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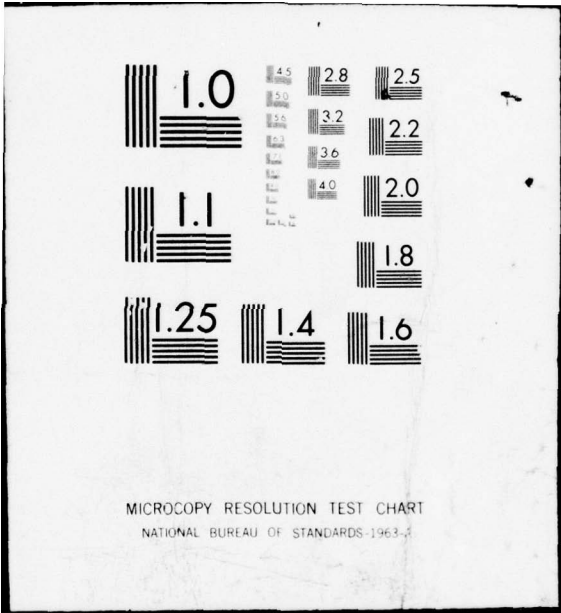
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The work reported herein is part of an ongoing investigation into the psychodynamics and development of biculturalism among Mexican Americans. The research is based on recent theoretical developments which suggest that a cultural identity need not be exclusive. Instead, a person may develop in such a way as to make possible identification with more than one culture and in the process acquire a wide range of competencies and cont.		

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sensitivities. If so, biculturalism could prove a highly significant asset with regard to development of the levels of intra- and inter-personal sophistication required of persons who staff settings characterized by ethnic diversity, complex team work, and recurrent problems of a human relations nature. The bicultural person may be a superior candidate for a variety of organizational and social roles. Confirmation of this possibility awaits development and validation of a comprehensive instrument for measuring biculturalism and, more specifically, particular personality, life history, and behavioral correlates of biculturalism that predict career and leadership potential in different settings, personal and social adjustment in those settings, and satisfaction in living. Initial efforts at developing an instrument suited to this purpose are summarized in this report.

A selection instrument for identifying bicultural persons was developed from intensive interviews of a small sample of bicultural adults. Revisions and refinements, combined with field testing, yielded a three part instrument suited to identifying individuals' exposure to, or involvement in, primary institutions (family, religion, politics, education) of Chicano and Anglo cultures.

Items of the inventory were presented in a Likert-type format such that responses could be coded from 1 to 5, 1 indicating a primarily Chicano orientation, 5 indicating a primarily Anglo orientation, and 3 indicating Chicano and Anglo (or Spanish and English) about equal.

Simple frequencies and relative percentages could be calculated for each response type (1 through 5) to show the distribution of responses for each subject. Bicultural individuals could be identified as those whose response distribution had a high degree of symmetry and/or a high frequency of choice 3 responses. This would identify a developmental path: those with a high frequency of choice 3 responses had exposure to Anglo and Chicano sociocultural systems throughout most of their lives; those whose patterns of responses exhibited more even distributions were reared in one of the two cultures and later exposed to the other.

The instrument was administered to 402 Mexican American college students in California. Split-half reliability indicated rather high stability: reliability coefficient of .7925 reached a significance level of  $p < .001$ .

Forty of the 402 subjects, in turn, were identified as bicultural and data from the selection questionnaire for this sample of 40 is summarized in this report. The results indicated that the instrument will be an effective tool to identify bicultural individuals in a short period of time.

Further research will seek to refine and validate the inventory. The next steps in this research will also include investigation of personality flexibility, leadership and inter-ethnic competencies of individuals identified as biculturals.



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## INTRODUCTION

The work reported here is part of an investigation into the psychodynamics of biculturalism in Mexican American college students. Underlying this project is the belief that a person may develop in such a way as to make possible identification with more than one culture and in the process acquire a wide range of competencies and sensitivities. Biculturalism could be a highly significant asset with respect to development of the levels of intra- and inter-personal sophistication required of people who staff settings characterized by ethnic diversity, complex team work, and recurrent problems of a human relations nature. The bicultural person may be a superior candidate for a variety of organizational and social roles.

The concept of cognitive styles is particularly meaningful in the investigation of biculturalism due to the seemingly strong relationship between culture and development of cognitive styles (referring to differences with regard to preferred modes of processing information, or organizing, classifying, assimilating, and responding to the environment). Whereas some cultures foster development of a field sensitive cognitive style, others foster development of a field independent cognitive style (Witkin and Berry, 1975; also Witkin et al., 1975). Furthermore, research by Ramirez and Castañeda (1974) has shown that bicultural Mexican American children can shift from one cognitive style to another,

or avail themselves of behaviors or perceptual modes from two styles as the characteristics of the tasks they are given change during the course of the school day.

This research project is designed to examine in detail individual patterns of bicultural development and bicultural functioning that may contribute to cognitive or personality flexibility, including leadership effectiveness and interethnic skills.

Drawing from biographical information and test data, we expect to identify various ways in which different socialization and life experiences contribute to development of biculturalism. Other efforts within this investigation focus on identifying personality characteristics of bicultural individuals and investigating the relationship of biculturalism to personal interethnic skills, leadership effectiveness variables, and cognitive styles flexibility. Another result that may emerge from these examinations is construction of profiles that represent several bicultural typologies that would reflect specific historical/biographical patterns of becoming bicultural and highly correlated characteristics of personality, skills, and capabilities.

The first part of this effort is essentially the development of a biculturalism inventory, an instrument to identify individuals who have had high degrees of bicultural experience.



## BACKGROUND

### Conflict/Replacement Models

Personality development of minority group members has generally been conceptualized according to a model of conflict and replacement: The pertinent sociocultural systems are viewed as being incompatible, supposedly resulting, therefore, in conflict and eventually in the replacement of values, belief systems and coping behaviors of one culture with those of another.

One early conceptualization based on the conflict/replacement model was proposed by Stonequist (1937) who referred to members of minority groups as "marginal." Stonequist's central theme is reflected in the following statement:

"The marginal man as conceived in this study is one who is poised in psychological uncertainty between two (or more) social worlds, reflecting in his soul the discords and harmonies, repulsions and attractions of those worlds . . ."

According to Stonequist, the "life-cycle" of marginal man follows three stages: 1) positive feelings toward the host culture; 2) conscious experience of conflict; and 3) responses to the conflict, which may be prolonged and more or less successful in terms of adjustment. Furthermore, the third stage may encourage the individual to adopt one of three roles: 1) nationalism--organization of a collective movement to raise the status of the group; 2) intermediation--bringing the two cultures closer to promote accommodation; and 3) assimilation. Although Stonequist commented on the possibility that some of these situations or

conditions might result in creativity, citing the case of the Jewish people, for the most part his model focused on conflict and implied that the only "healthy" resolution is assimilation into the dominant culture.

Another conceptual framework of the conflict genre was proposed by psychologist Irving Child (1943), who focused on young adult male second generation Italian-Americans in New Haven. Child observed that his subjects' socialization occurred within a dual cultural context, Italian and American. In describing the conflict he observed in these subjects, Child suggested a framework based on three types of conflict reaction: 1) the rebel reaction--behaviors indicating desire to achieve complete acceptance by the American majority group and to reject Italian associations; 2) the in-group reaction--behaviors indicating desire to actively participate in and identify with the Italian group; and 3) the "apathetic reaction"--a retreat from conflict situations and avoidance of strong "rebel" and "ingroup" behaviors.

The apathetic reaction, according to Child, could be observed in the individual making a partial approach toward both cultures in an effort to find a compromise as solution to the conflict. It is interesting to note that Child chose to view this attempt at adjustment as "apathetic."

In addition to the central role given to conflict in the

Stonequist and Child models, a notion of cultural replacement was implied. While a simplification, the models could be described as viewing the minority group member positioned on a continuum between two cultural poles--a linear model. As the individual becomes more identified with one of the cultures, he moves away from the other culture, replacing values and lifestyles of one with those of the other.

Somewhat more recently, Madsen subscribed to the conflict/replacement model when interpreting observations he made of young adult Mexican Americans in south Texas. "The Alcoholic Agringado" describes traumas of cultural transfer in acculturating Mexican American males. Madsen depicts the Mexican American as standing alone between two conflicting cultural worlds and resorting to alcohol for anxiety relief.

#### Focus on Ethnic Identity

The influence of the conflict/replacement model on the direction of research on ethnic experiences in America can be seen in the emphasis on ethnic identity. Questions addressed were "Who is the real Chicano? the real Black? Jew? Native American?" Elaborate ethnic identity scales were developed (Segalman, 1968; Teske and Nelson, 1973; Zak, 1973) which usually deemphasized intracultural diversity, and did not attend to issues of bicultural functioning. Some of these ethnic identity instruments also tended to confound political attitudes with ethnic identity: They not only sought to determine whether a person identified

with the values and belief systems of a culture, but also if the person supported the political and social struggles in which these groups were engaged. Furthermore, these instruments reflected the assumption that cultural "transfer" occurs only in the direction of identification with the dominant culture without considering possibilities of bicultural or multicultural functioning.

The overriding concern with ethnic identity encouraged a negative view of dual cultural membership with regard to personality development and functioning: marginality, identity confusion, identity crisis, and incompatible personalities were disproportionately hypothesized and described.

#### Multicultural Models

Conflict/replacement models have been challenged in recent years by several newly described viewpoints. Valentine (1971), for example, has argued that many Blacks are simultaneously committed to both Black and mainstream culture; he observes that the two sociocultural systems are not mutually exclusive as is commonly assumed by those subscribing to a cultural difference argument.

McFee (1968) in an article entitled "The 150% man, a product of Blackfeet acculturation," concludes that among Blackfeet Indians living in a bicultural reservation community, Indian behaviors having a continuing utility, are not replaced by

white behaviors, but are retained in the person's behavioral repertoire. McFee observed that the bicultural reservation community provides a variety of roles and situations which encourage and reinforce the use of both Indian and white behaviors. To assess degree of involvement in the two sociocultural systems, McFee developed a measure of Indian orientation and measure of involvement in white culture. To describe the biculturalism of his subjects, McFee developed a two dimensional matrix, the vertical axis representing Indian orientation (as indicated by knowledge of Blackfeet language, religious beliefs and lore, participation in ceremonies, dances, and songs, etc.) and the horizontal axis representing white orientation (as indicated by behaviors indicative of knowledge of American mainstream culture).

Fitzgerald (1971) in reporting his work with Maori university graduates describes extensive "shuttling" by his subjects as they moved between the European and Maori cultures. Fitzgerald sets forth the concepts of social and cultural identity: He describes a compartmentalization reflected in the behavior of his subject that he observed as being appropriate to either the Maori or European cultures depending on setting, interaction and expectation. Although his Maori subjects participated effectively in European functions and activities (social identity), according to Fitzgerald their cultural identity was still Maori. From his observations, Fitzgerald concludes that acculturation

is not a linear process but a complex set of experiences and behaviors in which individual choice is a critical determinant.

Yet another interesting discussion of multicultural functioning is that by Peter Adler (1974) who describes a fluidity brought about by the multicultural experience. Adler's multicultural man is ever in transition--values, beliefs, attitudes and world views are relevant only to given situations and are continually evolving and being reformulated through experience. He describes the multicultural person as one who can transcend national and cultural boundaries and identities. This person according to Adler is psychoculturally adaptive, demonstrates a high level of intercultural understanding, and has a vision of the world as a global community.

These latter conceptions of biculturalism/multiculturalism, along with findings we obtained on research we have done with bicultural school children (Ramirez and Castañeda, 1974), were parts of the impetus for the current investigations into the psychodynamics and development of biculturalism in Mexican American college students. The earlier research with school children indicated that the bicultural children were usually bilingual and spoke English or Spanish spontaneously, responding to social and cultural stimuli of specific situations. These children demonstrated positive attitudes toward Anglo and Chicano cultures. Furthermore, the bicultural children were identified as being more flexible in behavior in responding as certain

situations or tasks suggested. These indications led us to plan investigation of the process(es) of bicultural development, and the effects of diversity of experience on abilities and behaviors in adult bicultural persons. The first step of this investigation, the development of means to identify bicultural individuals, is described below.

#### PROCEDURE

##### Development of the Inventory

Initial extensive interviews (4 to 6 hours each) were conducted with four university Mexican American students. Two of these were identified by the investigators and by two independent consultants as being very bicultural and two were identified as being minimally bicultural. These identifications were based on a) degree of bilingualism; b) frequency of intra- and inter-ethnic friendships; c) positive inter-ethnic attitudes; d) comfortable functioning in a variety of situations regardless of ethnic setting; e) acceptance by both Chicanos and Anglos.

These interviews generated information used for initial biculturalism inventory construction both by indicating dimensions that seemed to discriminate between high and low bicultural individuals and by suggesting relevant content.

A pool of items was then developed based on the interview information, information derived from earlier investigations, and

items from related instruments (Ramirez, 1967; also, Teske and Nelson, 1973). The questionnaire was then "assembled," pilot tested, reviewed by external consultants, and revised. The procedure was repeated three times. The resulting questionnaire consisted of three parts: demographic information, personal history, and bicultural participation. Among the dimensions included in the latter two areas are socialization and educational experiences, interpersonal interactions and experiences in situations related to school, political, athletic, religious, family and recreational spheres.

An important design requirement was that the inventory draw sufficient variance in overall scores of biculturalism to allow identification of high and low biculturals. Items were presented in a Likert-type format such that responses could be coded from 1 to 5, 1 indicating a primarily Chicano orientation, 5 representing a primarily Anglo oriented response, and 3 indicating Chicano and Anglo (or Spanish and English) about equal. (See copy of inventory in appendix.)

Sample items:

X. My childhood friends who visited in my home and related well to my parents were

- 1. All Chicanos
- 2. Mostly Chicanos
- 3. Chicanos and Anglos, about equal
- 4. Mostly Anglos
- 5. All Anglos

- - - - -



Y. When I write poetry or other personal material, I  
write in

- 1. Spanish only
- 2. Mostly Spanish
- 3. Spanish and English, about equal
- 4. Mostly English
- 5. English only

Simple frequencies and relative percentages could be calculated for each response type (1 through 5) to show the distribution of responses for each subject. Bicultural individuals could thus be identified as those whose response distribution had a high degree of symmetry and/or a high frequency of choice 3 responses, (Chicanos and Anglos about equal).

Example of distribution of responses for an individual subject:

Response type number	1	2	3	4	5
% of total responses	15%	21%	38%	17%	9%

The questionnaire was administered to 402 Chicano college students, male and female, in southern, central, and northern California. Administration sites included private colleges, one University of California campus, two California State University campuses, and three community colleges. It was intended that this would assure diversity in geographic region, SES, age, career goals, early education experience, etc.

## INTERNAL CONSISTENCY, RELIABILITY

In addition to the scores for items, an overall score was calculated by weighting each score according to the number of the response and summing over non-demographic items. This allowed testing of internal consistency of items with each other as well as providing an index of reliability of the scale. Split-half test for reliability was used by halving the scale and correlating. This was selected over the more conventional odd-even item approach for stringency. The result of this indicated a high level of reliability and internal consistency. Reliability coefficient of .7925 reached significance level of .001, indicating rather high stability.

### Split-Half Test for Reliability

Variable	N	Mean	SD	Reliability Coefficient	Significance
Score, First Half	402	293.0623	52.67	.7925	p<.001
Score, Second Half	402	277.2529	53.31		

## RESULTS

From the 402 subjects, another sample of subjects identified as probable high biculturals on the basis of questionnaire results was selected for screening preliminary to participation in the second part of the study. Forty of those screened were selected for further participation. (This included intensive life history interviews as well as measures of leadership potential and

flexibility, cognitive preference, values, personality, bilingualism, and philosophy of human nature.) Descriptive statistics from the demographic information and the average relative percentages in responses on other questionnaire portions for the 40 high biculturals are given on the following pages.

Demographic characteristics of 40 bicultural subjects

	<u>Male Ss n=23</u>	<u>Female Ss n=17</u>
<u>1. Place of Father's Birth</u>		
U.S. Southwest	39.1%	56.3%
Mexico	47.8	37.5
U.S. Other	13.0	6.3
<u>2. Place of Mother's Birth</u>		
U.S. Southwest	43.5%	47.1%
Mexico	56.5	41.2
U.S. Other	∅	11.8
<u>3. Father's Education</u>		
Less than high school	66.7%	52.9%
Some high school	14.3	5.9
High school graduate	4.8	29.4
Some college	9.5	11.8
College graduate/beyond	4.8	∅
<u>4. Mother's Education</u>		
Less than high school	70.0%	52.9%
Some high school	10.0	11.8
High school graduate	5.0	17.6
Some college	10.0	11.8
College graduate/beyond	5.0	5.9
<u>5. Community in Which Subject was Reared</u>		
Rural	19.0%	19.8%
Urban	33.3	62.5
Semi-rural	19.0	∅
Semi-urban	28.6	18.8
<u>6. Location of Community in Which Subject was Reared</u>		
California	43.5%	58.8%
Mexico	8.7	5.9
U.S. Other	17.4	∅

Female Ss n=17

Male Ss n=23

7. Permanent Home of Subjects

Mexico	∅	∅
California	91.3%	100%
U.S. Other	8.7	∅

8. Ethnicity of Subject's Spouse

Chicano	8.7%	∅
Anglo	4.35	∅
Other	4.35	5.9%
Unmarried	82.6	94.1

9. Subject's Religious Affiliation (Present)

Catholic	81.8%	75.0%
Protestant	4.5	6.3
Jewish	∅	∅
Other	4.5	6.3
None	9.1	12.5

10. Subject's Religious Affiliation (Past)

Catholic	93.3%	81.8%
Protestant	∅	9.1
Jewish	∅	∅
Other	6.7	9.1
None	∅	∅

11. Language(s) Spoken by Subjects

Spanish	∅	∅
English	8.7%	11.8%
Spanish-English	87.0%	88.2%
Spanish and Other	∅	∅
English and Other	∅	∅

Female Ss n=17

Male Ss n=23

12. Language(s) Spoken at Home by Subjects

Spanish	27.3%	17.6%
English	40.9	41.2
Spanish-English	31.8	41.2
Spanish and Other	∅	∅
English and Other	∅	∅

13. Father's Language(s)

Spanish	18.2%	23.5%
English	∅	5.9
Spanish-English	77.3	70.6
Spanish and Other	∅	∅
English and Other	∅	∅

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14. Mother's Language(s)

Spanish	30.4%	23.5%
English	∅	∅
Spanish-English	69.6	76.5
Spanish and Other	∅	∅
English and Other	∅	∅

15. Language(s) Usually Spoken at Home by Parents

Spanish	63.6%	52.9%
English	13.6	23.5
Spanish and Other	22.7	23.5
Spanish and Other	∅	∅
English and Other	∅	∅

Parents' Occupations

	<u>Males</u>		<u>Females</u>	
	<u>Father</u>	<u>Mother</u>	<u>Father</u>	<u>Mother</u>
1. Farm laborer	13.6%	- %	17.6%	- %
2. Unskilled manual worker	31.8	18.2	17.6	5.9
3. Semi-skilled manual worker	-	4.5	11.8	5.9
4. Skilled manual worker	18.2	9.1	29.4	-
5. Farm owners or managers	-	-	-	-
6. White collar	9.1	13.6	5.9	17.6
7. Small business	4.5	-	5.9	-
8. Professional	-	4.5	-	5.9
9. Large business	-	-	-	-
10. Housewife	-	27.3	-	41.2
11. Cannery worker	4.5	13.6	-	-
12. Unknown or no response	13.6	4.5	5.9	5.9
13. Unemployed	-	-	5.9	5.9
14. Multiple occupations	4.5	4.5	-	11.8
15. Armed forces	-	-	-	-

Several other specific findings merit comment: The majority of the subjects indicated that in elementary school (50%) and high school (55.6%) their close friends were about equal, Chicanos and Anglos, regardless of the ethnic composition of the school and community, though the data indicated much greater diversity in school and community composition. Also, most subjects (56.8%) indicated that the people with whom they had established close/meaningful relationships were about equal, Chicanos and Anglos. On the other hand, responses to items concerning subjects' parents (such as parents' close friends, subjects' friends who relate(d) well to their parents, attending functions with parents, etc.) almost invariably fell in choices 1, 2, or 3, i.e. heavily in the Chicano direction.

#### Biculturalism Scores

The relative percentages of responses of 1, 2, 3, 4, and 5, for males and females are given below. Males tended to choose response number 3 more frequently than females. Both males and

#### Distribution of Subjects' Responses

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Response Choice		1	2	3	4	5
Males	$\bar{X}\%$	10.96%	20.04%	41.22%	19.35%	8.83%
n=23	SD	7.37	11.36	5.72	10.89	5.77
Females	$\bar{X}\%$	10.59%	22.47%	35.65%	20.12%	11.12%
n=17	SD	8.86	9.94	7.40	12.58	3.93

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females chose responses 1 and 2 (the Chicano direction) only slightly more often than they did 4 and 5. While choice 3 may have been a socially desirable response in some cases, it is notable that as an average it was chosen 41% of the time by males and 36% of the time by females, indicating that social desirability was probably not a strong influence.

#### CONCLUSION

The results of this preliminary research indicate that the inventory can identify bicultural Mexican Americans. The instrument can also be used to identify different developmental paths followed by persons who are bicultural. More specifically, people who frequently selected the middle choice (Chicanos and Anglos, about equal) have had exposure to Anglo and Chicano sociocultural systems throughout most of their lives; on the other hand, people whose patterns of responses exhibited more even distributions were reared in one of the two cultures and later exposed to the other. It will be interesting as our research progresses to see if these different paths of development are associated with different profiles of biculturalism.

The inventory also seems to reflect the complexity of biculturalism. The ethnic identity instruments provided a very simplistic picture that went along with a linear model of acculturation. Yet our pilot life history research would support the conclusions of McFee (1968) and Fitzgerald (1971) that biculturalism is very complex and cannot be adequately represented

by a linear model. An advantage offered by the present inventory is that it can indicate different degrees of biculturalism in different domains of life. That is, while some subjects were bicultural in the family domain, because they had interacted extensively with Anglo, Mexican, or Chicano families, others were only bicultural in the educational domain, the political domain, or some other specific sphere.

The next efforts of this research are directed toward analyzing intensive life histories from the 40 subjects and collecting additional data, including the California Psychological Inventory, Rokeach Values, a measure of cognitive preference and bicognitive functioning, leadership flexibility and potential, bilingual free association, and philosophy of human nature.

Future research efforts with the biculturalism inventory will be directed toward the following objectives: 1) determine which items are most effective in differentiating between high and low bicultural individuals and eliminate items of low discriminatory power; 2) determine the relative degree of effectiveness of the demographic, socialization, and interpersonal/interethnic experience areas of the inventory to identify bicultural individuals; 3) sort items according to validated domains of functioning to allow for scale scores; 4) administer the instrument to new groups of people to identify high and low bicultural individuals of other ethnic groups, and then gather life histories and other data for external validation; 5) gather

additional data on interethnic skills, leadership and other variables of interest to investigate correlations between these and bicultural functioning and development.

We feel that the inventory will eventually be an effective tool to identify bicultural individuals in a short period of time. This information can at the very least give a quick picture of the degree of involvement a person has had with cultures other than his own. It should further be useful for predicting how successful an individual might be in participating in or leading groups of mixed ethnic composition.

#### REFERENCES

- Adler, P.S. Beyond cultural identity: reflections on cultural and multicultural man. Richard Brison (Ed.) Topics in Culture Learning. Hawaii: East West Culture Learning Institute Vol. 2, 1974.
- Child, I.L. Italian or American? The Second Generation in Conflict. New Haven: Yale University Press, 1943.
- Fitzgerald, T.K. Education and identity--a reconsideration of some models of acculturation and identity. New Zealand Council of Educational Studies, 1971, 45-57.
- Madsen, W. The alcoholic agringado. American Anthropologist. 1964, 66, 355-361.
- McFee, M. The 150% man, a product of Blackfeet acculturation. American Anthropologist. 1968, 70, 1096-1103.
- Ramirez, M. III Identification with Mexican family values and authoritarianism in Mexican-Americans. Journal of Social Psychology, 1967, 73, 3-11.
- Ramirez, M. III and Castañeda, A. Cultural Democracy, Bicognitive Development and Education. New York: Academic Press, 1974.
- Segalman, R. Jewish identity scales: A report. Jewish Social Studies. 1968, 29, 92-111.
- Stonequist, E. The Marginal Man: A Study in Personality and Culture Conflict. New York: Scribner's 1937.
- Ten Houten, W.D. Cognitive styles and the social order, Final Report, Part II, O.E.O. Study B00-5135, "Thought, race and opportunity," Los Angeles, California. 1971.
- Teske, R. and Nelson, B.H. Two scales for the measurement of Mexican-American identity. International Review of Modern Sociology. 1973, 3(2), 192-203.
- Valentine, C.A. Deficit, difference, and bicultural models of Afro-American behavior. Harvard Educational Review, 1971, 41, (2) 137-157.
- Witkin, H.A. and Berry, J.W. Psychological differentiation in cross-cultural perspective. Journal of Cross-Cultural Psychology, 6, (1) 1975, 4-87.

Witkin, H.A., Price-Williams, Bertini, Christiansen, Oltman, Ramirez, and Van Meel. Social conformity and psychological differentiation. International Journal of Psychology, (Journal International de Psychologie). 1974, 9 (1), 11-29.

Zak, I. Dimensions of Jewish-American identity. Psychological Reports, 1973, 33, 891-900.

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APPENDIX A

Biculturalism Inventory

This questionnaire is part of a study being conducted to gain information about cultural interactions and socialization. We think that this study is a very important one because there is so little information available regarding cultural experiences for use in planning educational, community service, research, and training programs. We appreciate your time and cooperation in assisting us with this endeavor.

Some of the persons who answer the questions on these pages will be asked to participate in an interview to obtain follow-up information, and these persons will be compensated for their time. It is for this reason that we ask for your name and address. The information given in each questionnaire, however, will be held strictly confidential.



PART I

1. Name \_\_\_\_\_
2. Address \_\_\_\_\_
3. Phone (yours or one where messages could be left for you) \_\_\_\_\_
4. Age \_\_\_\_\_
5. Sex: M \_\_\_\_\_ F \_\_\_\_\_
6. Ethnic background \_\_\_\_\_
7. Date of birth \_\_\_\_\_
8. Place of birth: City \_\_\_\_\_  
State \_\_\_\_\_  
Country \_\_\_\_\_
9. School you now attend \_\_\_\_\_
10. Major \_\_\_\_\_ Minor \_\_\_\_\_
11. Class Standing (e.g. "Sophomore") \_\_\_\_\_
12. Present religious affiliation, if any \_\_\_\_\_  
Past religious affiliation, if any \_\_\_\_\_
13. How long have you lived in the U.S.? Years \_\_\_\_\_ Months \_\_\_\_\_
14. Have you lived in any country other than the U.S.? Yes \_\_\_\_\_ No \_\_\_\_\_  
If yes, what country? \_\_\_\_\_ Years \_\_\_\_\_ Months \_\_\_\_\_
15. Are you a resident of California? Yes \_\_\_\_\_ No \_\_\_\_\_  
If yes, how long? Years \_\_\_\_\_ Months \_\_\_\_\_
16. Have you lived in a state other than California? Yes \_\_\_\_\_ No \_\_\_\_\_  
If yes, which one(s)? \_\_\_\_\_ Years \_\_\_\_\_ Months \_\_\_\_\_
17. Where do you consider your home? \_\_\_\_\_
18. Where did you spend the first 15 years of your life? \_\_\_\_\_  
If more than one place, explain. \_\_\_\_\_  
\_\_\_\_\_
19. Approximately (in miles) how far is this city (town, community) from the Mexican border? (Circle one.)  
a) 0-100 b) 100-200 c) 200-300 d) 300-400 e) 400-500 f) more than 500
20. How would you describe this community? (Circle one.)  
a) rural b) urban c) semi-rural d) semi-urban

21. Where was your father born? State \_\_\_\_\_ Country \_\_\_\_\_
22. Where was your mother born? State \_\_\_\_\_ Country \_\_\_\_\_
23. What language(s) does your father speak? \_\_\_\_\_
24. What language(s) does your mother speak? \_\_\_\_\_
25. What language(s) do you speak? \_\_\_\_\_
26. For each language you speak, other than English, indicate your ability. Circle all that apply.

Language 1: _____	Language 2: _____
speak fluently            read	speak fluently            read
speak moderately        write	speak moderately        write
understand	understand

27. What language do your parents usually speak at home? \_\_\_\_\_
28. What language do you usually speak at home? \_\_\_\_\_
29. How many children, including yourself, are in your family? Males \_\_\_ Females \_\_\_
30. Parents' education: (Check one in each column.)

	<u>FATHER</u>	<u>MOTHER</u>
Less than high school	_____	_____
Some high school	_____	_____
High school graduate	_____	_____
Some college	_____	_____
College graduate or beyond	_____	_____

31. Father's occupation: (If retired, indicate former occupation.)  
\_\_\_\_\_
32. Mother's occupation: (If retired, indicate former occupation.)  
\_\_\_\_\_
33. Do you have relatives or close family friends who live in Mexico?  
Yes \_\_\_ No \_\_\_ If yes, where? \_\_\_\_\_
34. If you are married, what is the ethnic background of your spouse?  
\_\_\_\_\_
35. Please indicate your father's ethnic background. \_\_\_\_\_
36. Please indicate your mother's ethnic background. \_\_\_\_\_

37. What was the approximate ethnic composition of the high school you attended?

- 1. All Chicanos
- 2. Mostly Chicanos
- 3. Chicanos and Anglos, about equal
- 4. Mostly Anglos
- 5. All Anglos
- 6. Other (Specify.) \_\_\_\_\_

38. The ethnic composition of the neighborhood in which you grew up was

- 1. All Chicanos
- 2. Mostly Chicanos
- 3. Chicanos and Anglos, about equal
- 4. Mostly Anglos
- 5. All Anglos
- 6. Other (Specify.) \_\_\_\_\_

39. The ethnic composition of the neighborhood in which you now live is:

- 1. All Chicanos
- 2. Mostly Chicanos
- 3. Chicanos and Anglos, about equal
- 4. Mostly Anglos
- 5. All Anglos
- 6. Other (Specify.) \_\_\_\_\_

40. Your education has been:

- 1. All in the United States
- 2. Mostly in another country (Specify.) \_\_\_\_\_
- 3. Some in another country (Specify.) \_\_\_\_\_

41. How much contact have you had with people who have recently moved to the United States from Mexico?

1. Extensive     2. Frequent     3. Occasional     4. Some     5. None

42. Under each of the categories below, list organizations and clubs to which you have belonged:

- a) Social
- b) Fraternal
- c) Political
- d) Business and professional
- e) Other

43. At social gatherings, how frequently do you speak Spanish?

- 1. Always
- 2. Most of the time
- 3. Occasionally
- 4. Seldom
- 5. Never

44. When in public, how frequently do you speak Spanish?

- 1. Always
- 2. Most of the time
- 3. Occasionally
- 4. Seldom
- 5. Never

45. How often do you visit Mexico?

- 1. Very often (about once a month)
- 2. Often (several times a year)
- 3. Occasionally (once or twice a year)
- 4. Seldom (less than once a year)
- 5. Never

46. How often do you visit relatives and/or close friends in Mexico?

- 1. Very often (about once a month)
- 2. Often (several times a year)
- 3. Occasionally (once or twice a year)
- 4. Seldom (less than once a year)
- 5. Never

47. How often do relatives and/or close friends from Mexico visit you?

- 1. Very often (about once a month)
- 2. Often (several times a year)
- 3. Occasionally (once or twice a year)
- 4. Seldom (less than once a year)
- 5. Never

48. For pleasure or enjoyment, how often do you read books about: (Check all that apply.)

	Very often	Often	Occasionally	Seldom	Never
1. Mexican culture, history, etc.					
2. Chicano culture, history, etc.					
3. U.S. culture, history, etc.					
4. Spanish culture, history, etc.					
5. Other (Specify.) _____					

PART II

1. At present, my close friends are
  1. All Chicanos
  2. Mostly Chicanos
  3. Chicanos and Anglos, about equal
  4. Mostly Anglos
  5. All Anglos
  6. Other (Specify.) \_\_\_\_\_
  
2. In elementary school, my close friends were
  1. All Chicanos
  2. Mostly Chicanos
  3. Chicanos and Anglos, about equal
  4. Mostly Anglos
  5. All Anglos
  6. Other (Specify.) \_\_\_\_\_
  
3. In high school, my close friends were
  1. All Chicanos
  2. Mostly Chicanos
  3. Chicanos and Anglos, about equal
  4. Mostly Anglos
  5. All Anglos
  6. Other (Specify.) \_\_\_\_\_
  
4. The ethnic background of the people I have dated is
  1. All Chicanos
  2. Mostly Chicanos
  3. Chicanos and Anglos, about equal
  4. Mostly Anglos
  5. All Anglos
  6. Other (Specify.) \_\_\_\_\_
  
5. The people with whom I have established close and meaningful relationships have been
  1. All Chicanos
  2. Mostly Chicanos
  3. Chicanos and Anglos, about equal
  4. Mostly Anglos
  5. All Anglos
  6. Other (Specify.) \_\_\_\_\_

6. When I am with my friends, I attend functions where the people are  
(Check all that apply.)

- 1. All Chicanos
- 2. Mostly Chicanos
- 3. Chicanos and Anglos, about equal
- 4. Mostly Anglos
- 5. All Anglos
- 6. Other (Specify.) \_\_\_\_\_

7. At most of the functions I attend with my parents, the people are

- 1. All Chicanos
- 2. Mostly Chicanos
- 3. Chicanos and Anglos, about equal
- 4. Mostly Anglos
- 5. All Anglos
- 6. Other (Specify.) \_\_\_\_\_

8. My parents' close friends are

- 1. All Chicanos
- 2. Mostly Chicanos
- 3. Chicanos and Anglos, about equal
- 4. Mostly Anglos
- 5. All Anglos
- 6. Other (Specify.) \_\_\_\_\_

9. When I was a child, my parents taught me the history of

- 1. Mexico only
- 2. Mostly Mexico
- 3. Mexico and the United States, about equal
- 4. Mostly the United States
- 5. the United States only
- 6. Another country (Specify.) \_\_\_\_\_
- 7. None of the above

10. In school I learned the history of

- 1. Mexico only
- 2. Mostly Mexico
- 3. Mexico and the United States, about equal
- 4. Mostly the United States
- 5. the United States only
- 6. Another country (Specify.) \_\_\_\_\_
- 7. None of the above

11. My childhood friends who visited in my home and related well to my parents were
- 1. All Chicanos
  - 2. Mostly Chicanos
  - 3. Chicanos and Anglos, about equal
  - 4. Mostly Anglos
  - 5. All Anglos
  - 6. Other (Specify.) \_\_\_\_\_
12. If you work, your close friends at work are
- 1. All Chicanos
  - 2. Mostly Chicanos
  - 3. Chicanos and Anglos, about equal
  - 4. Mostly Anglos
  - 5. All Anglos
  - 6. Other (Specify.) \_\_\_\_\_
  - 7. Do not work
13. If you work, the people where you work are
- 1. All Chicanos
  - 2. Mostly Chicanos
  - 3. Chicanos and Anglos, about equal
  - 4. Mostly Anglos
  - 5. All Anglos
  - 6. Other (Specify.) \_\_\_\_\_
  - 7. Do not work
14. In the service, my close friends were
- 1. All Chicanos
  - 2. Mostly Chicanos
  - 3. Chicanos and Anglos, about equal
  - 4. Mostly Anglos
  - 5. All Anglos
  - 6. Other (Specify.) \_\_\_\_\_
  - 7. Never in the service
15. I enjoy going to gatherings at which the people are (Check all that apply.)
- 1. All Chicanos
  - 2. Mostly Chicanos
  - 3. Chicanos and Anglos, about equal
  - 4. Mostly Anglos
  - 5. All Anglos
  - 6. Other (Specify.) \_\_\_\_\_

16. The people who have most influenced me in my education have been
- 1. All Chicanos
  - 2. Mostly Chicanos
  - 3. Chicanos and Anglos, about equal
  - 4. Mostly Anglos
  - 5. All Anglos
  - 6. Other (Specify.) \_\_\_\_\_
17. When I study with others, I usually study with
- 1. All Chicanos
  - 2. Mostly Chicanos
  - 3. Chicanos and Anglos, about equal
  - 4. Mostly Anglos
  - 5. All Anglos
  - 6. Other (Specify.) \_\_\_\_\_
  - 7. Never study with others
18. In the job(s) I have had, my close friends have been
- 1. All Chicanos
  - 2. Mostly Chicanos
  - 3. Chicanos and Anglos, about equal
  - 4. Mostly Anglos
  - 5. All Anglos
  - 6. Other (Specify.) \_\_\_\_\_
19. I have usually attended churches where the pastor and church members were
- 1. All Chicanos
  - 2. Mostly Chicanos
  - 3. Chicanos and Anglos, about equal
  - 4. Mostly Anglos
  - 5. All Anglos
  - 6. Other (Specify.) \_\_\_\_\_
20. As a child, I learned to pray in
- 1. Spanish only
  - 2. Mostly Spanish
  - 3. Spanish and English, about equal
  - 4. Mostly English
  - 5. English only



21. In high school, did you participate in any organized athletic and/or recreational activities such as football, cheerleading, etc.?

Yes  No

a) If yes, list the activities: \_\_\_\_\_

b) If yes, the other members of the team or activity were

1. All Chicanos

2. Mostly Chicanos

3. Chicanos and Anglos, about equal

4. Mostly Anglos

5. All Anglos

6. Other(s) (Specify.) \_\_\_\_\_

22. Do you now participate in any organized athletic and/or recreational activities? (Bowl with a league, play intramural sports, etc.?)

Yes  No

a) If yes, list the activities: \_\_\_\_\_

b) If yes, the other members of the team or activity are

1. All Chicanos

2. Mostly Chicanos

3. Chicanos and Anglos, about equal

4. Mostly Anglos

5. All Anglos

6. Other(s) (Specify.) \_\_\_\_\_

23. When I write poetry or other personal material, I write in

1. Spanish only

2. Mostly Spanish

3. Spanish and English, about equal

4. Mostly English

5. English only

6. Other (Specify.) \_\_\_\_\_

24. When I discuss personal problems or issues, I discuss them with

1. Only Chicanos

2. Mostly Chicanos

3. Chicanos and Anglos, about equal

4. Mostly Anglos

5. Only Anglos

6. Other (Specify.) \_\_\_\_\_

25. When I am involved in group discussions where I am expected to participate, I prefer a group made up of
- 1. All Chicanos
  - 2. Mostly Chicanos
  - 3. Chicanos and Anglos, about equal
  - 4. Mostly Anglos
  - 5. All Anglos
  - 6. Others (Specify.) \_\_\_\_\_
26. What was the ethnic affiliation of the priests, ministers, nuns, or other clergymen who influenced you in your life?
- 1. All Chicanos
  - 2. Mostly Chicanos
  - 3. Chicanos and Anglos, about equal
  - 4. Mostly Anglos
  - 5. All Anglos
  - 6. Others (Specify.) \_\_\_\_\_
27. The teachers and counselors with whom I have had the closest relationships have been
- 1. All Chicanos
  - 2. Mostly Chicanos
  - 3. Chicanos and Anglos, about equal
  - 4. Mostly Anglos
  - 5. All Anglos
  - 6. Other (Specify.) \_\_\_\_\_

PART III

1. How often have you been invited to and attended functions which were predominantly Chicano in nature?

- 1. Extensively
- 2. Frequently
- 3. Occasionally
- 4. Seldom
- 5. Never

2. How often have you been invited to and attended functions which were predominantly Anglo in nature?

- 1. Extensively
- 2. Frequently
- 3. Occasionally
- 4. Seldom
- 5. Never

3. In the community where you grew up, how often did you interact with the following groups? (Check those that apply.)

	Always	Frequently	Occasionally	Seldom	Never
1. Anglo Americans					
2. Mexican Americans (Chicanos)					
3. Black Americans					
4. Native Americans					
5. Asian Americans					
6. Latino Americans					
7. Filipino Americans					
8. Others (Specify.)					

4. How important was it to your parents that you learn to speak English well?

- 1. Very important
- 2. Important
- 3. Slightly important
- 4. Not very important
- 5. Not important at all

5. How important was it to your parents that you learn to speak Spanish well?

- 1. Very important
- 2. Important
- 3. Slightly important
- 4. Not very important
- 5. Not important at all

6. Your parents encouraged you to feel proud of your heritage

- 1. Always
- 2. Most of the time
- 3. Occasionally
- 4. Seldom
- 5. Never

7. Your parents encouraged you to feel proud that you are an American

- 1. Always
- 2. Most of the time
- 3. Occasionally
- ~~4. Occasionally~~
- 4. Seldom
- 5. Never

8. How often do you watch, read, or listen to each of the following in English?

	Very often	Often	Occasionally	Seldom	Never
1. Television					
2. Movies					
3. Radio					
4. Magazines and Newspapers					
5. Novels/Books					
6. Music					

9. How often do you watch, read, or listen to each of the following in Spanish?

	Very often	Often	Occasionally	Seldom	Never
1. Television					
2. Movies					
3. Radio					
4. Magazines and Newspapers					
5. Novels/Books					
6. Music					

10. About how often do you visit in the homes of Anglos? (Do not include relatives.)

- 1. Very often
- 2. Often
- 3. Occasionally
- 4. Seldom
- 5. Never

11. About how often do you invite Anglos to your home? (Do not include relatives.)

- 1. Very often
- 2. Often
- 3. Occasionally
- 4. Seldom
- 5. Never

12. About how often do you visit in the homes of Chicanos? (Do not include relatives.)

- 1. Very often
- 2. Often
- 3. Occasionally
- 4. Seldom
- 5. Never

13. About how often do you invite Chicanos to your home? (Do not include relatives.)

- 1. Very Often
- 2. Often
- 3. Occasionally
- 4. Seldom
- 5. Never

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