evidently a black as examiner lessened the amount of anti-black bias

shown. This study employed two Chicano and two Anglo female examiners, and measured Chicano racial attitude under the two conditions.

In setting up the design of this experiment it was noted that two of the four schools had a majority Mexican American enrollment, and that in the other two schools Mexican Americans were a minority. (The schools were counterbalanced to control for the effects of a bilingual versus a traditional program.) It was decided to examine whether this distribution had any effect on the Chicano racial attitude of the subjects. It was considered that this information might give some clues as to the effects on racial attitude of being functionally segregated in school with others of their own race.

Overall, this study investigates how Chicano children view their own race, and how this attitude is affected by various educational factors. Evidence is presented which indicates that developing a positive view of their own racial heritage is essential for a successful educational program.

METHOD

Subjects

The subjects for this study were 96 seven and eight year old second grade school children. All of the children were Spanish sur-named and were identified as Chicanos by their teachers. Chicano children were defined as children of Mexican descent or birth. There were 24 subjects from each of four different elementary schools (12 males and 12 females). There were 4 female examiners, 2 Chicanas, and 2 Anglos. All examiners were either graduate or undergraduate psychology student. Each examiner tested 6 subjects at each school (3 males and 3 females).

The characteristics of each of the schools are shown in Table 1. Two of the schools had a predominantly Mexican American student enroll-ment (96.6 percent and 87.3 percent). One of these schools had a bilingual program, and the other followed a traditional approach. The other two schools had a minority Mexican American enrollment (37.2 percent and 38.9 percent). One of these schools also offered a bilingual program, and the other provided traditional teaching methods.

Instrument

A series of twenty-four racial attitude pictures were used. Each picture shows one Anglo and one Chicano. The figures represent both sexes, a variety of ages, and a variety of positions (sitting, standing, and walking). The figures are dressed identically, and are

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Table 1. Characteristics of the Four Schools

School	Type of Educational Program	Percentage of Spanish Surnamed Students Enrolled	Percentage of Bilingual Teachers	SES
1	Traditional	96.6	58	Lower
2	Bilingual-bicultural	87.3	36	Lower
3	Traditional	37.2	14	Lower-middle
4	Bilingual-bicultural	38.9	43	Lower-middle
Schools 1 - 2	--	Majority Mexican American	47	
Schools 3 - 4	--	Minority Mexican American	28.5	
Schools 1 - 3	Traditional	--		
Schools 2 - 4	Bilingual-bicultural	--		

alike except that the Chicano figure has black hair, a darkish skin, a slightly rounded face, and large eyes. The Anglo figure has blond hair and a pinkish tan skin.

A brief story accompanies each of the pictures. Each story contains either a PEA or an NEA. The twelve positive adjectives are clean, good, kind, nice, pretty, smart, friendly, happy, healthy, helpful, right, and wonderful. The twelve negative adjectives are bad, dirty, mean, naughty, ugly, stupid, cruel, sad, selfish, sick, unfriendly, and wrong. A previous study using the CRAM (Bernat and Balch, in press) the twelve PEA's were consistently associated with the lighter figure, and the twelve NEA's with the darker figure. All of the PEA's, and all but three of the NEA's were significantly (.05) associated with the predicted figure. The three exceptions were "sad", "cruel", and "sick".

In addition to the racial attitude items, there are a series of twelve sex role items which assess the child's knowledge of typical sex-stereotyped behaviors. These provide a control measure of general conceptual development as well as a distraction from the racial aspects of the test. Each of these pictures displays a male and a female figure of the same general age and of the same race (half of the pictures represent Chicanos and half Anglos).

In summary, the materials for the total procedure consist of 36 pictures, 24 of which are racial attitude items and 12 are sex role items. The first item is a sex role picture, and the next two are racial attitude pictures. This pattern is repeated throughout the test.

Procedure

The standard procedure for administering the test was as follows. The child was taken from his classroom to a private room where he and the examiner were seated at a low table. While establishing rapport the examiner asked the child his name and age, and a few questions about his siblings and his school activities. All the children understood enough English to respond properly to the question, and no subjects were eliminated for that reason. After the examiner was satisfied that rapport had been established, she placed the picture notebook and an answer sheet on the table and said "What I have here are some pictures I'd like to show you, and stories to go with each one. I want you to help me by pointing to the person in each picture that the story is about. Here, I'll show you what I mean." The examiner then opened the notebook to the first (sex-role) picture of a little boy and a little girl seated, and read the first story: "Here are two children. One of these children has four dolls with which they like to have tea parties. Which child likes to play with dolls?" After recording the child's response, the examiner displayed the second picture of two little boys, one Chicano and one Anglo, walking and read the second story, "Here are two little boys. One of them is a <u>kind</u> little boy. Once he saw a kitten fall into a lake and he picked the kitten up to save it from drowning. Which is the <u>kind</u> little boy?" After recording the child's response, the examiner proceeded to picture three and story three, etc., until all thirty-six items (12 sex-role and 24 racial attitude) had been presented.

Half the subjects were administered the second half of the test first, in order to study the equivalence of Series A (items 1-18) and Series B (items 19-36) of the procedure.

Scoring was done in the following manner. The racial attitude score was determined by counting one point for the selection of the light-skinned figure in response to a positive adjective, and one point for the selection of a dark-skinned figure in response to a negative adjective. The racial attitude total score (RA) based on all 24 items thus has a range of 0-24, with high scores indicating a pro-Anglo/ anti-Chicano bias, and low scores indicating a pro-Chicano/anti-Anglo bias. Mid-range scores (around 12) were assumed to indicate no bias. In addition to this total score, two pairs of sub-scores were determined for each subject. Each pair of sub-scores was based on a division of the subject's responses into two halves, and each sub-score thus had a range of 0-12: 1) a first-half (Series A) score (RAA), and a second-half (Series B) score (RAB); 2) an odd numbered items score (RA odd), and an even numbered items score (RA even). These sub-scores were used to evaluate the internal consistency of the test. The twelve sex-role items were scored by giving one point for each sex appropriate response, yielding a possible score range of 0-12.

RESULTS

Racial Attitude (RA) Scores

All subjects showed a significant pro-Anglo, anti-Chicano bias as indicated by RA scores. The RA score is determined by counting the number of Anglo (light-skinned and light-haired) figures chosen in response to a PEA, plus the number of Chicano figures (dark-skinned and dark-haired) figures chosen in response to an NEA. The range of possible RA scores is 0-24, with 0 representing an absolute pro-Chicano, anti-Anglo bias (Ch + A -), 24 representing an absolute pro-Anglo, anti-Chicano bias (A + Ch -), and 12 representing no bias or a random selection. In a non-biased situation it could be assumed that one-half of the subjects would score 12 or below, and the other half would score over 12. In fact, 19 subjects scored 12 or below, and 74 subjects received an RA score over 12. Using a binomial test for a large N it was determined that the probability of these results is less than .0001 (see Table 2).

Since this is a two choice task another way of understanding the RA scores is to use a binomial distribution to determine how far above or below the midpoint of twelve a score must be to be considered indicative of a "significant" racial bias. Scores of 10 or less or 14 or more would be expected to occur by chance 27 percent of the time. Thus, a score of 10 or 14 would not provide a very confident basis for inferring racial bias. On the other hand, scores of 7 or less or 17 or more would occur by chance only about 3 percent of the time, and can be

Table 2. Distribution of Scores Around the Midpoint of Twelve

Distribution of RA Scores	Scores 12	Scores 12	Total Number of Subjects
Male Subjects	40	8	48
Female Subjects	34	14	48
Chicano Examiners	34	14	48
Anglo Examiners	40	8	48
Schools, Mexican American Majority	35	13	48
Schools, Mexican American Minority	39	9	48
Traditional School	37	11	48
Bilingual School	37	11	48
Total	74	22	96

considered almost always indicative of a significant bias. In Table 3

the RA scores have been classified into five groups as follows: scores

of 17-24, definite A + Ch - bias; 15-16, probable A + Ch - bias; 10-14,

non-biased; 8-9, probable Ch + A - bias; 0-7, definite Ch + A - bias.

In the "chance expectancy" column in Table 3 is listed the percentage

of subjects that would be expected to score in that category by chance.

The remaining columns represent the percentage of subjects that

actually did score in each category.

Only 32 percent of the subjects were in the non-biased category

as compared to a chance expectancy of 69 percent $(p < .001)$. By the

same token 62 percent of the subjects showed a definite or probable

A + Ch - bias as compared to a chance expectancy of 15.5 percent

$(p < .0001)$.

ANOVA

A four-way analysis of variance was used to determine if RA

scores were affected by sex of subject, race of examiner, type of edu-

cational program (traditional vs. bilingual), or the ethnic distribu-

tion in the school.

Sex Effects

Results of the ANOVA showed no significant sex effects, but a

definite trend was observed indicating that the male subjects tended to

demonstrate greater A + Ch - bias than the females $(p < .142)$. This

trend was further supported by examining the number of male versus

female subjects scoring at the high end of the scale. Using a binomial

Table 3. Distribution of Racial Attitude Scores (in Percentages) Classified into Five Categories

RA Score Range	Category	Chance Expectancy Percent	Percentage Observed								
			Total	Male Subjects	Female Subjects	Chicana Examiners	Anglo Examiners	Schools Mexican American Majority	Schools Mexican American Minority	Traditional School	Bilingual School
17 - 24	Definite A + Ch - Bias	3.3	43.7	52.1	35.4	43.8	43.8	37.5	52.1	47.9	39.6
15 - 16	Probable A + Ch - Bias	12.2	18.8	14.6	22.9	14.6	22.9	16.7	18.8	10.4	27.1
10 - 14	Non-biased	69.3	32.3	29.2	35.4	33.3	31.3	37.5	27.1	37.5	27.1
8 - 9	Probable Ch + A - Bias	12.2	2.1	0	4.2	2.1	2.1	2.1	2.1	0	4.2
0 - 7	Definite Ch + A - Bias	3.3	3.1	4.2	2.1	6.3	0	6.3	0	4.2	2.1

test, the number of male subjects receiving an RA score of 17 or higher
(the area of definite A + Ch - bias) was compared to the number of
female subjects scoring in the same area. There were 25 males and 17
females who received an RA score of 17 or higher. The probability of
this distribution is less than .02.

There were also some significant results in the ANOVA involving
interactions that included the male subjects. These interactions also
indicated that male subjects tend to demonstrate more A + Ch - bias
than females. Male subjects showed significantly more A + Ch - bias
with Examiner 1, a Chicano examiner (p < .039), and male subjects in
school #4 (a bilingual school with a minority Mexican American enroll-
ment) showed the highest A + Ch - bias of all groups (p < .077).

Race of Examiner Effects

There were no main examiner effects. There were some trends
indicated in the interactions, but the N's were too small to warrant
further examination.

Program Effects

Table 4 clearly illustrates that the degree of A + Ch - bias
was not affected by whether the subject was being taught in a tradi-
tional versus a bilingual program.

Effects of the Ethnic Distribution in the Schools

The ANOVA showed that racial attitude was significantly
affected by the ethnic distribution in the school. The subjects in the
schools with a majority Mexican American enrollment demonstrated less

Table 4. Concise Representation of the Distribution of RA $\bar{x}$'s

Examiners	Male Subjects	Female Subjects	Schools Mexican American Majority	Schools Mexican American Minority	Traditional Schools	Bilingual Schools	Overall
Chicana	15.94	14.55	13.91	16.64	14.73	15.67	15.25
Anglo	16.74	15.76	15.88	16.59	16.8	15.67	16.24
All	16.34	15.16	14.9	16.61	15.77	15.67	15.74

A + Ch - bias than the subjects in schools where Mexican Americans were a minority (p < .039).

Table 5 illustrates the complete distribution of RA $\bar{x}$'s. Table 4 is a more concise representation of the same distribution.

In accordance with these findings it is noteworthy that 4 of the 5 subjects who demonstrated a definite Ch +. A - bias were from the predominantly Mexican American schools.

Sex-Role (SR) Scores

The sex-role score is a measure of a non-racial concept which serves as a control or anchor. Williams (1971a) reports that in developmental studies the sex-role scores, which increase with age and correlate positively with IQ, have served as an index of general conceptual development. In attitude change studies, the SR scores have been useful in demonstrating that the experimental procedure which produced changes in racial attitude did not produce changes in an associated non-racial concept. In the present study only 9 out of 96 subjects failed to achieve a perfect SR score, and 5 of these made only one error, indicating that the subjects were not responding randomly, and that they understood the nature of the task.

Internal Consistency

Equivalency of Series A and Series B

In order to measure the internal consistency of this instrument, and with the idea of using it in the future for pre and post tests, the CRAM was divided into two split halves. The first 12 racial

Table 5. Racial Attitude (RA) Mean Scores

		School 1 MA Major T	School 2 MA Major B	Schools 1 and 2 MA Major	School 3 MA Minor T	School 4 MA Minor B	Schools 3 and 4 MA Minor	Schools 1 and 3 Traditional	Schools 2 and 4 Bilingual	Overall
E 1 MA	x̄	13	14.33	13.67	15.83	17.5	16.67	14.2	15.93	15.167
	♀	9.33	13.0	11.17	14.67	16.33	15.5	12.0	14.67	13.333
	♂	16.67	15.67	16.17	17.0	18.67	17.84	16.84	17.17	17.000
E 2 MA	x̄	15	13.3	14.15	15.5	17.5	16.5	15.25	15.4	15.333
	♀	16.33	15.67	16.0	16.33	14.67	15.5	16.33	15.17	15.750
	♂	13.67	11.0	12.34	14.67	20.33	17.5	14.17	15.67	14.917
E 1-2 MA	x̄	14	13.82	13.91	15.67	17.5	16.64	14.73	15.67	15.25
	♀	12.83	14.34	13.59	15.5	15.5	15.5	14.17	14.92	14.542
	♂	15.17	13.34	14.26	15.84	19.5	17.62	15.5	16.42	15.959
E 3 A	x̄	15.83	17.83	16.83	17.	15.5	16.25	16.42	16.67	16.542
	♀	14.33	18.33	16.33	16	13.33	14.67	15.17	15.83	15.5
	♂	17.33	17.33	17.33	18	17.67	17.84	17.67	17.5	17.583
E 4 A	x̄	14.67	15.17	14.92	19.67	14.16	16.92	17.17	14.67	15.917
	♀	16.33	15.67	16.00	20.	12.	16.00	18.17	13.84	16.0
	♂	13.0	14.67	13.84	19.33	16.33	17.83	16.17	15.5	15.833
E 3-4 A	x̄	15.25	16.5	15.88	18.34	14.83	16.59	16.8	15.67	16.25
	♀	15.33	17.0	16.17	18.00	12.67	15.34	16.67	14.84	15.76
	♂	15.17	16.0	15.64	18.67	17.00	17.84	16.92	16.5	16.71
All E's	x̄	14.625	15.167	14.896	17.0	16.167	16.584	15.813	15.667	15.74
	♀	14.083	15.667	14.875	16.750	14.083	15.417	15.417	14.875	15.146
	♂	15.167	14.667	14.917	17.250	18.250	17.75	16.209	16.459	16.334

attitude pictures, and the first 6 sex-role items were called Series A, and the last 12 racial attitude pictures, and 6 sex role items were called Series B. The other split half comparison involved odd versus even items.

The RA score for Series A (RAA) was obtained by scoring the first 12 racial attitude items, and the RA score for Series B (RAB) was obtained by scoring the last 12 racial attitude items. The same method was used to determine an RA odd and an RA even score. The range of scores for RAA, RAB, RA odd, and RA even is 0-12, with 12 representing an absolute A + Ch - bias. A t test showed no significant difference between RAA and RAB $\bar{x}$'s, or between the $\bar{x}$'s for the RA odd and RA even split halves. These data demonstrate that the two halves of the CRAM are equivalent, as are the odd and even numbered items.

RAA $\bar{x}$ = 7.813

RAB $\bar{x}$ = 7.906

RA odd $\bar{x}$ = 7.979

RA even $\bar{x}$ = 7.750

Item Analysis

Table 6 lists the 12 positive evaluative adjectives (PEA's), and the 12 negative evaluative adjectives (NEA's) of the CRAM and reports the percentage of subjects responding to PEA's by selecting the Anglo figure, and to NEA's by selecting the Chicano figure. In each column the notation (n) means that the accompanying percentage is not significantly (.05) different from chance, or a random selection.

Table 6. Item Analysis

PEA	Number Correct	Percent Correct	Number Incorrect	Percent Incorrect
Kind	68	70.8	28	29.2
Friendly	65	67.7	31	32.3
Nice	71	74	25	26
Healthy	58	60.4	38	39.6
Clean	55	57.3	41	42.7
Wonderful	69	71.9	27	28.1
Pretty	56	58.3	40	41.7
Happy	72	75	24	25
Good	68	70.8	28	29.2
Helpful	71	74	25	26
Smart	69	71.9	27	28.1
Right	54	56.3	42	43.8
NEA				
Ugly	72	75	24	25
Wrong	68	70.8	28	29.2
Bad	72	75	24	25
Sad	39	40.6	57	59.4
Stupid	61	63.5	35	36.5
Selfish	54	56.3	42	43.8
Naughty	51	53.1 (n)	45	46.9
Cruel	49	51 (n)	47	49
Mean	63	65.6	33	34.4
Unfriendly	74	77.1	22	22.9
Dirty	70	72.9	26	27.1
Sick	62	64.6	34	35.4

An examination of the data for all 96 subjects indicates that PEA's were more often associated with the lighter figure, and NEA's with the darker one. Considered statistically all of the PEA's, and all but three of the NEA's were significantly (.05) associated with the predicted figure. The three exceptions were "sad", "cruel", and "naughty". The NEA's "cruel" and "naughty" were not consistently associated with either figure. The NEA "sad" is the only one that was significantly more often associated with the Anglo figure. This is consistent with previous research.

DISCUSSION

Racial Attitude

The overwhelming pro-Anglo, anti-Chicano bias demonstrated by both the Anglo and the Chicano children shows a definite preference for light-skinned, light-haired figures. This preference was also seen in a previous study using the CRAM (Bernat and Balch, in press), and in extensive tests with the PRAM II. Table 7 compares RA $\bar{x}$'s using the PRAM II with Anglo, Black, Japanese, French, Italian, and German children, and RA $\bar{x}$'s using the CRAM with Chicano and Anglo children. These studies demonstrate a widespread preference for light-skinned figures. Williams et al. (1975) feels that a preference for "lightness" may have evolved from early childhood experiences with fear of the dark, that an anti dark-skin racial attitude is actually a generalization of a dislike for darkness in general. There does seem to be considerable evidence to support a preference-for-lightness hypothesis. Certainly our culture, and others, have frequently presented the light-skinned Anglo type as the type that is most preferred, and desired. Padilla and Ruiz (1973) found that even among Chicanos, those with lighter skin were preferred over their dark-skinned brothers in picture preference tests, and it seems that light-skinned Blacks are also preferred by Anglos and by members of their own race. Some of the subjects in the PRAM II study done in Japan (Iwawaki et al. 1976) had never even seen blacks, except perhaps on television, and yet they clearly expressed a preference for the light-skinned figures. The

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Table 7. RA x̄'s from the PRAM II and from the CRAM

| | | PRAM II Scores | | | | CRAM Scores | | | |
Subjects	Japanese	Euro-Americans	Afro-Americans	French	Italian	German	1978 Chicanos	Anglos	Present Chicanos
Ra x̄	15.52	18.66	14.18	15.85	16.50	16.30	17.2	17.4	15.74
SD	3.69	3.76	5.22	3.29	4.91	4.50	3.60	4.20	4.06
N	75	68	68	65	24	56	60	60	96
x̄ Chronological Age (months)	60.8	65.2	64.6	71.0	67.2	66.0	80	80	Approx. 88

[a]Data from Iwawaki et al. 1976 and Bernat and Balch, in press.

authors in that study also refer to the Japanese preference for the lighter skinned members of their own race. In the earlier study with the CRAM (Bernat and Balch, in press) this preference for lightness hypothesis received less emphasis than the more conventional proposition that it is the advantaged status of the light-skinned person which creates a high degree of pro light skin bias. The additional data presented by Iwawaki et al. (1976), however, lends additional support to this preference-for-lightness hypothesis.

If a generalized dislike for darkness is indeed a major factor underlying anti dark-skinned people bias, then it becomes our task to explore ways to alter that process. We could, for example, attempt reversing this process through discrimination training which would conceptually differentiate between the darkness of people's skin and the darkness that people fear. It is possible that positive early experiences with dark-skinned people, and early and frequent exposure to dark-skinned people positively represented in the media, in school texts and in positions of authority would reverse the generalization. Table 7 shows that the Afro-Americans have somewhat accomplished this separation. Since it is assumed that black children have as many early negative associations with the dark as others, then the lower pro-white, anti-black bias demonstrated by this group could be interpreted as a greater appreciation for dark-skinned people. It may be true that being dark-skinned themselves has forced them to discriminate between fear of the dark and dislike of dark skin. Nevertheless, their lower RA scores illustrate that the two concepts can be separated. The fact

that the black children are biased at all can certainly be explained in terms of a preference for the many advantages that whites enjoy in this society, and an acceptance of the values of the dominant culture.

For this author, however, the most significant aspect of the anti-Chicano bias demonstrated by the Chicano children is that it is seen as evidencing a rejection of their racial heritage, and a basic identity conflict. If a child views his "roots" as being inferior he is handicapped in developing a strong, confident and effective sense of himself. Nava (1973) says that "No man can find a true expression for living who is ashamed of himself or his people" (p. 124).

Sex of Subject Effects

Although there are no main sex effects, results did demonstrate a trend showing the male Chicano children to be more A + Ch - biased than the females. Although the overall difference did not reach significance on the ANOVA, an examination of the scores at the higher end of the scale (RA scores of 17 or more, the area of definite A + Ch - bias) did show a significant difference, with male subjects demonstrating greater bias than females (p < .02). Williams (1971b) using the PRAM II showed that black and white male subjects showed significantly more pro-white, anti-black bias than females. His later study however, (Williams et al. 1975) did not demonstrate a significant sex difference. Bernat and Balch (in press) using the CRAM with Anglo and Chicano children demonstrated a trend showing male subjects to be more A + Ch - biased than females. These results are sufficiently inconclusive as to warrant further investigation of this factor to determine

under what conditions, if any, male children demonstrate greater anti-minority bias than females. Bernat and Balch (in press) suggest that males, who have a culturally greater need to achieve, are demonstrating a higher degree of aversiveness to the underprivileged status of the racial minority.

Effects of Educational Program

The bilingual educational program as administered in the schools used in this study had no effect on RA scores. The children in these programs were just as anti-Chicano biased as the children in the traditional programs. One explanation is that the bilingual programs in this study were basically operating under the philosophy of cultural assimilation, and that the children in both programs were actually learning that the higher status is in the English language and the Anglo culture. If this is so, the Chicano child may be seen as caught in an immobilizing double bind. On the one hand he wants to identify with the higher status group as indicated by his A + Ch - bias, on the other hand, however, he can't give up his identity as a Chicano without inviting feelings of being unacceptable. It may even be that the Chicano child is acting out these feelings in poor school performance and delinquent behavior.

Attempts to completely assimilate the Chicano into the Anglo culture have failed up to now, and the results of this research indicate that a bilingual program directed towards cultural assimilation may be able to show only limited results. The Chicano minority is a unique one. Its basic identity is tied up in a dual heritage

(Nava 1973). It is an American-ethnic minority with its roots and its history planted firmly in two nations. Chicanos are viewed as foreigners in their own land (Dunn 1975 and Tyler 1975) even though some Chicanos can date their American ancestry back further than some Americans. In addition to their status as an ethnic minority Chicanos are also a racial minority. Both Mexican Americans (Dworkin 1965) and Anglo Americans (Simmons 1961) view Chicanos as dark skinned, and Dunn (1975) estimates that anywhere from 75 to 95 percent of Chicanos can claim some Indian ancestry. It is the unique character of this group that makes it impossible for them to be absorbed into the dominant culture, but it is also this uniqueness which has much to offer to the dominant culture. It may be that a bilingual program based in some generally acceptable way on the philosophy of cultural pluralism would be the most effective way to provide a mutually enriching experience. This approach would present both languages and both cultures as being of equal value. Hopefully it would provide integration with respect for the Chicanos, and a broader education for the majority group students. Dunn (1975) also rejects the possibility of complete assimilation, and underlines the importance of exploring cultural pluralism. He emphasizes a need for accommodation when he says of the Chicano-Anglo situation that "Two permanent cultures exist together exerting continual influences on one another. This situation will remain a fact of life into the foreseeable future" (p. 109).

Effects of the Ethnic Distribution
of the Schools

Although both groups demonstrated an A + Ch - bias, the ANOVA showed that the subjects in the predominantly Mexican American schools were significantly less A + Ch - biased than the subjects in the schools with a minority Mexican American enrollment ($p < .039$). At first glance these data might seem to support the contention of the separationists (Padilla 1976) who hold that only through segregation can the Chicano children come to have a positive view of their own race. This isolationist view, however, does not consider the position of a majority of Chicanos who think of themselves as Americans, and desire and expect to be seen as such by other Americans (Dunn 1975). Rather than espousing a separatist position these results might be seen as supporting the idea that it is the status of the Chicano culture and language as experienced by the children in the schools, rather than the type of educational program, that has the greater influence on how Chicano children view their own race. It is assumed that the children in the predominantly Mexican American schools were part of a majority who shared the same ideas and language, and were therefore better able to value their own race and to demonstrate less anti-Chicano bias.

Race of Examiner Effects

There were no main examiner effects, but the data on Table 4 do demonstrate a tendency for the subjects to show less bias with the Chicana examiners. This tendency, however, seems to be influenced by other factors, such as the sex of the subject, the educational program,

and whether or not the school is predominantly Mexican American. Table 5 shows the effects of these interactions on RA $\bar{x}$'s. Williams et al. (1975) demonstrated that both black and white children showed greater pro-white bias with white examiners. It is evident that this factor also bears further investigation. It does seem that interacting with a high status minority figure might produce less anti-minority bias, but the data indicate that the effects of this influence need to be studied in the context of other factors. Further research might examine, for example, the effects of sex and race of examiner in combination with sex and race of subject to better assess some of the factors that determine how racial attitude is affected by the race of the examiner. It is also possible that the lack of examiner effects may simply demonstrate that a one-shot exposure to a minority member "model," as occurs in the administration of the CRAM, is not sufficient to affect racial attitudes. It may be that the effects of a high status model require repeated exposure over time in order to influence racial bias.

Standardization

Standardization data revealed that the CRAM has good internal consistency, and that the instrument may be divided into two equivalent short forms for test-retest purposes. It was also noted that the racial attitude means (RA $\bar{x}$'s) in this study were very similar to the RA $\bar{x}$'s of the previous study using the CRAM (Bernat and Balch, in press), indicating some consistency in the instrument.

Concluding Summary

In this research Chicano children, using the CRAM, demonstrated an overwhelming pro-Anglo, anti-Chicano bias. This bias was interpreted to indicate a rejection of their own racial heritage, and a basic identity conflict. The degree of anti-Chicano bias was not affected by exposure to a bilingual program. The author suggested that, in order to be effective in upgrading the educational level of Chicanos, bilingual programs may have to alter their approach so that the Chicano language and culture are not presented in a lower status position. Programs based in some way on the philosophy of cultural pluralism were suggested as a possible alternative approach to bilingual education.

Results of this study also showed that Chicano children in schools which were predominantly Mexican-American in enrollment demonstrated significantly less anti-Chicano bias than subjects in schools where Mexican Americans were a minority. These results were taken as further evidence that an environment which respects and accepts Chicano values is likely to provide Chicano children with a more positive evaluation of their own race. Evidence was presented to support the proposition that, for Chicano children, a positive evaluation of their own racial heritage is essential to a successful school, and life, experience.

APPENDIX A

GENERAL TESTING INSTRUCTIONS

The experimenter first checks with the director of the school and the individual classroom teacher to make sure that testing is agreeable at this time, to explain the desired number and sequence of students, and to establish the area that will be used for testing. After arranging the materials in the testing area, the experimenter goes to the classroom to pick up the child designated by teacher. Each child is individually taken to the testing room, and back to his classroom at the completion of the test.

To begin the testing session the experimenter chats briefly with the child. This chat includes asking the child his name, his age, his birthday, the names and sex of his siblings, and whatever else the experimenter deems appropriate. If the child is not able to respond to these questions, his responses cannot be considered valid for this study. In that case the experimenter shows the child enough of the pictures so that he will not feel that he has performed poorly. The experimenter must be aware that "appropriate" responses at this age vary widely. The child's information is not assumed to be correct, and must be checked later with the teacher or the office. The experimenter is only interested in establishing rapport and in determining whether the child understands him.

To the Experimenter:

1. Read the CRAM instructions verbatum.

2. Don't rush the child, but go at a pace where he can retain interest without becoming bored.

3. Be careful not to give any cues to the child.

4. No reinforcement is given after a response, other than to acknowledge the response by saying "Um Hum" or "okay." If a child asks if he answered correctly, tell him there are no right or wrong answers, and you just want to know what he thinks.

5. If a response is unclear, make sure the child doesn't think he was incorrect when you ask him to repeat the response. If more than one response is given, repeat the story and the question, and take the child's final response.

6. A response must be secured for each CRAM question. Do not record a "Don't know" or a "No response." If the child hesitates, say "Try one," or "Point to one of them."

7. If there are any irregularities during the testing session which may invalidate that test, note these on the answer sheet.

CRAM Opening Instructions. "What I have here are some pictures I'd like to show you and some stories that go with each one. I want you to help me by pointing to the person in each picture that the story is about. Here, I'll show you what I mean. . . ."

Closing. "Thank you for playing these games with me."

APPENDIX B

CRAM ANSWER SHEET

Subject_____ . Date_____

DOB_____ Age_____ Race_____

Tested at _____ Experimenter_____

Series administered first_____

Responses: Circle the one that is chosen L = Left, R = Right

	Series A				Series B	
1	L	R		19	L	R
2	L	R		20	L	R
3	L	R		21	L	R
4	L	R		22	L	R
5	L	R		23	L	R
6	L	R		24	L	R
7	L	R		25	L	R
8	L	R		26	L	R
9	L	R		27	L	R
10	L	R		28	L	R
11	L	R		29	L	R
12	L	R		30	L	R
13	L	R		31	L	R
14	L	R		32	L	R
15	L	R		33	L	R
16	L	R		34	L	R
17	L	R		35	L	R
18	L	R		36	L	R

The underlined response is the "correct" one and is given a value
of +1.

RA Score: Total _____

             Series A _____

             Series B _____

             Odd numbered items _____

             Even numbered items _____

SR Score: Total _____

Comments/Observations _____

_____

_____

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