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ABSTRACT

The study examined: (1) whether children from different ethnic backgrounds structure their inquiry into social problems along different lines and (2) whether these children have different value orientations at various age levels. The sample consisted of children, ages 7 to 12 years, from three groups: (1) American--no foreign language spoken within the home and both child and parents born in the U.S.; (2) Portuguese American--Portuguese spoken at home, fluent in both Portuguese and English, child born in the U.S., and parents born in Portugal; and (3) Portuguese--in the state of transition from the Portuguese to the English language or speaking only Portuguese. A 3x3 matrix (chronological age, ethnicity, and value orientation) was used along with a data bank which provided children with information on a community in the U.S. Children were administered a pre- and posttest, the Free Inquiry Test, and the Kluckhohn Inventory I and II. Some findings were: (1) as the children were less "Americanized" the perceptions of an American town decreased; (2) age and culture were critical factors in determining the perceptions of an American town; and (3) although no cultural directions were identified among the three groups, the American sample did have an advantage in content questions about the United States. (NQ)

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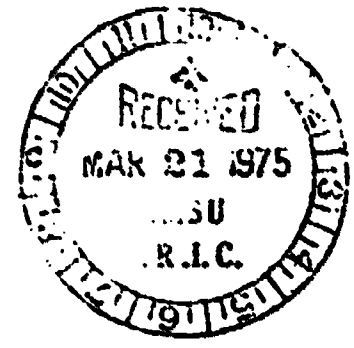

A PARADIGM FOR FURTHER RESEARCH IN BILINGUAL - BICULTURAL EDUCATION

American Education Research
Association Annual Meeting
March 30 - April 3, 1975

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Before I specifically talk about a paradigm for further research, I want to report to you that this research data was presented last year at the Third International Multi-Lingual-Multi-Cultural Conference under the title of "A Study on Culture - When do Primary Values Take Effect in Children?" Although my presentation is similar to the one presented at the bilingual-bicultural conference, I want to shift the emphasis because I believe that it may be possible here to have an indepth analysis for future research.

While I am presenting my findings, I would like all of us to keep one important question in mind: At what age do children view the world with a cultural bias? To be more technical and borrowing from the Geneva School (Flavell, 1963), do children at the "operational stage" differ in cultural orientation than children at the "formal operational stage?" My findings suggest there are some differences. These differences must be studied in the next several years because it may be possible that some pedagogical assumptions about bilingual-bicultural education may be false. If the data are viewed from the point of developmental operations, the general problems are the following:

1. Using adult prescriptions in our curriculum, in our case ethnic prescriptions, is it possible to translate these prescriptions into a bilingual-bicultural program for young children?

2. Must we wait until a child reaches the formal operational stage before we can have an effective bilingual-bicultural program?

3. What research do we have available in this area where children's values are studied with relation to developmental operations?

I believe that I have researched and developed a paradigm that could help us along in solving these issues. Permit me to go ahead and report my findings and I hope at the end of my presentation we can have a "skull" session to further some research in this area.

This study has two purposes - the first is to discover whether children from different ethnic backgrounds will structure their inquiry into social problems along different lines.

The second purpose is to find out whether these children have different value orientations at various age levels. Specifically, the study looks at the extent to which younger and older children of Portuguese ethnic backgrounds differ in value orientation from younger and older children reared in the United States.

Using a 3 x 3 matrix (chronological age, ethnicity and value orientation), the setting for this inquiry was a data bank which provided children with a great deal of information on a community in the United States. A data bank was used because it provided a structure for mapping the course of children's thinking as they worked towards problem solutions.

Related Themes

As retrieval systems are being developed in the educational field, many researchable questions become apparent. Joyce and Joyce (1969) state that children's social concepts seem to vary with age, socio-economic variables and family characteristics. In terms of learning and schooling, however, the effects on instruction have yet to be identified. The research study by Joyce and Joyce states that social science educators are challenged to learn more about social conceptualization and how to increase the role of schooling in improving children's social thought.

Nostrand (1967) calls for research in what he terms the "ground of meaning" in which perceptions such as "resentimientos" and "individualism" could be better understood. A possible approach to evaluate value orientations is through the Human Relations Area File.

Bruner (1967) identifies cultural differences as "structural amplifiers" of motor, sensory and reflective capacities. In terms of education and ethnocentricity, Taba (1962) takes the position that the school needs to counteract the inevitable parochialism of socialization in ethnocentricity: yet she also cites, with no solution, that the process of acculturation is usually attended by stress which may vary from a relatively mild anxiety to a severe disintegration.

Studying ten cultures, Gillespie and Allport (1966) reported that American college students showed a greater tendency toward privatism and future orientation. DuBois (1955) states that four premises dominate America's cognitive view of the universe, (1) the universe is mechanistically conceived, (2) man is its master, (3) men are equal, and (4) men are perfectible. Others (Pike, 1964; Ripoll, 1966) generally describe the traditional ethic of the "Latin" as a past oriented subject and that his value orientation is usually subjugated to nature. In short, differences do exist among cultures but the educational field still has few applicable models, if any, in the social sciences to identify specific orientations of children for further research.

The Human Relations Area File was the instrument used for structuring the data bank of this study. It formed the basis both for organization and inclusion of materials on the community and for enabling children to retrieve that information according to their interests.

The Developmental Sequence of Values

As man develops from infancy to adulthood, his knowledge universe becomes structured into some stable pattern which creates a formal belief system, conscious and unconscious, that forms a social construction of reality (Berger and Lucknam, 1966). Within this stability, there are some fundamental beliefs that seem to be self-evident, primary principles that

cannot be denied. It becomes a knowledge universe, a system directed toward "truth," a way to be "objective" about one's existence, a life style relating to the environmental needs. The shared meaningful experiences of a group develops a "we," a belief system that is "true." These "truths" or "self-evident principles" become values, negative or positive, that are ordered in some preferential way. Hence, within "truth," "objectivity," "the self-evident principles" each culture shares a common interest, a common attitude toward selecting environmental variables. Brameld (1959) uses the theme of explicit and implicit domains where the latter becomes the ideological level of society and the former becomes the accepted belief and attitude system of a culture. Kluckhohn (1961) talks about values as a process of selective orientation toward experiences which implies a deep commitment or repudiation of ordering choices among possible alternatives of action. Consequently values are directed or inferred in talking, acting, in the use of time, effort, and money (Rescher, 1969).

The discussion of values, explicit and implicit, is often confused. Historical settings, contradictions within a culture, and even stress may change the variables for individual reactions that may create different modes of behavior. Variables that are present in a certain space and time must be considered. Barton (1962) makes the distinction between human wants and human values. In the former he uses the term attitude because it is changeable depending on environmental factors or social stimuli. In the latter, value was implied as the "basic" belief system of a culture, a self-evident truth.

Thus, the specification of selected themes in studying ethnic groups becomes essential to acquire valid data. Values must be identified within certain limitations so that reliable information can be acquired.

The Kluckhohn Model

In this construct, value orientations are identified as the major focus in man's relation to nature and supernature, man's time focus and the modality of man's relation to other men. Within each orientation three basic

directions are given. Table 1 illustrates the further subdivisions which were developed by Kluckhohn and Strodbeck (1961).

Table 1

The Three Value Orientations and
The Range of Variations
Postulated for Each

Orientation	Postulated Range of Variations		
Man Nature	Subjugation-to-Nature	Harmony-with-Nature	Mastery-over-Nature
Time	Past	Present	Future
Relational	Lineality	Collaterality	Individualism

A brief discussion will not follow for each sub-division in the area of value orientations.

Man-Nature Orientation

In this domain the main emphasis is man's relationship to the forces of nature, how these forces can be controlled by man through his own force or intellect, or through some power unknown to or uncontrolled by man. Man may interpret his environment as a sphere in which the forces of nature may overpower man, work with man, or be controlled by man. If a society believes that the forces of nature dominate man's life, such as the Spanish-American group cited by Kluckhohn (1961), then we may say that the culture is oriented towards man's subjugation to nature; but if a cultural group believes that the natural forces work with man, such as the Navaho Indians in the United States or the Chinese or Japanese cultures, then we may state that the orientation is with nature. If, however, a society traditionally believes that nature can be conquered, such as the American view reported by Kluckhohn and others, then we may state that the society is oriented toward the conquest

of nature.

Time Orientation

Man lives in a time structure in which his life style is influenced by his interpretation of time. This interpretation may affect the society as it reacts to change. Kluckhohn (1951) illustrates this thesis by the English and Chinese resistance to change with their past orientation to time; by the Spanish-American indifference toward time and change in which these people live from day to day; and America's theme of future orientation in which change is accepted with less resistance. It is in this realm that man may measure his goals, learn how to acquire them, and find how long it will take to accomplish them. All human problems involve time, but how the time is valued forms different alternatives to problem solving.

Relational Orientation

Man is a social being and he structures his society according to who is going to lead and who is going to do the work. All societies have a social structure which deals with human problems. Whatever structure is given, it puts man in a position which is accorded some value. In the individualistic variation, man is perceived as a free being making responsible decisions with freedom of choice. Collaterality emphasizes groups, working with others and accepting the choice of the whole. In this case, leaders are accepted by all and yet the group still has the veto of individual power. Kluckhohn (1951) cites the Mormons and the Navahos as examples of this orientation. Other societies are structured more on a hierarchical order with the emphasis on social class, important people, and power. In this orientation, societies are apt to be static with each "family" retaining power from one generation to another.

The use of this model for the study of ethnic groups became apparent.

It gave the power to investigate specific domains of cultural differences and similarities. With the use of data banks, many possibilities were foreseen.

The Use of Data Banks To Investigate Cultural Differences--The Kluckhohn Model and the Free Inquiry Task

The data banks developed by Joyce and Joyce (1969) contain eighty-eight major and six hundred twenty-nine sub-categories which were taken from the Index to the Human Relations File. Within each major category, information was stored about a town in the United States.

This information was available as written material and photographs. All of it was put on slides, and the written material was recorded onto tapes. When the children wanted to know something specific about the culture, their request was translated into the appropriate area file category. The tray of slides which contained written material and photographs bearing this number was given to them, and they were able to show themselves the slides.

This setting proved to be useful in two ways. The value orientation of the children could be looked at against the background of another culture, and ethnic differences, if any, could be perceived as the children inquired into human problems.

Consequently, the combination of the retrieval system with two modes of inquiry fulfilled the necessary means to investigate different types of values of ethnic groups.

Overview of Design

The general design of this study focused on four general questions with relation to ethnic differences as children deal with society and four general questions with relation to the Kluckhohn Model. Ethnic differences were looked at with the help of the following questions:

1. Do the children of the identified groups cluster in certain categories when given an unstructured task about a town?

2. Are the clusters, if they exist, the same or different in each cultural group?
3. Do the children of the identified groups cluster in categories when they talk about the town that they have investigated?
4. Does chronological age have any significance with relation to questions one through three?

The following questions were aimed at the value orientation of the groups:

1. Do children from different cultures perceive the man-nature orientation differently?
2. Do children of the identified groups perceive time differently?
3. Do children of the three groups perceive the relational character of their environment differently?
4. Does chronological age within the three groups have any significance in questions one through three?

The following definitions and procedures were used to support the design of this project.

Three groups made up the sample for this project. The three groups were identified as the American, Portuguese-American, and the Portuguese samples. The Americans were considered as having no foreign language spoken within the home, and both the child and his parents would have to have been born in the United States. In the Portuguese-American group, the children had been born in the United States and their parents born in the country of Portugal. To be considered in this sample, the criteria was set that the children must speak Portuguese at home and at the same time be fluent, at least in speaking, both in Portuguese and the English languages. The Portuguese sample was identified as a group that was in the state of transition from the Portuguese to the English language or the person only spoke Portuguese.

Portuguese children having lived more than three years in the United States were not eligible to participate in this study. The ages of the children in the population ranged from seven to twelve years.

Free Inquiry Task

The Free Inquiry Task was developed by Joyce and Joyce (1969) for use in Data Bank research. Each child was introduced to the Data Bank and then asked to acquire enough information about the town so that he could tell someone else about it. Information was given the child according to the category of his question. Research was done to discover if children could acquire information in this way and how they dealt with it. The information acquired by the child was put on tape and the tape coded.

After the child was introduced to the system, he was asked, "Now that you have been introduced to Prestonport, what would you like to learn about it?" His questions were translated into an Area File Category and recorded. As in the Free Inquiry Task by Joyce and Joyce, he made a tape on completion of the task to his satisfaction.

The Development and Use of Kluckhohn Model I

The Kluckhohn Model I has been used extensively in studying value orientations of other cultures. The development of an inventory from this model for discussion about Prestonport seemed necessary to gather data about value orientations of the children. Given the definitions of the man-nature, time and relational orientations, nine questions were developed for use in the project. After various revisions and evaluations were made upon the nine questions, three independent judges were selected to identify each question with a value orientation. A one hundred percent agreement was ascertained in identifying the three domains.

Critical decisions had to be made as to when the inventory would be administered and how it would be discussed. This is, would it be best to

give the inventory right after the free inquiry task? Would the children be too tired for a long session? What administrative problems would one encounter in having the child out of class for two or three days? Should the "Kluckhohn Inventory I" precede the "Kluckhohn Inventory II?" If so, should everything, the free inquiry task, the "Kluckhohn Inventory I" and the "Kluckhohn Inventory II", be done in the same day? Could the children respond to all the stimuli at one given session, if time permitted? The pilot study did show that children were able to adapt to different situations but all of these children were in a dissimilar social setting. It was finally decided that a maximum of four hours in the system would necessitate another session, the next day, for the completion of the various models. In either instance, the four hours utilized or not, the free inquiry task would be finished in the same day and if the child seemed to be interested in doing more, a five-hour maximum was prescribed.

The use of the "Kluckhohn Inventory," originally known as the Kluckhohn schedule, was to acquire data on value orientations with relation to the free inquiry task. Two approaches were evaluated in terms of the administration of the model. The first was recording the questions as in the pretest and having children select the value orientation that they thought were best. The second approach was to read the question to the child and have the child respond to the value orientation that he or she thought was best. Because of the complexity of the model, technique number two was selected. The rationale of this choice was that the child had to select his first and second preferences, and it was assumed that many of the children would need more than two repetitions. Also, some of the concepts seemed to be too complex without an explanation and thus one could not assume that the children responded according to their value system. This was especially true with the younger sample.

The time factor was taken into consideration. To have some consistency

in talking to the children about value orientations, it was decided to administer both models in the same day. If a four-hour limit was passed and if the "Kluckhohn Inventory I" was not given the same day as the free inquiry task, then both models were given the next day. This seemed to give some control over the communication variable among the children.

Summary of Procedures

The following steps were administered to collect data to analyze the prescribed tasks for the children which included the free inquiry task and Kluckhohn Model:

1. Inspection of the school records in selecting the children within the criteria prescribed for the three cells.
2. A random selection of the children in each cell and subsequent ranking for a personal interview.
3. An interview with each child to evaluate the eligibility in relation to the criteria that were established.
4. The implementation of the pretest for eligible students.
5. The implementation of the free inquiry test.
6. The implementation of the Kluckhohn Inventory I.
7. The implementation of the Kluckhohn Inventory II.
8. The implementation of the posttest.

The Analysis of Data and the Related Problems

The problem of using either a statistical or a descriptive treatment in interpreting the findings was a critical issue. Although each collapsed cell had an n of 24, the focus of this study was to interpret differences and similarities according to chronological age and culture for further research and development in retrieval systems. Thus, each collapsed cell of an n of 24 would lose significant data. The critical question then became - "If one

used an n equal to 8 would a statistical treatment be valid with such a small sample?" The answer seemed to be affirmative, but it was difficult to justify any generalizations, even if significant differences were found with such a small group. It was decided that a descriptive analysis would be best because the protocols would give enough data to describe cultural differences.

Exclusions and Limitations of the Study

Anyone grouping for some meaningful conceptual framework in cross-cultural research must overcome social and economic variables that may subtly change the direction of the findings. For example, when one talks about values that are directed in a culture, factors such as social class, rural versus urban orientations, and other complex variables must be taken into consideration. Portugal, with an agricultural economy and with most of its immigrants coming from the rural areas, presented some limitations with relationship to the American and Portuguese-American groups. That is, with one group being involved in an agricultural economy, the Portuguese group, and the other two groups being in an urbanized industrial setting, Newark, New Jersey, we must assume that cultural factors are complicated by economic variables in the two types of social environments. Because of the limitations of the sample size and the immigration factors of the Portuguese to the United States, one must assume that the findings of this project are related only to the rural Portuguese. To somewhat overcome this limitation all children from the American and Portuguese-American groups were selected on the basis of their parents' occupation which would be either in the unskilled or semi-skilled working class.

Although important for another study, reading levels and I.Q. scores were not considered for this project. This decision was made because no scores were available for the Portuguese group. Using a random selection process for all three groups, the possibility of biasing a sample was virtu-

ally eliminated. It was also felt that the use of tape recorders for listening purposes eliminated the problem of differences in reading, but not of I.Q. variation. These two factors, the use of a random selection and the use of tape recorders, seemed to be the best approach in equalizing all three groups.

Pretest

Table 2 illustrates that both culture and chronological age determined the scores in the pretest. The American sample in all three cells scored higher than that of the Portuguese-American and the Portuguese group, and the Portuguese-American all scored higher than the Portuguese. The mean score also increased in each cell as the group increased in age. Two conclu-

Table 2

Comparison of Scores on Pretest For the Three Cells of Each Cultural Sample

Cell Number	American	Portuguese-American	Portuguese
1 (7 yrs. to 8 yrs.11 mos.)	M 10.25 S.D. 2.32	M 9.50 S.D. 2.00	M 7.25 S.D. 2.05
2 (9 yrs. to 10 yrs., 11 mos.)	M 11.62 S.D. 2.13	M 11.50 S.D. 1.00	M 8.62 S.D. 1.00
3 (11 yrs. to 12 yrs., 11 mos.)	M 15.25 S.D. 2.76	M 12.75 S.D. 2.18	M 12.25 S.D. 2.86

sions were arrived at from the data:

1. As the children were less "Americanized" the perceptions of an American town decreased.
2. Age and culture were critical factors in determining the perceptions of an American town.

The findings, however. did not answer many questions. What type of questions in the pretest did the Americans, Portuguese-Americans and Portu-

guese interpret correctly? Was there any direction in the type of questions answered correctly or incorrectly? Did age have any direction in the type of questions answered correctly or incorrectly? Would the system change any of the perceptions of Prestonport, given in the posttest, in terms of the questions asked? Each item was analyzed in terms of the number of selections from each item by culture and chronological age.

In three cases, the American sample differed from the other two with respect to clustering of answers on the pretest. In three cases, the Portuguese sample differed from the other two; and in four cases, the American-Portuguese sample was different. But in twenty cases, an overwhelming majority, no differences between the three groups could be ascertained.

Only three questions in the American and Portuguese-American samples indicated some direction, but with an even closer analysis the questions in the pretest were not related. For example, in the American group, differences were found in questions 3, 11 and 23 which were in two entirely dissimilar areas. Question 3 asked for an interpretation of social class; question 11 asked for an interpretation of the type of churches in Prestonport, and question 23 asked again for an interpretation of social class. What is significant is that no major differences were found in twenty questions in relation to cultural characteristics.

If culture did not seem to be a determining variable, then age seemed to have some influence on the scores. This assumption was validated by the analysis of the spread of scores in each age group and question. Table 3 shows the spread of scores in each cell by chronological age. The lower the score, the more the spread in each cell and, therefore, the less clustering in each group. One may note that as the age increased more clustering took place, which indicates that the interpretation of social and/or cultural situations is dependent on chronological age. The possible reason for the Portuguese sample scoring lower than the other samples may be due to the type

of test administered. Objective tests are rarely used in the Portuguese school system; and, thus, this type of thinking process may be alien to the Portuguese sample. More research could be done in this area.

Table 3

Spread of Scores by Chronological Age

Question Number	Cell Number 1	2	3
1	2	16	14
2	9	12	14
3	9	12	10
4	8	10	12
5	7	8	11
6	9	11	15
7	7	8	12
8	6	5	13
9	13	11	15
10	8	9	11
11	15	7	10
12	17	5	8
13	12	7	17
14	13	14	15
15	7	10	14
16	8	5	2
17	7	9	21
18	9	7	10
19	6	15	18
20	10	9	3
21	7	12	13
22	5	6	17
23	5	11	14
24	5	9	3
25	13	17	16
26	11	15	14
27	6	8	13
28	7	6	6
29	5	9	13
30	7	7	4
Mean	8.43	9.66	11.93
S.D.	3.33	3.33	4.64

High score indicates high clustering. Low score indicates large spread of choice.

Free Inquiry Task

The major focus in this task is to analyze the topics which interest children when they are in an unstructured situation. The major question is whether any cultural direction was dominant in any of the samples?

As in the pretest, the findings seem to indicate that the Portuguese sample was either working in a different cultural direction or was at a disadvantage in relation to the type of task employed. A category analysis revealed that the differences between the Portuguese sample and the other two samples were not in cultural direction but only in the quantity of questions asked. Clusters were dominant in all groups in the same categories and where one group did not select a specific category, the selection of that category by the other groups was also low in input. The structuring of cultural directions in the three groups did not differ and the similarities were actually greater. More research is needed in this area because children at the concrete operation stage may not significantly vary in value interests as some of the educational literature implies.

Table 4 shows that the mean input of the Portuguese sample in all three cells was lower than the other groups. The Portuguese-American and American means were mixed, and chronological age did not seem to be a factor for cells two and three. The mean score of cell three in the American sample was higher than the mean score of cell three of the Portuguese-American group, but in cell one and two the reverse was true. Cell two and three seemed to handle the system without any difficulty, with the exception of cell two of the Portuguese sample, but cell one showed that the mean input was well below the other cells.

Table 4

Comparison of the Number of Major Topics
Selected by the Three Samples

Cell Number	American	Portuguese-American	Portuguese
1	M 9.62 S.D. 4.59	M 10.25 S.D. 3.53	M 9.25 S.D. 2.25
2	M 13.50 S.D. 2.47	M 18.87 S.D. 8.60	M 9.62 S.D. 4.77
3	M 21.62 S.D. 10.26	M 13.25 S.D. 6.04	M 11.50 S.D. 4.69

The difference in the categories was only nine, and the difference of the number of categories selected by only one cultural group was six. Within these differences in relation to the selections of categories by one group, there was no major clustering. Consequently, no major cultural direction was identified. The urban-rural phenomena of the culturally different student did not change the clustering in certain areas in an unstructured situation. Only quantity was a factor in the number of total selections of the Portuguese sample. The major interests in all three groups were in the categories of food consumption, clothing, structures, settlements, marketing, labor, land transport, water and air transport, recreation, social stratification and education. With the possible exception of labor, all groups seemed to have a high interest in the mentioned categories.

Discussion

The Portuguese sample did not function well either in the pretest or the free inquiry task, but this seems to be because of the modes of thinking that were prescribed. That is, objective testing and working with mechanical devices may be alien to this group. There may be a lack of experience

in asking questions pertaining to social environments, but any conclusion in this area is beyond the scope of this study. Problems in working in the system seem to be because of chronological age and not culture. For example, in the pretest some children in cell one and two answered the questions improperly. Questions with three choices, A, B, and C, were sometimes responded to with the letter D. The test may have been either too difficult in vocabulary or too difficult conceptually for the younger children, especially for the Portuguese group. The type of questions asked by the younger children were less complex and many times the questions would pertain to the same category that was just observed. For example, after seeing the major category of clothing, a child would ask if he could see a woman sewing. Other questions were - "What color are the flowers there?" - "How many fish are there in the river?" - "Is there a policeman in the corner there near the school like in Newark?" - etc. These irrelevant questions limited the younger child when working in the information retrieval system. More research is needed in this area. The collapse of various categories might be necessary for the younger children.

Output Stage

The logical conclusion would be that the output stage would be directly related to the input stage of the pr[illegible] in terms of topics which were mentioned by the children. This assumption was validated.

Quantity, and not cultural direction, was again the major difference among the three groups. The Portuguese sample used fewer categories than the other two groups, and the number of categories selected by only one group was 3, 2 and 2 - American, Portuguese-American and Portuguese respectively. Clustering was predominant in the major categories related to the major categories in the input stage. Table 5 shows the output means and standard deviations of each group. Although the Portuguese group did score

less in mean scores in cells two and three, there seems to be a relationship

Table 5

Comparison of Cells One, Two and Three With Respect to Input and Output Variables on Free Inquiry Task

Cell Number	American	Portuguese-American	Portuguese
1	M 5.75 S.D. 2.81	M 7.00 S.D. 2.82	M 6.12 S.D. 0.99
2	M 9.12 S.D. 2.47	M 11.62 S.D. 6.82	M 8.12 S.D. 4.05
3	M 11.75 S.D. 4.86	M 10.37 S.D. 4.20	M 9.00 S.D. 3.85

between the mean scores and the retention of the material. The Portuguese sample did better in the retention of the material in all of cell two and in cells one and three between the Portuguese and the American samples. The data seems to imply that there may be some relationship between the number of categories inquired about in one session and the retention of the material. That is, the higher the input for one session, the lower the retention factor in the free inquiry task. More research is needed in this area before any concrete conclusions can be made.

Chronological age is an important variable in the output stage. Cell one did poorly in abstracting the material in some coherent order. Although the percentages in the retention data do not seem to differ among the three cells, some of the children in cell one could not effectively manipulate the output stage in the free inquiry task. Consequently, the mean scores and the retention factor for this group are quite misleading. For example, a child in the American sample, cell one, asked about houses, parks and schools. The appropriate sub-categories were given to the child. The

following output task was taped from the same child:

> I seen the house and stuff and I read and sang. I go to school. I seen the park, swimming pool and the house and the movies (long pause) because I like to go to the park and read. That's all.

One may note that the input is coded into six sub-categories and the output stage is also the same - houses, parks and schools. Thus a hundred percent correlation is registered between the input and output stage, but the effectiveness of the system is still in question. What was given was concrete, incoherent, and no social concepts were developed. Joyce and Joyce (1969) reported similar results in a white middle class sample. Variables such as vocabulary, the development of social concepts in younger children, the experience of the group, and/or the developmental stage of the group may be some causes of the poor results. More research is needed in this area before any conclusions can be made.

"Kluckhohn Inventory I"

It was assumed that the "common human problems" or value orientations would identify cultural directions among the groups. That is, the groups would solve the problems about Prestonport according to their predominant cultural direction. Table 6 defines the directions each group had taken in talking about Prestonport.

Table 6

Value Orientations for Kluckhohn Inventory
by Culture and Chronological Age

		American			Portuguese-American			Portuguese		
		Cell	Cell	Cell	Cell	Cell	Cell	Cell	Cell	Cell
	Orientation	1	2	3	1	2	3	1	2	3
Nature	Over Nature	2	10	9	0	3	1	2	0	2
	With Nature	5	13	12	11	12	17	8	9	15
	Subjugated to Nature	16	1	4	13	9	6	14	15	7
Time	Present	10	11	9	6	10	11	14	6	13
	Past	7	3	6	8	4	2	3	6	2
	Future	7	11	9	10	10	11	7	12	9
Relational	Individual	8	7	8	8	7	7	4	0	3
	Collateral	7	10	14	7	14	10	8	5	5
	Linear	9	6	2	9	3	7	12	17	16

Culture and chronological age seem to be variables that determine value orientations in "Kluckhohn Inventory I." All the younger children (cell one) identified a direction toward a subjugation to nature. Typical responses in the protocols for this orientation were, "because God made us," "I like God because He helps us when we are in trouble," and "because God rules." The younger children seemed to view God as a very concrete entity, while in contrast some of the older children abstracted the questions in relation to their personal beliefs. The American sample showed more of a value orientation toward over-nature than any other group, which seemed to indicate a different orientation in the problem solving task. Responses in this area were "because man has his own mind and God doesn't," "I picked it because I think if you want to be something God can't tell you, 'be nothing,' and you want to be, say, a fireman, something like that, God just watches over you. Like, he doesn't tell (you) what to do. You do it all on your own," and "I have to do my own work," all of which substantially differed from the Portuguese answers. Although the total responses in the three groups identified a direction with nature, the subjugated-toward-nature increased from the American to the Portuguese-American as the "mixed" or assimilated group in

the man-nature area.

The value of time seems to have no dominant direction for any group, and the primary directions were the present and future. Chronological age is, however, an important variable in the interpretation of time. That is, time for the younger children was so concretized that it was impossible to abstract the past or the future. Many of the younger children did not pick the past or the future because of the fear of dying or not being born. Responses for the past and/or future were "because my sisters and brothers were born there," "because if I was ahead of time I would have been old," "because things would start all over again," and "because if you pick the past, or you can't pick the past because a long long time ago ain't going to come again, and the future, you have to wait until that one." Some interesting phenomena, although out of the scope of this study, were the responses given by some of the older children in the Portuguese sample. Some children in cell three did respond to time more concretely than the other two groups. The possibility of a slower or different rate of development for the Portuguese rural child may have caused the lower number of questions asked in the value interests task, but before more research is completed in this area, no conclusions can be made.

The relational data directs all of the Portuguese sample in the area of lineality. The type of responses seemed to be related to the order in which the leader kept the society and/or the family together. Typical answers in this area were "because the leader would rule," "because if something had to be done he would rule. If the people unify and they say everything goes, they start to fight," "because people can kill each other and a leader will not let this happen," and "because if you don't have a boss, we can hit each other." In contrast, the American and the Portuguese-American

groups emphasized the theme of working together or being your own boss, and of doing what one wants to do. Responses such as "because all the people, they decide on one person and they think that person can do a good job in keeping order and things like up there," "because if you go to the big people, you might not, they might say no, and then if you do it upon yourself you might be the only one that's going to live there. This was if everybody votes and everybody is going to go there," and "because it's better to talk, you know, with everybody else so that you find their opinion too," seemed to direct the two groups into a collateral orientation."

The "common human problem" is then related to culture and chronological age. The differences, especially in the man-nature and the lineal orientation, seem to increase with age.

"Kluckhohn Inventory II"

This model indicates the same directions as in Inventory I. Table 7 shows the first and second choices selected by each group in the three areas.

Table 7

Kluckhohn Model II - First and Second Choices Combined

		American			Portuguese-American			Portuguese		
	Orientation	Cell 1	Cell 2	Cell 3	Cell 1	Cell 2	Cell 3	Cell 1	Cell 2	Cell 3
Nature	Over Nature	28	35	27	19	17	25	20	10	7
	With Nature	26	27	26	33	19	24	32	34	33
	Subjugated to Nature	26	28	27	31	35	31	28	36	39
Time	Present	33	32	41	38	39	35	25	38	33
	Past	26	21	23	37	39	19	33	26	25
	Future	37	37	32	27	27	42	26	32	39
Relational	Individual	34	33	30	27	33	33	34	27	37
	Collateral	37	47	40	32	41	44	33	32	23
	Linear	41	29	33	53	38	37	44	53	52

The Portuguese in the man-nature orientation increased in "subjugation-toward-nature" as age increased and accordingly, "over-nature" orientation decreased as age increased. Although the American and Portuguese-American sample seemed to be quite consistent for the orientations in all ages, the American sample did select more "over-nature" and less "subjugated-toward-nature" than the Portuguese-American sample. The Portuguese-American group again had the "mixed" value between the Portuguese and American groups.

Time orientation does not have any direction for the three groups. Chronological age may be a variable in this domain, especially for the younger children. As cited in Kluckhohn Model I, the younger children seemed to concretize time into their own life in which the past and the future could not be abstracted into some sort of value orientation. The context of the questions in II may have been too difficult for the children of all three cells, but this assumption cannot be verified without more research in this area.

Lineality is directed to both chronological age and culture. Table 7 illustrates that all of cell one had a direction toward lineality in the relational domain. Cell two and three of the American and the Portuguese-American samples shifted from lineality to collaterality whereas the Portuguese sample remained in the former area.

Taking the two models together, some interesting variables become apparent. Table 8 illustrates that both the man-nature areas and the relational areas are culturally directed, but chronological ages does influence the choices of the children.

Table 8

Kluckhohn Models I and II Combined

		American			Portuguese-American			Portuguese		
	Orientation	Cell 1	Cell 2	Cell 3	Cell 1	Cell 2	Cell 3	Cell 1	Cell 2	Cell 3
Nature	Over Nature	30	45	36	19	20	26	22	10	9
	With Nature	31	40	38	44	41	41	40	43	48
	Subjugated to Nature	42	29	31	44	44	40	44	51	55
Time	Present	43	43	50	44	50	46	39	44	46
	Past	33	24	29	45	43	21	36	32	27
	Future	44	49	41	37	37	53	33	44	48
Rela-tional	Individual	42	40	38	35	40	40	38	27	40
	Collateral	44	57	54	39	55	54	41	37	28
	Linear	50	35	35	62	41	44	56	70	68

The younger children in cell one show a direction either to "with-nature" or "subjugated-toward-nature," yet the American sample has more sleections of "over-nature." The Portuguese increase in "subjugation-toward-nature" as age increases, and "over-nature" decreases as age increases. The greatest difference is in the Portuguese sample from cell one to cell two where age may be an important factor in value orientation. This does not happen in the American cell where "over-nature" actually decreases from cell two to cell three, and, therefore, no conclusions can be made. The Portuguese-American sample becomes the "mixed" group where a possible bicultural variable seems to be at work. Cells two and three, where culture seems more important than chronological age, show that the American sample is less "subjugated-toward-nature" than the Portuguese-American group, but the Portuguese-American sample is less "subjugated-toward-nature" than the Portuguese group.

Time concept varied from cell to cell, which indicates no major direction. It is true that in cells two and three all of the children except the Portuguese-American did show a tendency to select the present or future time, but to state that one direction is dominant would possibly be an invalid conclusion.

Lineality was directed in the younger children, but with less direction

by the American children in cell one. The Portuguese sample had a dominant direction toward this domain in all three cells in which collaterality decreased as age increased. Collaterality was directed for both the American and Portuguese-American children in cells two and three, but age did not seem to be a factor in the increase or decrease in lineal or individual domain. The Portuguese-Americans seemed to agree more with the American sample in the relational area than did the Portuguese group. One variable which may be important is the political assimilation process of this group. Some clues are given in the use of names such as Antonio for Tony, or Jouaquim for Jack, and the Portuguese-American sample wanting only to speak English throughout the project. As mentioned in the discussion of "Kluckhohn Inventory I," the data did reveal more of a tendency by the Portuguese-Americans towards "working together," as opposed to the Portugueses' generally stating that working together would produce chaos, but more research in this area is needed before one can validate the differences and similarities within these beliefs.

Posttest

The posttest reveals that culture and chronological age are factors in interpreting the scores. As in the pretest, the American sample scored higher than the Portuguese-Americans, and the Portuguese-Americans scored higher than the Portuguese group. In this area, as age decreased, the mean scores decreased in all groups. Table 9 illustrates the mean scores and standard deviations of the groups by culture and chronological age.

Table 9

Posttest for All Groups Divided by
Chronological Age and Culture

Cell Number	American	Portuguese-American	Portuguese
1	M 9.75 S.D. 2.91	M 9.00 S.D. 1.50	M 8.87 S.D. 3.72
2	M 13.50 S.D. 3.66	M 11.37 S.D. 3.06	M 9.62 S.D. 1.90
3	M 15.00 S.D. 1.77	M 13.00 S.D. 2.56	M 11.62 S.D. 2.19

An item analysis of the posttest revealed the same results as did the pretest with one exception. Although no cultural directions were identified among the three groups, the American sample did have an advantage in content questions about the United States.

The American group in the posttest did differ more than the other two groups, but the differences occurred in content questions about Prestonport. Questions 7, 9, 18 and 30 were answered correctly by the American sample, and the questions were related to how the supplies were carried to the river, how Memorial Day is celebrated, the type of people who could vote in the colonial days, and the use of the parks in Prestonport, respectively. Incorrect responses by the Americans to two of the questions, numbers 13 and 18, may have been because of chronological age and not culture. In question 13, as age increased, the number of items answered in the cluster decreased. Question 18 seems to imply the same variable. It is interesting to note that the Portuguese-Americans did not differ with any group in the posttest. The Portuguese-Americans either agreed with one group or the other, which seems to parallel the findings in the

value orientation task in the man-nature and the relational domain. Why this occurred in the posttest is not known, but the data from the project seem to indicate that almost a dual culture is at the base of the Portuguese-Americans.

Culture must be taken into consideration in the posttest, not in relation to cultural direction, but to the experiences in one's own environment. That is, the Portuguese sample was less familiar with American history, the Portuguese sample was not accustomed to the type of testing that was administered, and, finally, the Portuguese children were from a rural community.

Summary

No cultural direction was interpreted in the posttest. Both the pretest and the posttest revealed that values were not an important aspect in answering the questions. Content seemed to be related to the knowledge of each group of the United States or a town in this country.

CONCLUSIONS AND IMPLICATIONS

The study focused on the inquiry of children as they studied a community with which they were unfamiliar. It was an attempt to discover whether children from differing cultural backgrounds would have different approaches to the study of society because of their basic value orientations.

The first part of the study consisted of observing the behavior of the children as they studied human events using a bank of information on the community. The second part of the study used an inventory derived from the Kluckhohn model for analyzing differences in value orientations due to cultural differences.

The "Kluckhohn Inventory" was used to identify value orientations of the children. These value orientations were found to depend upon the child's age and his cultural background. The younger children were able to deal with man-nature and relational orientations. The older children were able to deal with all three orientations, and with the time-concept in a more abstract way. The cultural differences which were observed were even more marked. The most extreme was the Portuguese sample which believed in lineality and man's subjugation to nature as opposed to the American sample and its belief in collaterality and man's ability to change nature.

The differences in value orientation which were evidenced through the Kluckhohn Model Instrument did not show themselves in the behavior of the children as they studied the community. Neither the questions the children asked as they studied the community nor the themes they employed in describing it were slated to ethnic background or to the age of the children.

In the process of the study, some questions were raised regarding the make-up of the retrieval system. For example, most of the themes in both the input and output tasks of the children fell into a very few categories (labor, structures, water and air transport). And there were only 31

categories in all which were touched upon by the questions of the children, although several hundred categories of information were available. In the future construction of data banks children's values, some thought must be given to the narrowness and concreteness of their interests. Children would be encouraged to look at a wider range of subject matter through the use of tasks intended to stretch their search patterns. Or the basic categories could be constructed so as to lead them into more abstract areas of thought and cultural behavior. Possibly differences in value orientation would appear if the children engaged in more extensive inquiry.

Another problem with a retrieval system is that of time. Today's classrooms are busy places, with much material to be covered and many bells to be adhered to. In this atmosphere of turmoil, it is difficult to establish the quiet, leisurely study which a data bank demands. Perhaps it would have been better to stretch the period of the study over an entire scholastic year. The children would be encouraged to work with the system a few minutes every day, perhaps just satisfying themselves on one question at a time. The results of such a study might show their ability to cope with the more abstract problems of a social entity and society as a whole.

Another possibility for the construction of new retrieval systems is one geared specifically to the values domain. For example, the results of the Kluckhohn model indicated that the Portuguese sample had a lineal orientation. A system built in the relational domain for these children could present social class, family structure, political power, economic and social mobility, and many other related areas in a slightly different light.

Types of Tasks and Further Research in Retrieval Systems

The type of task given to the younger children could be constructed to be more appropriate to their understanding and skills. Although the younger children were able to generate quite a few themes in both their input

and output tasks, their responses were on the whole isolated facts without any attempt at cohesion. Perhaps a task could be constructed so that these younger children could learn to form their facts into a meaningful whole, although in the light of previous research, it is probable that the children are too young to form abstractions. The same could be said of the "Kluckhohn Inventory" and the group task. The younger children had difficulty dealing with these, and were probably too young to cope with such an abstract approach.

Changes within retrieval systems based on cultural differences has a more promising future. Judging from the information received from the "Kluckhohn Inventory," the children with different cultural backgrounds do have a different approach to society. It is possible that the data bank used was relatively alien to some of these children. Perhaps if the material were presented in a way more sympathetic to lineality and man's subjugation to nature, these children might have learned better how to conceptualize their ideas. Since the possibilities for research in data banks on an international scope looks promising, this might be one aspect of the problem which could be scrutinized more carefully.

As the title of this project implies - "A PARADIGM FOR FURTHER RESEARCH IN BILINGUAL - BICULTURAL EDUCATION" - it still does not answer the most important question, that is, how can we identify through further studies the "breaking point" be it in years or in months, where children begin to abstract the world in a cultural form? The results indicate, but do not prove, that younger children are culturally similar within the parameters of the Kluckhohn model. Possibly, children perceiving the world at the operational level may "see" things as "real" and not abstract.
If this is so, I believe that we can start to look at our bilingual

bicultural programs from a different light. First we can discuss the pedagogical aspects of the type of curriculum we want as a communication for our children; second, and more controversial, we can talk about the political aspects of designing curriculum for older children.

This is not to deny in any way or form that bilingual and bicultural programs are irrelevant at an early age. Actually the opposite is true. It may give us new support systems so that we, as educators and community people, may describe in a more precise manner ways of developing knowledge systems that fit the needs of the children.

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