DOCUMENT RESUME

ED 050 178 24 TM 000 613

AUTHOR Guilford, Joan S.; And Others
TITLE Development of a Values Inventory for Grades 1 Through 3 in Five Ethnic Groups. Final Report.
SPONS AGENCY Office of Education (DHEW), Washington, D.C.
BUREAU NO BR-0-0196
PUB DATE Jan 71
CONTRACT OEC-0-70-2073
NOTE 278p.

EDRS PRICE EDRS Price MF-$0.65 HC-$9.87
DESCRIPTORS American Indians, Anglo Americans, Chinese Americans, Cultural Differences, *Early Childhood Education, Ethical Values, Ethnic Groups, Ethnic Studies, Factor Analysis, *Individual Needs, Item Analysis, Japanese Americans, Mexican Americans, Negroes, *Primary Grades, Reliability, Sex Differences, *Test Construction, *Values
IDENTIFIERS *Values Inventory for Children

ABSTRACT

The purpose of this project was to develop a non-verbal self-administering values inventory appropriate for children grades one to three. Children from five ethnic groups were administered a 60-item picture inventory designed to measure dimensions of value based on needs. Factor analyses of the resulting item inter-correlations for the total sample revealed underlying dimensions of a sociological nature. Factor analyses within ethnic groups revealed consistency with respect to most factors. Item analyses were performed on the basis of sex, grade level, and ethnic groups to identify significant differences with respect to item responses. Findings suggest the necessity for a re-evaluation of the traditional approach to educating young children. The instrument identifies dimensions of values which are of use to educators. The structured preliminary interview, the inventory, and tables presenting the data and findings are included. See also TM 000 614-615. (CK)

FINAL REPORT
Project No. 0-0196
Contract No. OEC-0-70-2673

DEVELOPMENT OF A VALUES INVENTORY FOR GRADES 1 THROUGH 3 IN FIVE ETHNIC GROUPS

Joan S. Guilford
Willa Gupta
Lisbeth Goldberg

General Behavioral Systems, Inc.
Del Amo Financial Center
Torrance, California 90503

January 31, 1971

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
National Center for Educational Research and Development

Final Report

Project No. 0-0196
Contract No. OEC-0-70-2673

Development of a Values Inventory for Grades 1 Through 3 in Five Ethnic Groups

(The Values Inventory for Children)

Joan S. Guilford
Willa Gupta
Lisbeth Goldberg

General Behavioral Systems, Inc.

January 31, 1971

The research reported herein was performed pursuant to a contract with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
National Center for Educational Research and Development

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

LIST OF TABLES

TABLE OF CONTENTS (Continued)

LIST OF TABLES (Continued)

PREFACE

The development of a test of values for young children is a major undertaking, requiring not only the cooperation but also the enthusiasm of a large number of individuals. Throughout all phases of both pretesting and final test administration, the research staff received warm receptions and helping hands from educators at all levels. Although it is possible to acknowledge only those responsible for obtaining samples of children and coordinating testing efforts, the staff is also grateful to all of the many first, second, and third grade teachers who no only assisted the project but provided additional insight into the responses of their pupils. We also thank the teacher aides and older students who contributed to this effort.

Singled out for special acknowledgement are the following:

Mrs. Camille Stevenson, Director, Little Citizens Nursery School
Mrs. Beatrice Chankin, Director, Jewish Congregation of Pacific Palisades
Mr. James Toya, President, and Mrs. Toshiko Toyoda, Principal, Japanese Institute of Sawtelle
Mrs. Othella Daniels, Administrative Coordinator, Los Angeles Children's Centers
Mrs. Edna C. Brown, Director, Sixth Avenue Children's Center
Mrs. Opal Spraggins, Director, Nora Sterry Children's Center

Culver City Unified School District:
Dr. Anita Mitchell, Director of Pupil Personnel
Mrs. Vera E. Hill, Principal, Linwood E. Howe School
Dr. Sol Spears, Principal, El Marino School

Montebello Unified School District:
Mr. Frank Fertschneider, Elementary Education
Mr. Jack Rouman, Guidance
Mr. Glenn E. Dibble, Special Services
Mr. Robert W. Capps, Principal, Bandini School

Compton Unified School District:
Mrs. Eleanor Dyer, Pupil Personnel
Dr. Leonard C. Erickson, Superintendent
Miss Lois Cannon, Principal, Laurel Street School
Mr. Frederick J. Becker, Principal, Frances Willard School
Mr. James S. Poure, Principal, Stephen C. Foster School
Mr. Howard M. Prouty, Principal, August A. Mayo School

Alhambra City School District:
Dr. Bruce H. Peppin, Director of Pupil Personnel
Mr. Heber J. Meeks, Principal, Brightwood School
Mr. Gary Fox, Principal, Monterey Highlands School
Mr. Stephen C. Mengos, Principal, Repetto School

Oxnard School District:
Dr. Gregory Betts, Assistant Superintendent of Schools
Mr. Kent Patterson, School Psychologist, Juanita School
Mr. Ronald Hockwalt, Principal, Juanita School

Papago Reservation:
Mr. Josiah Moore, Tribal Education Coordinator, Papago Tribal Agency
The Rev. Camillus Cavagnaro, Principal, San Jose Indian Mission, Pisinemo, Arizona
Mr. John Ross, Teacher-Supervisor, Santa Rosa Boarding and Day School
Mr. John Ben Dixon, Principal, Baboquivari Elementary School, Sells, Arizona

Finally, this project could not have been successfully completed without the able assistance of Mrs. Juanita Bryson who helped to test children in the Los Angeles area and Miss Elaine Lopez who both paved the way for and helped in testing on the Papago reservation. Particular credit is due to Clay Young who is able to convert an idea into a picture in such a manner that the final product is superior to the original conception. Special gratitude is also extended to Dr. Carolyn Stern, Director of Pre-School Research Projects at UCLA, who, without compensation, contributed her extensive knowledge, experience, and understanding to the development of the Values Inventory for Children.

SUMMARY

The purpose of this project was to develop a non-verbal, self-administering inventory of values usable by children down to the first grade level. Subjects used in this development were obtained from five ethnic groups: Mexican-American, Oriental, Anglo, Negro, and Indian. A total of 996 children were administered 60 pictorial items designed to measure seven dimensions of value based on seven categories of needs: Physiological; Safety; Love; Esteem, Aesthetic Self-actualization; and Aggression.

Factor analyses of the resulting item inter-correlations for the total sample revealed eight underlying dimensions which were subsequently named: Social Conformity; Academic/Health; Me First; Asocial Behavior; Aesthetics; Closeness to Adults; Sociability; and Masculinity. Factor analyses within ethnic groups revealed consistency with respect to most factors but the structures were not identical. Ethnic groups were compared on the basis of the eight factors derived from the combined groups.

Item analyses were performed on the basis of sex, grade level, and ethnic group to identify significant differences with respect to item responses. Item variances were compared to identify differences in variability with respect to sex, grade, and ethnicity.

The results of the analyses were interpreted in the light of a review of previous studies of affective dimensions in children. The implications of findings of sex, grade, and ethnic differences in values suggest the necessity for a reevaluation of the traditional approach to educating young children. The instrument, the Values Inventory for Children, has apparent utility for identifying dimensions of value which are of use to educators. This utility was demonstrated not only by the statistical findings, but by the clinical validation of the instrument by teachers.

One of the major contributions of the study lay in the approach to test development in which individual administration to a large number of pretest children provided information with respect not only to their values, but to their understanding of both items and instructions.

It has been proposed that subsequent development focus on the investigation of the validity of the instrument in predicting academic progress and school adjustment. Included in the follow-up will be an adaptation of the instrument for use at higher grade levels as well as an adaptation for adults. A study of the effect of teacher-pupil value differences (or conflicts) upon academic progress is also proposed.

CHAPTER ONE
INTRODUCTION

Values

Importance to Education

For the purposes of this preliminary discussion, the terms "values" and "attitudes" will be used interchangeably. The following section will attempt to delineate what other writers mean when they employ these terms and the definition used in formulating the approach taken here to the measurement of children's values.

This project was originally inspired by the concern of educators with the values of school children, particularly in the elementary grades. This concern is two-fold: (1) values nourished in schools must be commensurate with the emotional and social well-being of the child who is developing into the future citizen; (2) values are believed to be related to achievement in school.

The problem of values and their relationship to the educational process is multifaceted. Thompson (1968) believes that our culture is confused concerning which values should be nurtured in schools and that schools reflect this confusion by frequently making drastic revisions in their values orientation when confronted by criticism. Many of the values stressed in schools are antithetical, or at least unrelated, to the values stressed in other parts of the cultural environment. He goes on to state that educators do not have the necessary instrumentation (or much promise of getting it) to evaluate the schools' influence on human values.

In a discussion of Thompson's paper, Mussen (1968) made the following extremely germane remarks:

By the time the child is enrolled in school, he already has a pretty potent backlog of attitudes toward others, toward himself, toward acting out or controlling, toward generosity and consideration of others, et cetera. There is a real question about how much school experience can change the values already established (p. 237).

In the same publication, Mussen goes on to say:

We need more information about how values may be taught in the schools, but it is a vast program of research we are talking about, and there won't be easy answers. Before we can do anything, we have to have some means of evaluating the value structures of children and assessing change. This is in itself a most difficult problem (p. 240).

The philosophical justification for attempting to inculcate values through the educational system is a matter which must ultimately be resolved within the structure of public policy. Scriven (1966) asks the following questions: (1) Can one justify trying to change student values at all?; (2) Can one justify one particular set of values toward which

one should direct one's students?; (3) Can one ever demonstrate the occurrence of changes in student values due to the educational factor?; and (4) Even more fundamental, can one really measure student values in any important sense? He believes that the answer to all these questions is "Yes." As an example he cites the fact that public education presupposes sufficient discipline in the classroom to make teaching possible, thereby imposing on the teacher the obligation to inculcate a behavioral value system in students.

Although some educators (e.g., Holt, 1964) believe that attitudes are important as ends in themselves, most are concerned with their effect upon learning. Psychologists agree that children's attitudes are of primary importance in the effective acquisition of knowledge and skill (Tschechtelin, Hipskind, & Remmers, 1940). When it comes to establishing relationships between attitudes or values and achievement, however, the results are inconsistent. Whisenton (1968) found that continuing students' beliefs and values differed from those of dropouts. Dropouts identified with nonachievers. Jackson and Lahaderne (1967) found no significant relationships between attitudes toward school and either grades, achievement, or IQ. Tenenbaum (1940) obtained similar results. Glick (1969), however, obtained positive correlations between attitude and achievement with attitude toward peers demonstrating a stronger relationship than attitude toward teachers or school. Neale, Gill, and Tisner (1970) found significant relationships between attitudes toward specific subjects and achievement in them. Attitudes have been found to predict grades independent of abilities in college student samples (Cole & Miller, 1967) as well as in the lower grades (Hummel & Sprinthall, 1965). Furthermore, liking for school is positively related to the need for achievement (Jorgensen, 1967). Strickland (1970) concluded from a review of research that a significant relationship between attitudes and achievement has not been demonstrated since correlations generally range from -.10 to +.35. Nevertheless, of all the variables measured in the Equality of Educational Opportunity survey (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, & York, 1966), students' attitudes toward school, their self-concepts, and a sense of environmental control showed the strongest relationships to achievement.

The problem of attitudes toward school and school-related persons, objects, and activities is greater in the lower classes and among minority group children. Attitudes have been found to become more negative in the course of a school year and over a school career (Neale et al., 1970; Fitt, 1956). Mexican-American and Indian children show evidence of decreased attendance, deteriorated performance, increased dropout rates and a cumulative loss of faith in school and its programs as they progress (Anderson, 1970). Females and Anglos have more favorable attitudes toward school than do males or minority group children (Crosswait, 1967) and Negroes have much more negative attitudes than do Anglos or Cuban refugees (Dowd, 1966). Cloward and Jones (1963) believe that the difficulties Negro children encounter in school are attributable to the failure of the school to recognize the distinctive systems of values and goals of minority groups. This belief is supported by Cheyney (1966) who states that teachers of the disadvantaged generally come from middle-class backgrounds and have middle-class values and attitudes which are in conflict with those of children raised in slum areas.

Current efforts at educating the disadvantaged (e.g., Head Start) are aimed at making children more middle-class but there are those (e.g., Reissman, 1967) who advocate new programs which would enable teachers to become more understanding of and effective in teaching lower-class children. These lower-class children have less favorable attitudes toward teachers than do children in middle-class schools (Yee, 1966) and regardless of scholastic standing, elementary school pupils from blue collar homes tend to perceive teachers as rejectant (Davidson & Lang, 1960). Neale and Proshek (1967) also found that attitudes toward "school books," "classroom," and "teacher" became more negative with increasing grade level from fourth to sixth. Even first and second graders describe teachers as rejecting and punitive (Cohen, 1967).

Thus far, the discussion has primarily centered around attitudes toward school, teacher, etc. Attitudes may not be equivalent in some respects to values (a topic for discussion in the next section) as demonstrated by Dunn (no date) who found that elementary students had more favorable attitudes toward school but valued it less than did secondary students. He also found that middle class children liked school better but did not value it as highly as lower class children.

Attitudes toward (or evaluations of) school are not the only attitudes which may affect learning. Attitudes toward peers are certainly important modifiers of children's behavior. Furthermore, since it has been found that the young child's perception of mother is highly correlated with that of teacher and that this identification persists (Franco, 1965), responses to parents can be considered important. There are other attitudes or values which may be hypothesized to relate to academic achievement. For example, enjoyment of school-related activities such as reading or homework or preference for complex and difficult tasks over simple ones can be expected to affect motivation to persist in achievement behavior. In a sense the need for achievement (nAch) may be considered to be a value. Gorsuch and Smith (1970) report Academic Achievement as one of the most frequently mentioned values among fourth, fifth, and sixth grade children.

Although it has often been assumed that lower classes and minority ethnic groups have lower levels of aspiration for achievement than do white middle class members, the evidence is not consistent. For example, when Barberio (1967) matched eighth grade Anglo students with Mexican-American students on intelligence, no difference was found between the groups with respect to achievement need. Reboussin and Goldstein (1966) state that despite the conclusions of anthropologists that Navajo Indians do not emphasize achievement, they found a group of Navajo college students more highly achievement-oriented than a group of whites despite the fact that they were by no means completely acculturated. The degree of acculturation of the Navajos was not related to achievement need.

Boyd (1952) found that Negro children of age 13, matched with Anglo children for IQ, had higher levels of aspiration both for a target task and

with respect to educational and work hopes and ambitions. He hypothesized that such aspirations may be due to feelings of insecurity which lead to a desire to improve socioeconomic status or to defense mechanisms which serve the purpose of helping the Negro to adjust to disappointment and failure.

In one study Mingione (1968) found no significant differences between Negro, Anglo, and Puerto Rican children with respect to nAch nor were there any differences between fifth and seventh graders. Neither school grades nor intelligence scores correlated with nAch scores. These results were quite different from those obtained in an earlier study (Mingione, 1965) in which Anglo children had higher nAch scores than Negroes and seventh graders scored higher than fifth. The difference may be attributable to the differing techniques used. In the 1968 study, sentences were used as stimuli for the production of themes; in the 1965 study, line drawings were used.

Nelson, J. C. (1968) found the interests and aspirations of Negro and Anglo children in first grade to be about the same whether they were culturally advantaged or disadvantaged. As a final piece of evidence that ethnic group membership alone may not be a determiner of need for achievement, Gorsuch and Smith (1970) found no significant differences between Negroes and Anglos nor between middle and lower classes in the frequency with which children mentioned achievement as a value.

There is a great deal of opinion and some evidence on the other side of the issue of ethnicity-achievement need. Cameron and Storm (1965) found that middle-class elementary school Anglo children are more likely to tell stories which contain achievement imagery than are Indian or lower-class Anglos. Rosen (1959) and Mingione (1965) found a lack of nAch in lower-class Negro children. Katz (1967) believes that their lack of interest in classroom learning may be less a lack of nAch than of this need's being directed into non-intellectual pursuits. Pettigrew (1964) agrees; he feels that Negro children strive less for academic success because they do not perceive school as an appropriate means for achieving the values they share with the general culture.

Havighurst and Neugarten (1955) found that the major difference between Papago and Anglo groups was the extent to which individual achievement was a source of happiness for the Anglos but not for the Indians. Personal achievement was also termed "the best thing that could happen" by 27 percent of the Anglo boys and 25 percent of the Anglo girls but by only 18 percent of the Papago boys and 12 percent of the Papago girls. Similarly, personal failure or inadequacy is a source of shame to 21 percent of the Anglos and only four percent of the Papagos and when it comes to the "worst thing that could happen" 19 percent of the Anglos mention personal inadequacy as compared with only four percent of the Papagos. The individual achievement value theme is one in which Anglo boys and girls give three times as many responses as do Indian children. Among Indian tribes there is little difference.

In Borth's (1970) study Negro fifth-graders valued endurance above achievement, scoring quite low on the latter. He expresses the opinion that the black children studied were well socialized on behalf of goals

other than, and often diametrically opposed to, the development of intelligence, ego strength, and academic accomplishment.

Katz (1967) notes that although there is a general impression that Negro pupils lack adequate motivation for learning, there are no data to verify this impression. He points out that Negro parents have educational aspirations as high as those of whites (with the exception of the lowest classes) but they do not make the effort to provide the motivation or training necessary for the child. Negro children also express higher academic motivation, interest and aspiration than whites of the same economic level. In addition, they report more studying outside school than does any group except Orientals. Katz's conclusions is that "When high standards are adopted, but not the behavioral mechanisms necessary for attainment, the relationships between verbal expressions of the standards and actual performance will tend to be an inverse one (p. 175)." This may explain some of the findings in which minority groups (and particularly Negroes) express high nAch.

It must be remembered that in most of these studies of achievement need the technique is to present the child with stimuli to which he responds with a story. The story is then scored for nAch. That these achievement themes do not predict achievement test performance has been demonstrated by Crandall, V. J., Katovsky, and Preston (1962) although self-reported expectations of success, minimal standards of performance and importance attached to intellectual competence were predictive in their study.

Although the measures of need for achievement may often fail to differentiate between ethnic groups or social classes, the relationship between these measures and actual achievement is in serious question. The only ethnic group which clearly does not seem to be achievement-oriented is the Indian, despite Reboussin and Goldstein's (1966) results with Navajo college students (who surely must have been an exceptional group of Indians). Others may have middle-class aspirations equivalent to those of the middle-class Anglo without the means to attain the aspired-to goals. With better measures of the achievement value, relationships might be revealed between this variable and actual achievement.

In summary, it can be said that if the child is to learn he must adopt a value system in which activities and persons instrumental in the learning process have high priority. If he is to develop a style of life appropriate to his society, he must develop non-academic values which will enable him to function in that society.

Definitions of the Term "Value"

The term "value" has been used in many ways by many authorities. As Scriven (1966) says, the term in its broadest sense includes standards of any kind referring to any field (preferential values) which must be distinguished from moral (normative) values and these must be distinguished from personal standards of behavior and thought (prudential and conventional values). One must also distinguish between the widest spread of the term "value" which includes every item-preference and

the sense in which it refers to more abstract criteria (honesty, etc.) and one must, further, distinguish objective values from (a) falsely professed values, (b) truly professed values, (c) truly professed and actually operative values, and (d) implicit values (those which their owners reject but which motivate them). Finally, according to him, one must distinguish values in the sense of external goals from values in the sense of internal sets or attitudes, and values as individual properties from values as group properties.

Smith (1966) does not believe that values and attitudes are equivalent. He conceives of values as being ratings while attitudes are expressions of feeling. Ratings are in terms of such indicators as "good," "bad," "right," "wrong," "desirable," or "undesirable." Expressions of feeling or attitude are in terms of such indicators as "like," "enjoy," or "approve of" as opposed to "dislike," "don't enjoy," or "disapprove of." For pedagogical purposes, he says, the value of an object is its rating by competent persons, not the affective state of the respondent toward the object. He does point out that Krathwohl, Bloom, and Masia (1956) include attitudinal matters in the "valuing" category of their taxonomy while their "organizational" category conceptualizes values in such a way as to involve ratings.

Woodruff (1952) makes a more traditional distinction in defining a value as an object, condition, or activity which the individual feels has an effect on his well-being. Values, according to him, have two principal roles: an end which is sought above other ends and a path which is preferred over another path. He also states that at the age of three the significant goals are concrete, specific, and immediate and patterns of attainment are rigid. By the age of five the child can abstract and generalize and begins to defer rewards. Although his ends are stable, his paths are subject to change. This distinction between means and ends is sometimes phrased as a distinction between instrumental and terminal values (Rokeach, 1968). Barthol and Bridge (1968) define values (both instrumental and terminal) as entities, events, or behaviors that are wanted or preferred (or, negatively, unwanted or rejected) whether as ends in themselves or as means to other values. In a simple motivation model, they state, good things to do might be called instrumental and good things to happen, terminal.

In carrying out their work with the ECHO system (which will be described in a later section), Barthol and deMille (1969) found that questions concerning "good" and "bad" things to do elicited personal preferences and aversions as well as social obligations and prohibitions. Subjects mentioned things they would or would not like to do as well as things they ought or ought not to do. To a great extent, personal and social responses were in agreement. In another study, deMille (1970) reported findings that indicated that "good" and "bad" are not necessarily empirical opposites, i.e., each "good" thing did not have a corresponding "bad" thing to match it. Thus, values and disvalues are often not inversely related.

Mason (1968) defines values as being constituted by feeling associations (cathexes) with specific persons, things or ideas. He constructed a Value Orientation Scale emphasizing a "pleasantness-unpleasantness"

dimension of value. In general, this project adopted the point of view of Lehmann (1967) who contends that a definite demarcation between attitudes, values, and opinions is impossible. Even English and English (1958) define a value as "an abstract concept . . . that defines for an individual or for a social unit what ends or means to an end are desirable (p. 576)." Therefore, "value" and "attitude" are taken to be interchangeable.

The rationale for adopting affective responses to stimuli representing "pleasant" or "unpleasant" things (or preferences between "pleasant" or "unpleasant" things) is based not only on support provided by such writers as Mason, Lehmann, and Barthol and Bridge but on the nature of the instrument required for assessment of values in young children.

First, the construction of non-verbal (pictorial) items representing abstract terminal values (or even "good things to happen") is extraordinarily difficult. Even when such items are feasible, it is more important to know what kinds of behaviors or situations the child enjoys or approves of than it is to know why he feels the way he does. Second, it is necessary to formulate item stimuli in such a manner as to remove (as much as possible) any social desirability response set. Extremes of "good" and "bad" behavior would receive invariant responses and, therefore, contribute nothing to the instrument.

Third, if values are conceived as rankings, scoring of an instrument in which the response is an ordering of items produces ipsative scores which are not amenable to factor analysis. Thus, underlying dimensions of value cannot be identified. The only method whereby such ranking could be accomplished would be pair-comparisons[1] and the difficulty and time involved in this method would preclude the inclusion of more than a very limited number of stimuli.

Finally, the rationale is based on the assumption that if one values something (i. e., evaluates it positively) he will have positive feelings about it whereas if he disvalues it (i. e., evaluates it negatively) he will have negative feelings about it. Similarly, if he has two choices of action or situation and chooses the one he "likes best," he is also choosing the one he values more.

A word ought to be said at this juncture concerning the relationship between values and morality since the two are sometimes confused. It was noted that Scriven (1966) distinguished between moral (normative) values, preferential values, and personal standards of behavior. It is obvious that not all "pleasant" things are also "right" in the moral sense.

Morality and the concepts of "right" and "wrong" associated with it varies with social class but probably not with sex. Kohlberg (1963) reviewed the literature on sex differences in morality between boys

[1] For the reader who is interested in the comparative utility of pair-comparisons as opposed to ranking in the study of values, it has been found that the former is superior to the latter in the measurement of terminal values but not instrumental (Penner, Homart, & Rokeach, 1968).

and girls and found no difference except that girls conformed more to rules and were more inhibited. In a later report (Kohlberg, 1966) he states that among children between four and seven there are no correlations between criteria of masculinity-femininity and measures either of resistance to temptation, guilt, or development of moral judgment. He also notes that the stereotyping of the feminine role in terms of moral conformity and niceness values does not engender a stronger conscience in girls. Where differences are found in measures of guilt under conditions of apparent nonsurveillance, the differences are in the direction of a stronger conscience in boys. Maccoby's (1966) review shows no differences between boys and girls ages 6 to 12 with respect to cheating. Of the five studies of morality cited, two reveal no difference, two favor girls, and one favors boys. Krebs (1968) found middle-class girls less moral than boys on Kohlberg's Moral Judgment Inventory. However, lower-class boys cheated more than girls on tests adapted from Hartshorne and May (1930).

Harris, H. (1967) reports that the level of maturity of moral attitudes is related to race, social class, and intelligence with the latter correlating .49 with five moral attitude subscale scores combined. Social class had slightly more influence than race (Negro vs. Anglo) but Negro children ages 9 1/2 to 11 1/2 were less mature in moral attitudes than whites of the same age and class on two subtests. Social class differentiated among Anglo children on all five subtests. A review of studies relating to moral development suggests that social class may be a prime correlate of differences between groups in this respect.

In summary, for the purposes of this project, values were interpreted to be reflected by attitudes as determined by affective responses to objects, persons, activities, and situations which one might value or disvalue. Moral attitudes (or values) were included in the instrument but are not synonymous with values as defined here.

Ethnic Differences in Values

Whether or not values may be seen to differ between cultures or between ethnic groups within a major culture is probably a function of the degree of abstraction of the values considered. A review of the literature would seem to indicate that if one is talking about "terminal" values, cultures and ethnic groups are very much alike. However, when it comes to "instrumental" values, differences sometimes become pronounced. Thus, if one asks "Do you think a person should be good?" the answer is quite certain to be "Yes" and this value of "goodness" is universal. However, if one asks "What does one do to be good?" the answers will be divergent and expressive of instrumental values.

An example of the extent to which acculturation affects these two types of values differentially is seen in a study by Bond (1967) in which Samoans in a Samoan subculture were matched for sex, age, religion, and education with Samoans living in Los Angeles and with a group of native-born Americans. It was found that both conceptual (terminal) and operative (instrumental) values changed significantly in the acculturation process. Conceptual values changed in the direction of the new

culture while operative values changed in the opposite direction in half the cases. This value conflict may explain the personality disruptions which often occur in acculturation.

Liebow (1966), in his impressionistic study of streetcorner Negro males, found that although they did not conform to them, these Negroes accepted the larger society's goals and values. In order to reconcile their behavior-value discrepancy they created for themselves a fictional system of values which although in conflict with reality, enabled them to rationalize their failure.

Differences in value orientations affecting achievement in school and adjustment in school behavior have been demonstrated to exist across cultures (Kluckholn & Strodtbeck, 1961) although Helling (1967) found value structures very similar when students from the Turkish culture were matched with American students on the variable of father's education.

There are socio-economic class as well as ethnic differences in value orientations (Gunderson & Nelson, 1966; Larson & Sutker, 1966; Rettig & Pasamanick, 1962) although Brozovich (1966) did not find culturally deprived children to have values conflicting with conformity or success in school. Kohn (1959) suggests that parents of lower-class children are more concerned with the surface elements of behavior than middle-class parents who are more concerned with the attitudes and values which underlie good behavior. Brofenbrenner's (1962) review suggests that social class may be a major determiner of ethnic differences in moral development.

Male and female value orderings have been found to be similar within cultures but different across cultures (Barthol & Bridge, 1969). Males more often than females mention "having sexual relations," "joining the Military" (or "serving one's country"), "sports," and "obey laws" whereas females more often mention "kindness," "generosity," "cleanliness," "work hard," "get educated," and "helping" (depending on the culture from which they come). Natives of Kenya, Manila and Thailand are somewhat different from the United States in the extent to which they volunteer different categories of "good things to do" in response to ECHO system questions.

Mexicans and Americans, according to Peck (1967), each have a core culture pattern with much overlap but the American pattern is more characterized by a secure economic life, equalitarian friendliness, and comfortable self-assurance while the Mexican culture is characterized by a close-knit, highly emotionalized reciprocal dependence and dutifulness within a firmly authoritarian framework. The Mexican-American differs from the Anglo in our culture on some values but is basically compliant with the Anglo culture values (Romero, 1966).

Ausubel and Ausubel (1963) believe that the Negro comes to develop ambivalent feelings toward white middle-class values because he identifies with whites early and then is rejected by them and reverts his loyalty to his parents (most often the mother) and the values of the lower class.

A study by Dowd (1966) comparing teen-agers from Anglo, Negro, and Cuban refugee groups revealed that compared to the other two groups, Anglos placed high value on the material aspects of neighborhood and school while Cubans were more concerned with the people around them and Negroes valued quiet, clean streets. Anglos placed highest value on a job with a high salary and success while Cubans stressed having children. With respect to characteristics of peers, Anglos thought friendliness and helpfulness most important, Cubans considered only friendliness and Negroes placed most importance on politeness and respect. Anglos did not mention the latter.

Gorsuch and Smith (1970) report no differences between Negro and Anglo children with respect to values except in a few cases where sex or socioeconomic status interacts with race. Both groups varied widely in values. Borth (1970) found Negro fifth-graders to be predominantly oriented toward endurance, deference, dependency, and work. Autonomy, aggression, and dominance had the lowest value for them and they saw themselves as more acted upon than acting, more defending than coping.

Using a modified Harvard Value Study Questionnaire with Indian (Arapaho & Shoshone) and Anglo high school students, Tefft (1967) found the value orientations similar except that the Arapaho felt unable to make a firm commitment to any set of values rewarded by their peers and were characterized by apathy, low aspiration, escapism, and self-to-other alienation. Helper and Garfield (1965) found that Indian and Anglo adolescent values were quite similar and that to the extent that the Indian is acculturated (as measured by academic achievement), his values are increasingly similar to those of the Anglo. The most notable finding in this study is that Indians appear to see their racial group as more valuable than themselves as individuals while the reverse is true of Anglos.

Macgregor (1946) found that 'the future," "being on time," and "planning ahead" were significant values in the Anglo culture and much less important in Indian cultures. Helper and Garfield (1965) found "the future" ranked ninth among fifteen values evaluated by Anglo boys while Indian boys ranked it eleventh; "being on time" ranked fourth for Anglos and tenth for Indians; "planning ahead" ranked second for whites and fourth for Indians, lending some support to Macgregor's findings.

Havighurst and Neugarten (1955) did the most extensive study of values among Indians, using seven tribes and a comparison group of middle-western Anglos. The most relevant portion of this study is that which compares Papago Indians (who exemplified the "average" of the four Southwestern tribes studied) with the Anglo group. One of the most interesting differences found between Papago and Anglo is in the concept of "shame." "Embarrassment before others" was a major source of shame to Papagos (36 percent of the boys and 24 percent of the girls mentioned it) but was of importance to only two percent of the Anglos. Anglos, on the other hand, were shamed by personal failure or inadequacy, a source of shame mentioned by only four percent of the Papagos.

The reasons for the discrepancy between Papago and Anglo with respect to the response "Embarassment before others" are attributable to the Papago socialization process. People outside the family exert a strong influence on the emotions of Indian children because members of the family rarely punish them, particularly in Southwest tribes. Instead, discipline is imposed by teaching the children to fear outside forces (supernatural beings and strangers) who will punish them. In contrast, Anglo children are punished by parents who love them and so internalize their morality. The Indian is controlled by public opinion or social pressure and consequently is very bashful and concerned with appearances. Thus he does not understand "remorse" or "shame" as inner guilt and, as a matter of fact, does not have a word in his language with this connotation.

There are seven value themes (as categorized by the researchers) in the Havighurst and Neugarten study of Indian children. The first is individual achievement in which Anglo boys and girls give three times as many responses as do Indians. Among the Indian tribes there is little difference. The second theme has to do with property and possessions which mean a good deal more to Indians of all tribes except the Zuni (the wealthiest of the seven) than they do to Anglos. The third theme is self-gratification or hedonism as seen in games, amusements, travel, freedom, and personal pleasures and comforts. The Papago and Anglos are highest in this theme. The fourth theme has to do with smooth interpersonal relations which gets little mention from the Papago who leads a relatively geographically isolated life of the Navajo who prefers to be alone. The fifth theme is family-centeredness which is always more highly valued by girls than boys but not much more important to any one ethnic group than to any other. Work, the sixth theme, is highly valued by all groups The final theme has to do with ceremonials and fiestas which are highly valued by all Indians who have them and particularly by the Papagos who hold fairly frequent fiestas.

In contrast to values, there are aversions (or what might be called "disvalues"). The first of these is "aggression by others" to which Southwest Indians are more sensitive than are Anglos. Indian children mention the second theme, "discipline and authority of others," more often than Anglos. "Illness and danger of others" is not as often mentioned by Indians as would be expected in view of their great familiarity with it. "Death of others" is of greatest concern to Anglos, particularly in comparison with Southwest Indians. "Death of self" is most often mentioned by the Sioux and sex reversals are evident with Anglo, Hopi, and Navajo boys more often mentioning it as the "worst thing" but Papago girls mentioning it more often than boys. Death is never mentioned by the Navajo for whom the subject is taboo. "Illness and accidents of self" is the most frequent theme of boys except the Navajo. Papagos are high in use of this theme and Anglos are low. Fear of the supernatural finds Anglos extremely low and all Indians higher, a characteristic attributable to their socialization in which this fear controls their behavior. Objective danger is high among the fears of both Papago and Anglos.

With respect to sex differences in values, Indian boys and girls are much more alike than are Anglo boys and girls. In general, however,

boys are more interested in achievement, gaining property and possessions, and fear of objective danger. Girls are more timid and afraid of the supernatural. This is reversed in the Navajo where girls have masculine patterns and boys have more feminine ones.

With respect to age, there is a decreasing egocentricity and fear, and increasing pleasure in ceremonials, the value of achievement, work, and concern for others.

There are seven morality themes in the Havighurst and Neugarten study. The first is "competence" which, since it includes work, gets a very high response from Indians and less from Anglos. "Self-restraint," on the other hand, is mentioned by 26 percent of the Anglos and rarely by Indians who do not have a problem with impulse control. Indians and Anglos agree on the importance of "personal virtues" but Anglos are much more concerned with relations to authority than are Indians. "Regard for others" is quite important to Indians (except Navajo). The same is true of "service." Anglos are midway in regard for others and low on service. "Sex" gets few mentions although the Navajos, because of their isolation and incest taboos, give it relatively high (five percent) mention.

With respect to social institutions approving or disapproving of behavior, all groups agree that the family is most important. School has some importance to Anglos but not to Indians. Church does not figure in Indian life at all and little in Anglo. The Papago sees the family as the almost exclusive authority for morality. In the Anglo group the family is first but authority is also attributed to teachers, peers, and other sources. Usually the mother is the primary authority source although for the Papagos the father takes precedence in this respect.

It should be borne in mind that there are differences between Indian tribes with respect to many values. There is no such thing as an "Indian value system" since each tribe is unique. In all ethnic groups it can be assumed that value systems develop out of the child's socialization pattern. As an example of divergent patterns among Orientals, Candill and Weinstein (1969) report on the differences between Japanese and American mothers. The Japanese mother has as her goal a passive and contented baby and to this end she spends more time with her children and emphasizes physical contact over verbal interaction. American mothers, on the other hand, want active, self-assertive babies and so they emphasize verbal interaction. These divergent behaviors are learned by the infant by the time he is three or four months old and the differences remain throughout childhood.

In summary, it can be said that to the extent that either ethnic or socioeconomic groups vary with respect to the techniques they employ in socializing their members, differences in values can be expected. These differences will undoubtedly manifest themselves at the operational or instrumental level, particularly when the divergent groups exist within a larger and more homogeneous culture as they do in the United States.

It is impossible to determine from work published whether socio-economic factors outweigh ethnic or vice versa in the determination of values (and/or in socialization practices). It is also impossible to determine to what extent findings of similarities and differences in value systems is a function of attempts on the part of the ethnic minority to simulate the attitudes of the majority.

Another problem in comparing studies arises out of the diversity of approaches to determining values. In some studies data are based on impressions derived from interviews. In others, the respondents are provided with lists of values which they are required to rank or to rate. In still others, the investigator leaves it up to the respondent to generate his own values. While this last method is probably the best, it is not only time-consuming but leads to erroneous conclusions if the respondent fails to mention something not because it is not important but because it has never become an issue (i.e., he values it highly but since he has always had it and never been threatened with its loss it does not occur to him to describe it).

Finally, it should be pointed out that value differences are undoubtedly a function of a combination of many factors: ethnic group, sex, age, area of the country, socioeconomic level, religion, presence of parents in the home, health, etc. It should, therefore, be understood that the study of a sample of Negroes (or any other minority group) from one school district does not permit one to generalize to other Negroes or to other school districts. Few, if any, studies have selected random samples of the ethnic groups they compare and failure to do so may, in part, account for conflicting results.

Test Construction

Measures of Values

There have been two major approaches to the measurement of values. The first is the conventional test construction method; the second is one in which broad, open-ended value questions are asked. The classic test of values continues to be the Allport-Vernon-Lindzey Study of Values (Allport, Vernon, & Lindzey, 1960) which has been criticized as being based on a theory (Spranger's types of man) which has never been verified. It is appropriate for adults or adolescents, but not for children, and provides ipsative scores. Shooster (1957) has developed a pictorial test of the same values, also for adults. Its quality is questionable.

Mason (1968) developed his Value Orientation Scale with emphasis on the "pleasantness-unpleasantness" dimension rather than on the "importance" or "frequency of experience" dimensions. This scale is also appropriate only for examinees with reading skills. Gorlow and Noll (1967) developed a test of values by administering value statements in sets of three for ranking. They factor analyzed weighted statements to obtain eight value orientations applicable to adults.

Scott (1965) developed a values test by having raters sort into categories the answers which college students gave to the questions: "What kinds of things would make a person especially good?"; "Think

of a person you admire. What is it that you admire about him?" The resulting categories were: (1) intellectualism; (2) kindness; (3) social skills; (4) loyalty; (5) academic achievement; (6) physical development; (7) status; (8) honesty; (9) religiousness; (10) self-control; (11) creativity; and (12) independence. Using Scott's technique, Gorsuch (1970) obtained values from fourth, fifth, and sixth grade children of upper and lower class Negro and Anglo races. He derived seven useable categories: (1) good manners; (2) kindness to others; (3) academic achievement; (4) physical development; (5) diligence; (6) obedience; and (7) "good" (unspecified).

Thomas' (1963) values test is designed for adults and measures (1) Aesthetic (form, harmony, symmetry); (2) Material (money); (3) Power (leadership, domination); (4) Intellectual (theory, observation); (5) Humanitarian (love); and (6) Religious (mystical) values.

While some tests of attitudes have been developed for small children, they were not specifically designed as tests of values and will be discussed in the following section.

The open-ended approach was probably first used in the late 19th century by Osborn (1894). He asked children what they should do to be called "good" or "bad." He then classified their responses and found, for example, that more than half mentioned "obedience" while less than one-fourth mentioned "truthfulness." This approach was formalized by Bavelas (1942) and employed by Kalhorn (1944) and Havighurst and Neugarten (1955). Kalhorn used it with Mennonite and non-Mennonite school children and found that religion and intensive work were the highest values for the Mennonites while cleanliness and individual achievement were highest for non-Mennonites. The technique involves asking the child to provide several responses to questions such as "What is a good thing that a person like you could do?" and "Who would praise you?" or "What is a bad thing that a person like you could do?" and "Who would scold you?" Among Mennonites "God" was chosen as the approving or disapproving being, among non-Mennonites, peers were more important. Havighurst and Neugarten's elaboration on the procedure included the development of a number of questions in addition to the conventional "good" or "bad" ones. The moral ideology questions were: "What could a boy (girl) of your age do that would be a good thing to do, so that someone would praise him (her) or be pleased?" and "Who would praise him (her) or be pleased?" The same questions were rephrased to "bad thing to do" and "blame." Emotional responses were obtained by posing a statement followed by questions such as "Sometimes people are very happy. Have you ever been very happy? Can you remember when you were very happy? Tell me about it." Similar questions were asked for sadness, fear, anger, and shame. Then the child was asked "What is the best thing that could happen to you?" and "What is the worst thing that could happen to you?" The results obtained using these techniques appear in other portions of his report.

Most recently this open-ended approach has been developed into the ECHO system (Barthol & Bridge, 1968; Barthol & deMille, 1969). In this system, each subject receives ten "good-thing" cards and ten "bad-thing" cards on which he is to answer "What is a good (bad) thing

to do?" and "Who would approve?" If done by advice in writing the task is rapid and easy. When third-graders are interviewed, it takes one and a half hours per child. An interesting sidelight to the application of this technique is that Kalhorn (1944) suggested that "like" and "dislike" could be substituted for "good" and "bad" in its administration. When the ECHO system was used with subjects in Thailand who did not understand the "good-bad" connotation, the "like-dislike" terms were used and elicited the same categories of response as would have been expected under the conventional conditions. Once again, the affective or "pleasantness-unpleasantness" dimension of value is supported.

Havighurst and Neugarten obtained six-month retest reliabilities of .91 for girls and .86 for boys in their application of the Bavelas system. Barthol and deMille report retest reliabilities ranging from .71 to .84 and split-half reliabilities ranging from .66 to .83 with the ECHO system.

Tests for Children

As Hoepfner (1970) states, one of the major complaints in educational testing is that the affective components have been neglected. Their importance is asserted in a study by Wooley and Patalino (1970) who reported on a survey in which school principals, elementary school teachers, and parents rated 106 educational goals in terms of the characteristics children should have as a result of school experience. Affective goals were rated higher by all groups than were cognitive goals. Self-esteem was ranked first by administrators. Most raters considered self-confidence, friendliness, generosity, respectfulness, citizenship, avoiding aggressive behavior, and liking school as more important than appreciation of various subject matters. Practicing health and safety were given high ranks. This study is directly relevant to the project reported here since several of these affective variables have been included in the measure developed.

An evaluation of current tests for elementary school children (Jansen & Hoepfner, 1970) gave them generally poor ratings for both content and predictive validity and also found them to have poor reliability. Tests were criticized because they were inappropriate to children's everyday activities and were too difficult for all but the gifted in the lowest grades. Despite these criticisms, it is useful to examine some of the tests which have been designed to assess affective dimensions in small children.

If the term "test" is taken in its literal sense, it is construed to mean a measuring device in which stimuli are presented to an examinee in a standardized manner with instructions as to how he is to respond. Stimuli may be verbal, pictorial, or situational. Responses are behavioral and usually verbal (oral or written). Despite the fact that this project is an attempt to construct a pictorial, objective, and self-administered test for young children, most studies of the affective characteristics of children have been oriented toward "testing" in terms of observations and/or ratings of these characteristics. The results of these studies are worth considering since they provide useful cues to the interpretation of the results of this project, particularly where factor analytic techniques have been used.

According to Gupta (1969) there are basically two types of approaches used in the assessment of personal characteristics of children. One approach is characterized by the extraction of a large number of factors, oblique rotations, low loadings of most variables on each factor, single items as variables and "factor names unlisted in a desk dictionary." This approach is typified by Cattell and his associates (Cattell & Coan, 1950; Cattell & Coan, 1959; Cattell & Peterson, 1959; Peterson & Cattell, 1958). The second approach extracts few factors, uses orthogonal rotations, has high factor loadings for several variables on each factor and produces one or more of the following factors: (1) adjustment or maturity; (2) sociability; (3) extraversion-introversion; (4) emotionality; (5) conformity or compliance; and (6) independence, self-confidence or self-sufficiency.

Koch (1934) found three factors exemplified in nine activities: (1) maturity; (2) nervousness-emotionality; and (3) aggression. Williams, H. M. (1935) found two: (1) self-confidence and (2) sociability. Richards, T. W. (1940) found three: (1) self-sufficiency; (2) conformity; and (3) likeableness. Maurer (1941) found three: (1) adjusted-nonconformist; (2) adjusted conformist; and (3) serious-cautious. In a later study, Koch (1942) derived two second-order factors from nine: (1) socialization and (2) expansiveness-restraint (or introversion-extraversion). Baldwin (1946) found three: (1) desirability (the "good" child); (2) conformity; and (3) social poise. Peterson (1960), having abandoned the Cattell approach, found two: (1) general adjustment and (2) introversion-extraversion.

The results of these observational-rating factor-analytic studies are included here because they bear a relationship to the ultimate factor-analytic product of the Values Inventory for Children. The approach taken in this project has been the one adopted by those in the field who work on the assumption that children of the ages between six and eight or nine are as yet relatively undifferentiated with respect to the concepts they can express and that, therefore, the number of dimensions of personality, attitude, or value to be identified is small. It should also be noted that when a "socialization" factor or dimension appears, it is impossible to say--without further research--whether this socialization factor is identical with (or to what extent it is related to) the social desirability response set. To the extent that a child has learned what is "expected" in terms of social norms, he has matured socially. To the extent that an adult answers "test" items in the socially desirable way, he is considered to be dissimulating. This problem will be examined in a later section but for the present time, it is the experience of the project staff that children within the age range tested do not dissimulate and that socially desirable answers to test items on the Values Inventory for Children are evidence of a maturity in social perception.

The most promising tests to date have been pictorial. Stangel (1970) suggests that in the development of a test of interests for grades one through three, reliability should be increased by using pictorial items because they are less ambiguous than verbal items and are more appropriate for those with limited reading capacity. Hudson (1967), however, points out that cultural factors affect perception of pictures and that their effectiveness depends on the form of representation and

the kind of sample perceiving the picture. Since no "general" public exists, he says, pictures must be made to suit the groups for which they are intended.

Despite the fact that nonverbal items may be constructed to be "culture-fair," such attempts are not generally successful. Knowles and Shah (1969), for example, report on a nonverbal test designed to be biased toward East Indians which was, nevertheless, less effective for both that group and American innercity Negroes than it was for white suburban and laboratory school children in the United States. It can be concluded that while pictorial stimuli may be most appropriate for young children, the pictures must be equally meaningful and identically interpreted by every child who views them if test results are to be valid.

A number of potentially fruitful tests have been devised using the pictorial approach. Sines and Pauker (1966) describe the development of the Missouri Children's Picture Series (MCPS) in which children sorted 238 drawings of children engaged in various activities or situations into two categories: "fun" or "no fun." Groups on which the test was developed included children in grades three through six and juvenile offenders. Of six scales, those validated were: (1) conformity; (2) masculinity-femininity; and (3) maturity. Those not validated were: (4) aggression; (5) inhibition; and (6) hyperactivity. Correlations with IQ (WISC) ranged from .24 to .41. Retest reliabilities after six days ranged from .58 to .78 and after six months from .20 to .70. This writer questions the utility of computing six-month retest reliabilities for young children since they can be expected to change rapidly in those things which they consider to be desirable.

Cohen (1967) reports on the development of a nonverbal test of young children's attitudes toward school based on a technique originated by Biber and Lewis (1949). Twenty sketches depicting teacher-child interactions are showed. The child's response is in terms of what happened before the scene and what he thinks will happen next in most cases. Constructs upon which the test items were developed are: (1) the teacher as an accepting vs rejecting adult; (2) the teacher as a punitive vs nonpunitive adult; and (3) teacher rewards and punishments for schoolwork vs teacher rewards and punishments for classroom behavior. Four judges categorized sketches by construct with 61 to 89 percent agreement among the four and 80 to 98 percent agreement among three.

Another test for assessing children's attitudes toward school by using drawings depicting animals in school or in school-related situations is described by Panther (1967). Strickland and Klein (1970) describe the Attitude to School Questionnaire (ASQ) designed for first-graders. In this test the child looks at a series of 54 cartoons and listens to directions. He responds by marking a face with an expression which says he "likes" or "doesn't like" what is depicted. Six strong factors emerged from a factor analysis of this instrument: (1) attitude toward school; (2) attitude toward schoolwork (math, reading); (3) attitude toward teacher; (4) attitude toward principal ("school authority"); (5) attitude toward "show and tell" activities; and (6) attitude toward peers and play activities. A related test reported by Askov (1969) is a pictorial measure of attitude toward reading. It consists of nine

other activity pictures, each paired with three reading pictures. Total score is the number of times the child chooses a reading picture over the paired activity. Retest reliability after one week was .90. Mean scores for children chosen by teachers as high in reading interest were significantly higher than mean scores for children designated as low.

The second most prevalent type of test now being developed is the test designed to measure self-concept. Probably the best known and most carefully prepared of these is the Piers-Harris Self-Concept Scale (1969) which is based on Jersild's (1952) categorization of collections of children's statements about what they like and dislike about themselves. However, it requires a third-grade reading knowledge if group-administered. It has good reliability and correlates with other inventories and with teachers' and peers' ratings.

Woolner (1969) reports on the Preschool Self-Concept Picture Test (PS-CPT) which includes ten paired pictures depicting a boy or girl who is either: (1) dirty or clean; (2) active or passive; (3) aggressive or non-aggressive; (4) strong or weak; (5) accepting or rejecting a male figure; (6) happy or unhappy; (7) accepted or unaccepted by a group; (8) sharing or not sharing; (9) dependent or independent; and (10) afraid or unafraid. The child is asked, "Which boy (girl) are you?" and "Which boy (girl) would you like to be?"

Bolea, Felker, and Barnes (1970) report on the Pictorial Self-Concept Scale (PSC) in which children from kindergarten through fourth grade sort 50 cartoon picture cards into three piles: (1) "like me"; (2) "not like me"; (3) "sometimes like me." These reflect, as does the Piers-Harris, Jersild's (1952) six-area framework. Split-half reliability is reported as .85 and the test correlates significantly with the Piers-Harris.

Brown (1966) developed a procedure in which he took polaroid pictures of the child and then asked questions about fourteen characteristics (e.g., happy-sad, clean-dirty, good looking-ugly, smart-stupid, good-bad, healthy-sick, etc.) in four ways: (1) "Is (child's name) _____?"; (2) "Does the teacher think (name) is _____?"; (3) "Do others think (name) is _____?"; (4) "Does mother think (name) is _____?"

The Children's Self-Social Constructs Test (CSSCT) reported by Long and Henderson (1967) is another measure of the same type and includes: (1) self-esteem; (2) social dependency; (3) identification with and preference for mother, father, teacher and friend; (4) realism as to size; and (5) minority identification. It is individually administered. The child is assigned a symbol (circle) to represent himself. The higher he places his circle in a column, the higher his self-esteem score. If he places his circle inside a group of circles, he is scored for social dependency. Identification is measured by his placement of his circle in relation to circles representing significant others. Preference for these others is determined by forced choice of placement near to only one. Realism is measured by selection of a circle of the appropriate size with respect to other circles. Minority identification calls for a choice by Negroes of a shaded circle from among white ones. Odd-even reliabilities range from .48 to .85 among first-graders.

The technique used in the Children's Self-Social Constructs Test is derived from Kuethe's (1962) measure of separation between objects which was based on the finding that people are prone to place elements in linear order and more readily do so from left to right. Ziller, Hagey, Smith, and Long (1969) used this method as a measure of self-esteem. They provided children with six circles, each with a description: (e.g., "Yourself," "Mother," "Teacher," etc.). The child then placed himself in a row with others. The split-half reliability was .80 for grades seven through twelve and .85 for adults. Retest reliability for grades six and seven was .54.

Tests relating to prejudice have been developed by Renniger and Williams, J. E. (1966) and Williams and Roberson (1967). Renniger and Williams used a version of the evaluative factor of the semantic differential as applied to pictures of black and white animals which were responded to as "good" or "bad," "clean" or "dirty," "happy" or "sad," "nice" or "awful," etc. The child was given a matched set of two pictures, one of which was white and one of which was black (e.g., one black horse and one white horse) and asked, "Which is the good horse?" and so forth until all evaluations were complete. Williams and Roberson revised the original by adding new dimensions (pretty-ugly, smart-stupid, kind-mean) and dropping "happy-sad." They also used people in the picture series and had children respond with stories.

A test of interests is currently under development and is reported by Stangel (1970). It is pictorial but requires the child to circle a letter response corresponding to his feeling about the picture. Hypothesized dimensions for this test are: (1) active play; (2) artistic; (3) domestic; (4) mechanical; (5) outdoor; (6) person orientation; (7) passive play; and (8) scientific. The items are being factor-analyzed. In the construction of this test developers wisely pretested to determine that a 90 percent level of recognition would be obtained from first-graders.

Two additional tests are worthy of mention. First, Cicerelli, Cooper, and Granger (1968) devised the Children's Attitudinal Range Indicator (CARI) to evaluate the attitudes of Head Start children toward themselves and others. It consists of 32 cartoon-type picture stories to which the child responds by selecting a face representing the pleasantness or unpleasantness of his feeling about each story. The test is individually administered.

The last remaining test of importance to be mentioned in this review is the Gumpgookies test (Adkins & Ballif, 1970) which is designed as a measure of motivation to achieve for very young children. The test is individually administered and requires the child to choose between two Gumpgookies (amorphous figures) depicted as having different characteristics. Response sets (left-right, order of alternative, position of item in test) were predominant in the first analysis but having been factored out, sufficient variance remained to satisfy the theoretical constructs upon which the test was based. It is individually administered and appropriate down to the preschool level.

Having reviewed the tests now in development which employ pictorial stimuli, a word should be said about pictorial responses. As was

noted, Strickland and Klein (1970) have used "face" responses to pictorial stimuli indicating "like" and "dislike" of the stimulus. Stabler Johnson, Berke, and Baker (1969) also report success in using a smiling face and a frowning face as responses when preschool children are asked to sort forty objects according to their feelings about them. Cicerelli et al. (1968) used a smiling, neutral, and frowning face to express attitudes toward picture-stories. The usefulness of a pictorial representation for children six years old as compared with verbal desirability descriptors was demonstrated by Kleiger and Walsh (1967) when they used nine pictures of a face ranging from a deep frown to a bright smile with children as young as four and correlated these responses with ratings obtained on a verbal scale. The result was a .90 correlation. Ratings of a set of items by both standard and pictorial rating methods by fifth graders and adults correlated .89 and .96, respectively. These results indicate that children can respond equally well to verbal indicators ("like very much," "like some," "don't care," etc.) as they do to faces which are broadly smiling, slightly smiling, indifferent, etc.

All of the tests discussed in this section are always individually administered, with the exception of the tests devised by Sines and Pauker (1966), Bolea (1970), Askov (1969), Strickland (1970), and Stangel (1970), which can be self-administered only with children who are capable of understanding and following instructions. The lowest grade at which self-administration can be expected to produce reliable results is probably the third (ages eight or nine years of age).

Despite the evident limitations, it is apparent that it is possible to construct reliable instruments to measure variables in the affective domain which are useful in assessing the personality, attitudes, and values of children. It is also evident that such efforts are in their infancy and that what is needed is a battery of reliable instruments which are relevant to the goals of education. Ideally, such instruments will consist of item stimuli which are meaningful to all children of all subsets of the American population and response modes which these same children can use with consistency. They will also be designed in such a way as to tap those dimensions of the affective domain which are indicative of attitudes, feelings, or values conducive to (or antithetical to) self-fulfillment of the child within the society in which he lives.

Problems in Test Construction

Meaningfulness of items. One of the major problems in constructing tests for young children arises out of the child's limited ability to express himself verbally and his concommitant limited ability to understand what is said (or presented) to him. The unreliability of small children's test results is often actually attributable to an "unreliable" test constructor. It is a rare event when the author of a test publishes information as to the level of understanding reached by his subjects, with respect to each of the items included.

Only by a thoroughgoing process of personal interaction with a large sample of children is it possible to know what an item "means" and whether or not its meaning is uniform for the entire sample. Item

stimuli must be constructed in such a manner as to be amenable to only one interpretation. Item responses must be similarly uniform in meaning. For example, in the early stages of item construction of the Values Inventory for Children, a picture was drawn to illustrate the concept of "displaying one's products" in the hope that this concept would relate to self-esteem. Presumably, the shy and insecure child will not want others to look at things he has made. Consequently, a picture of the boy or girl representing the examinee was drawn in which he was depicted as hiding (in the "a" choice) or showing (in the "b" choice) a clay figure he had made. This figure was first in the shape of a man and children responded to it as, for example, a "gingerbread man" which they didn't want their friends to eat. The model was changed to a dog. Other responses were, "It isn't nice to hide things from your friends" or "I'm hiding it so I can surprise them and show it later." Some could not figure out what the picture meant at all and thought the clay was mud and they would get dirty playing with it. With this variety of misunderstanding, the item had to be eliminated.

The other problem which arises with respect to item response is that some children tend to select an inappropriate one. For example, in the interview they will say they really "like" what is going on in the picture but will mark the face that says "I don't care" or "I don't like it." These problems must be overcome by thorough training in the meaning of the response format.

Although the problem of meaningfulness here was one of checking children's interpretations of pictures, it can be assumed that when young children are administered verbal stimuli (whether they read or listen), similar misunderstandings or misinterpretations can be made with respect to words.

It is obvious that not all children are capable of understanding all items equally well. Some children never grasp the meaning of items either because they cannot (or don't want to) sustain attention or because they are not sufficiently experienced to comprehend. However, it is imperative that a high level of understanding be evidenced before any test is administered for purposes of analysis. In this project, a 90 percent level of comprehension was considered acceptable. Most items attained a 95 percent level. The manner in which the determination of meaning was made is discussed in the section which describes validity checks.

Variability. One of the ways in which people differ in their responses to items which call for affective judgments or ratings is in the amount of variability of response. For example, it has been found that when it comes to assigning extreme values in affective judgments, males are more conservative than females (Maccoby, 1966) and that twelve-year old Japanese children make fewer extreme responses and significantly more intermediate responses than do American children (Zax & Takahashi, 1967). It has also been found that the variability of scores on the Piers-Harris Children's Self-Concept Scale decreases as grade level increases.

Osgood, Suci, and Tannenbaum (1957), using the semantic differential, found differences among different populations in their choice of extreme, intermediate, or neutral points on the seven-point scale. College students used intermediary positions less than non-students. American Legionnaires tended to make exclusive use of either the extremes or the extremes and neutral point. Berg and Collier (1953) found that high-anxiety males made more extreme ratings on the Perceptual Reaction Test than did low-anxiety males. Zax, Gardiner, and Lowy (1964) obtained support for the hypothesis that more extreme ratings will be given by immature or poorly adjusted individuals than by those who are mature and well-adjusted. This finding led to an exploration of the hypothesis that a tendency to respond in an extreme manner is a function of the developmental level of the respondent. This hypothesis was tested by Light, Zax, and Gardiner (1965) with the result that brighter (higher IQ) and older children in grades 4, 8, and 12 made significantly lower extreme scores and higher intermediate scores when their responses were summed. No significant differences attributable to sex were discovered.

Although there is not much information on the subject of ethnic differences in variability of response, it might be hypothesized that Indians and Orientals will tend to be more noncommital (intermediate) with respect to affective responses. No hypotheses are made for any other group. Differences between groups, grade levels, and sexes are examined in the analyses.

Social desirability. Campbell (1960), in making recommendations for test standards, suggests that new psychological tests be examined regarding their degree of correlation with social desirability measures. "If correlations are reported with trait-appropriate or criterion measures, then it should be demonstrated that the new test predicts these measures better than does the general social desirability factor (p. 549)."

Cowen (1966) has found it possible to assess the social desirability response tendencies of children at age six and believes that this type of judgment may be clearly evolved and well-crystallized at this age. Cruse (1966) found significant correlations between the frequency of item endorsement and item social desirability scale values at all age levels from three to six, increasing in size with age.

Social desirability response tendencies are considered by Crowne and Marlow (1964) to be related to what they call "need for approval." A scale to measure this characteristic is called the Children's Social Desirability Scale (CSD) (Marlow & Crowne, 1961; Crandall, V. C., Crandall, V. J., & Katovsky, 1965) and it has been demonstrated that children with high CSD scores are lower in academic achievement than are those with low scores (Crandall, V. C., 1966). Females in all grades are higher in social desirability scores than males. These scores correlate -.40 with the instigation of physical aggression, -.49 with verbal aggression, and .33 with withdrawal for girls. Correlations for boys are insignificant (Crandall, V. C., 1966).

It seemed from response to pre-testing that few items in the Values Inventory for Children (VIC) were subject to a social desirability

response set. Items which were susceptible (e.g., direct overt aggression items which children universally rejected) were eliminated. It was noted in pretest that certain groups tended to try to determine what the tester wanted to hear before answering. This was predominantly true of middle-class Mexican-Americans. On the other hand, Negro children were surprisingly willing to give "undesirable" responses.

At some future time it will be necessary to establish the extent to which social desirability enters into the VIC. This will probably be done by asking students to "fake good" and identifying those items which receive significantly different responses when compared with responses under normal testing instructions. The VIC may also be administered with the CSD to samples of children at different grade levels.

Test Administration

There are a number of problems which consistently present themselves when an examiner attempts to administer tests to small children. As has been seen on page 20 of this chapter, most children's tests are individually administered. In such cases, the examiner is trained in the use of the test materials as well as in the difficult task of relating to children. The use of a test which is essentially self-administering requires: (a) that the examiner obtain and hold the attention and interest of a group of children; (b) that he thoroughly train them in the tasks involved in making responses to the stimuli which constitute the test; (c) that he ascertain that each child understands his task; and (d) that he monitor the test performance of all the children he is examing. This is particularly true at the preschool and lowest grade levels and becomes less important as children become more mature and self-disciplined. If the test contains a sufficiently comprehensive and comprehensible training section and if the examiner is skilled in establishing rapport with small children, problems of inattention, misunderstanding, copying, carelessness, and resistance can be handled.

The second major problem is the introduction of bias into test responses. One source of bias is the frame of reference of the examiner. Examiner-bias is most serious when the examination is unstructured as in the interview or the administration of a projective test. As Piaget (1948) remarked, ". . . it is rather disturbing to find that the children one interviews oneself, answer more often in conformity with one's own theory than do the children interviewed by other people! (p. 210)."

Another source of bias may arise from differences between the examiner and the child (or children) being tested. These differences may be related to sex, socioeconomic status, or ethnic group. They are also undoubtedly related to age. It had originally been proposed in the conduct of this project that examiners be of the same ethnic group as examinees and, possibly, students in the same school in order to reduce this bias. The reasons for this proposal were based upon research findings in the published literature which indicated that such differences might pose a problem.

Katz (1964) reviewed research on the race-of-examiner variable and found that most studies had been done using southern Negro college

students from whom white testers generally obtained better performance than Negro testers. The generalizability of these findings, according to the author, should not be extended to elementary school children in the urban north. Baratz (1967) found Negro college students tested by a Negro examiner to be less anxious than those tested by a white examiner. Katz, Roberts, and Robinson (1965), using a digit-symbol task of three levels of difficulty, found that Negro subjects worked best with a white experimenter if the instructions stated that it was a test of eye-hand coordination but did slightly better with a Negro experimenter and slightly worse with a white experimenter if the instructions stated that it was a test of intelligence. Kennedy and Vega (1965) found that the only examiner race effect on the performance of Negro children in grades 2, 6, and 10 was attributable to their increment under a Negro examiner "blame" incentive as opposed to their lack of improvement under white examiner blame. Praise and control (no incentive) conditions resulted in improvement irrespective of examiner race. In a similar study, Allen, Dubanoski, and Stevenson (1966) tested white and Negro boys in grades 1, 2, 4, and 6 using white and Negro testers and conditions of (1) praise, (2) criticism (blame) and (3) control. Differences in performance of a simple task were associated with the race of the subject, the race of the experimenter, and the interaction between the two. Experimenters of the same race as the subject produced greater increments in response. In another study (Katz, Henchy, & Allen, 1968) found that performance on a verbal learning task by Negro boys receiving approval or disapproval from a white or Negro male experimenter improved with Negro testers and an approval condition. In a study of the effects of pretesting, race of examiner, and familiarity of the examiner with preschool Negro children taking the Binet and Peabody Picture Vocabulary Test it was found that none of the variables had any effect on test performance (Costello, 1970).

With respect to sex, Bittner and Shineding (1968) demonstrated that male examiners elicited better performance from third graders on Piaget's conservation tasks than did female examiners. Pedersen (1968) found a significant effect of sex of examiner in testing third graders on the WISC Arithmetic subtest. Female examiners elicited higher scores from both sexes and subjects performed best under examiners of the same sex.

In summary, although Rosenthal (1966) reports examiner effects on intelligence test performance and Shuey (1958) implies that the race of the examiner has no significant influence on the performance of Negro subjects in intelligence test results, neither conclusion can be justified on the basis of the evidence. Most studies have involved tests (or experiments) in which some level of performance might be assumed to be expected. Results from studies involving college students who are not only more conscious of race differences but also more threatened by testing than are small children, are hardly applicable to boys and girls in the first, second, or third grade.

Because the test devised for this project was non-threatening and because the examiner who administered tests to individual children in the initial stages found them to have no reluctance to express the most

socially "undesirable" responses to items, the problem of sex and race of examiner was considered irrelevant to final testings. Only where culture and language worked a hardship on the examiners (who were white females) were assistants enlisted from the community.

Dimension Model

Rationale

It was considered necessary to construct the values instrument in such a manner as to tap those dimensions of attitude which are not only of importance to educators but which might also be expected to differentiate between ethnic groups. Since there is also some debate as to whether ethnic group is as great as (or greater than) socioeconomic status as a determiner of the educational problems of the "culturally disadvantaged," the model upon which test construction was based was one which has been demonstrated to apply to members of varying occupational levels. This model is derived from Maslow's (1954) hierarchy of needs.

Maslow's theory postulates levels of need ranging from the very basic needs for physiological sustenance to the most advanced level of self-actualization. The rationale employed here assumed that any object, person, or activity is valued on the basis of the needs felt by the evaluator. Any individual will move to the next higher level of need when lower needs have been satisfied. These needs will shift depending upon the momentary state of the individual but, provided he has assurance that there is some means to meet each need, he will be free to express others. Thus, while living in a poverty community, basic physiological needs can be expected to predominate. If these are satisfied, needs for safety are next in the hierarchy and will lead to the assignment of value to that which protects the individual from harm.

As one proceeds up the hierarchy, succeeding needs are for belongingness and love, importance, respect and self-esteem, independence, information and understanding, beauty, and, finally, self-actualization (a state in which all other needs are either satisfied or assured of satisfaction as they arise).

It seems reasonable to assume that for the individual whose need for love has never been met, self-actualization will be impossible since he will either be searching for love or compensating for it in some other manner. It also seems reasonable to assume that the higher the socio-economic level, the more needs are satisfied, and, therefore, the broader the scope of the things valued. Studies of job satisfaction, for example, confirm the hypothesis that at lower socio-economic levels rewards sought are more likely to be related to obtaining money to purchase the basic necessities of life and being assured of job security whereas at the higher levels (particularly managerial and professional) it is the intrinsic nature of the work and the opportunity for self-actualization which is valued.

It is not assumed that the hierarchy of needs and the values associated with each constitutes a static system. It does, however, provide

a framework within which to structure items designed to measure values as well as to identify the level of the value structure of any group (or individual) so measured.

After reviewing current affective domain research it was concluded that the model proposed encompassed all positive aspects of the domain. It did not, however, account for negative aspects. According to Maslow, those whose needs are persistently ungratified develop deviant (sociopathic, neurotic, etc.) behavior. In other evaluation systems such behavior is accounted for. For this reason and because the goals of educators include not only the development of positive characteristics (self-esteem, freedom from fear, friendliness, generosity, positive attitudes toward school, etc.) but the avoidance of negative ones (e.g., repression of aggression), it was considered necessary to add the negative dimension of aggression.

Dimensions Hypothesized and Previous Research Findings

Taking into consideration the previous research information, it was decided that the following categories of values were of greatest importance and were feasible for testing at the grade levels proposed.

Physiological values. These included choices of healthy vs unhealthy habits pertaining to food, sleep, care of self when sick, bathing, brushing teeth, and smoking. They also included attitudes toward health personnel (doctors and nurses). No tests were discovered which in any way measured health attitudes of children. One study (Muncy, 1967) found that Anglos and Indians (Navajo) in high school placed equal importance on cleanliness and modern health practices.

In their study of seven Indian tribes and one cross-section of mid-western Anglos, Havighurst and Neugarten (1955) found that the only tribe which mentioned "scarcity of food" as the worst thing which could happen was the Hopi since this particular tribe has a high anxiety level concerning food. In general, however, Indian children mention the security of property, food, clothing, and other possessions as sources of pleasant emotion and the absence of these things as sources of unpleasant emotions much more often than do Anglo boys and girls. The only exception is the Zuni tribe which is relatively wealthy and thus secure in this respect. These findings support Maslow's theory and the rationale behind this instrument.

Safety values. These included risk-taking and fears (of people, objects, places, animals, and the unknown). The research literature shows that girls have more fears than boys and children of lower socioeconomic status have a wider range of fear stimuli than do those of higher socioeconomic status (Sidana, 1967). Common fears, according to Sidana's study, are related to ghosts, darkness, shadows, big animals, strangers, and fathers. These findings were supported by Croake (1) who also found that girls and lower socioeconomic children held more fears than did boys and upper socioeconomic children. He found little difference between the number of fears for third, sixth, and ninth grade. At the third grade level the greatest fears were for natural phenomena,

Havighurst and Neugarten (1955) found that fears in Anglos were rarely associated with supernatural beings while for the Papago Indian this fear is substantial. On the other hand, Anglos tended to fear natural elements to the extent of about 33 percent while only 14 percent of the Papagos mentioned them. Animals were feared by 21 percent of the Anglo boys and 52 percent of the Papago boys. Figures for Anglo girls for this fear are lower (14 percent Anglo; 37 percent Papago). In general, Indian girls are more timid than boys and more afraid of the supernatural although this is reversed in the Navajo culture where girls are raised to exhibit masculine values and behavior. Fears decrease with age in all children included in this study. It has already been noted that the Indian child (particularly in the Southwest tribes) is disciplined by imposing fear of outside forces (supernatural beings and strangers) which he expects to punish him for wrongdoing.

With respect to risk-taking, it has always been assumed that boys are more willing to take risks than girls. Maccoby's (1966) review of the literature on sex differences bears this out in one preschool study, one study of eleven-year olds, and three studies of adult women. Jamieson (1969), however, found no sex differences although he did find that children ages ten to twelve from smaller familes tended to take fewer risks than did those from larger families.

Included in the Safety category was an item in which the picture-subject walked hand in hand with a policeman since it was thought that not only might the police be a source of fear, but that feared or not, children's attitudes toward them are a matter of concern. The only available literature on the subject is a study in which Derbyshire (1968) reported that Mexican-American third graders had greater antipathy toward the police than did Anglos.

Love values. These included matters relating to physical closeness to adults and peers, feelings about parents, feelings about religion, feelings about helping others, feelings about sharing, and feelings about home. Cultural differences are anticipated on the basis of the literature review which is briefly summarized here.

Mexican-Americans score higher on family values and authoritarianism than do middle-class Anglos (Ramirez, 1967). The cultural pattern of the Mexican is characterized by a close-knit, highly emotionalized reciprocal dependence and dutifulness within a firmly authoritarian framework (Peck, 1967). Henderson and Merritt (1968) also found Mexican-Americans high in "extended family," in valuing family life, in preferring relatives as associates, and in desire to travel to visit relatives.

When Anglos, Cubans, and Negroes were compared, Anglos and Cubans both placed love and togetherness at the top of family feelings while Negroes placed emphasis on mutual respect and communication (Dowd, 1966). Negro children, responding to questions as to "What does a father do?" and "What does a mother do?" gave the most positive responses to mother (Piowar, 1966). Boys and girls were similar in this respect but boys gave more negative responses to father than did girls. In another study, Long and Henderson (1967) found that Negro

children identified more with mother and less with father than did Anglos. Lower class children placed themselves (their circle symbol) closer to mother than did middle class children. Anglos placed themselves closer to father than did Negroes and for boys the choice of father was positively related to the presence of the father in the home. Similarly, Neale (1967) found attitudes toward "father" were positive in an average socioeconomic level school but not in a low socioeconomic one.

Among the Indian tribes and Anglos (Havighurst & Neugarten, 1955) family-centeredness is always more highly valued by girls than boys. The fact that the Papago seldom mentions family does not mean that there is less family solidarity but that members of families are less often absent than is true for Anglos and so they are taken for granted. So far as mentioning the father as playing a role in the child's happiness, the Papago tribe ranked sixth while the Anglo children ranked last among the eight groups studied. For mothers, however, the Papago ranked second and Anglos fifth. Comparing Anglos with Southwest Indians shows fathers as producing significantly more happiness for Indian boys and girls.

The Indian mother is more closely related to her daughter while the Anglo mother is equally related to both sons and daughters. Anglo fathers play less of a role both positively and negatively than do mothers for both boys and girls. Family members are more frequently associated with both positive and negative emotions for Anglos than they are for Southwest Indians.

Love relationships with peers are also included in this dimension. In one sense this dimension includes a variable which might be called "sociability." It may also include one interpretable as "dependency." According to other interpretations, it may represent "affiliation." The literature in this area is overwhelming. In general, it can be said that females exhibit more of this characteristic than males. Race differences are difficult to predict although Gorsuch and Smith (1970) report that Negroes mention affiliation more often than do Anglos as an important value

Among Indians smooth interpersonal relations vary with tribes as to their importance and while the Papago parents emphasize and reward them, the Papago child has more elbow room and is not so keenly aware of and sensitive to the quality of his personal relations. The Navajo, on the other hand, prefers to be alone and enjoy nature. The Papagos were the highest of all tribes in mentioning peers as involved in positive emotions (24 percent) as compared with Anglos who were third with 18 percent.

In Maccoby's (1966) review, four child studies of sex differences in need for affiliation found girls with the higher need in three and boys in one. Of the eleven adolescent and adult studies, ten favor women while the other favors men. Two preschool studies of interest in and positive feeling for others in the same review both favor girls while in ten studies of the same characteristic in children ages five to nineteen, girls have greater interest in nine and the remaining study reveals no difference. Gorsuch and Smith (1970) report girls more concerned

with the value of interpersonal relations than are boys. Phillips and McNeil (1968) found that girls seek good relations with both peers and authority figures more than do boys but there were no differences between Anglos and non-Anglos in this respect. It is interesting to note that Ringness (1967) found low achievers more interested in affiliating with peers than high achievers.

The manner in which one expresses love toward others is through generosity in sharing with or in helping them. This may sometimes be termed "altruism." In a study of children in grades two through six, Harris, L. A. (1967) reports that altruism increases with grade level and is unrelated to sex, birth order, school achievement, religious affiliation, or socioeconomic status. Heilbrunn (1967) explains the greater sharing tendency of females on the basis of the male's conditioning to competitive acquisitiveness. When Rutherford and Mussen (1968) compared generous nursery school boys with those lacking in generosity, they found that the generous ones identified with a warm, sympathetic, kind, and non-competitive father. According to Shure (1968) the characteristic of generosity develops earlier in childhood for the most generous adults (i.e., the more generous the adult, the earlier in life he became so).

In a study by Bachtold (1968) both average and gifted boys ages 12 to 14 were less supportive and benevolent than either average or gifted girls. In Maccoby's (1966) review of sex differences, twelve studies relating to nurturance are cited. Nine results favor the female, one favors the male and in the remaining two there is no difference. In experiments on role modeling and altruism, girls give more and are significantly more consistent in their giving than are boys (White, 1968). Gorsuch and Smith (1970) report that lower class black females, lower class white males, and lower class white females value "kindness to others" more than do middle class white males. Lower class black females also value it more than do lower class black males.

Probably the group which may be most expected to exhibit sharing in this study is the Papago tribe. Voyat and Silk (1970) describe the Indian as having "values which would make middle-class white America look culturally deprived (p. 73)." They go on to say that Indians are interested in people rather than things; they have a strong feeling of identity, belonging, and dignity and a profound need to share. Similarly, "regard for others" is the most important "personal virtue" to Indians (except the Navajo) in the Havighurst and Neugarten (1955) study and the same is true of "service." Anglos are midway among the tribes with respect to regard for others and low on service.

The only additional evidence for cultural differences to be presented here comes from Dowd (1966) who found that with respect to characteristics of peers, Anglos thought friendliness and helpfulness were most important. Cubans considered only friendliness, and Negroes placed most importance on politeness and respect. Anglos never mentioned these latter characteristics.

The only conclusions which may be safely drawn from the literature is that girls are more likely to be altruistic and concerned with people

than boys and that Indian children may be expected to exhibit more of this characteristic than do other ethnic groups.

Esteem values. These included feelings about assuming roles of leadership, pride in own productions, willingness to participate and compete, and level of aspiration with respect to achievement.

While self-esteem has not been often considered in quite the same manner as described in this report, it has been a major concern of many educators. Self-esteem is generally presumed to be a major aspect of self-concept or self-image and in this context a number of studies have revealed interesting but inconsistent findings with respect to ethnic group differences.

Negro children have more negative self-images in grades four, five, and six than do Anglos according to Deutsch (1960). In his study academic performance had little effect on self-image when high and low achievers were compared although Felber and Bahlke (1970) found that among white fourth grade children there was a positive relationship between self concept and the extent to which the children took responsibility for their academic success. Deutsch also postulates that the social role expectations of the Negro girl are less in conflict with middle-class value systems than are those of the Negro boy since she has a female model whereas the boy often does not have a male model.

Significant differences in self-concept were found among Negro fifth and sixth graders when three lower economic classes ($4,000 per year or more; less than $4,000 but self-supporting; welfare) were compared with one another (Crosswait, 1967). The higher the economic class the higher the self-concept. The effect of social class on self-concept is debatable. McDonald and Gynther (1965) found that sex and race markedly influenced the results when the Interpersonal Check List (ICL) (LaForge & Suczek, 1955) was used with Negro and white high school seniors but social class (as measured by parental occupation) did not. The same authors (McDonald & Gynther, 1963) obtained similar results from Negro and white subjects' reactions to statements about emotional states, physical well-being, and interest. Others (Bieri, 1961; Klausner, 1953; Van Evra, 1967) do find that social class affects self-esteem or self-concept.

Mercer (1967) found in studying Negro, Mexican-American, and Anglo children that all those raised in their own subcultures had equally positive feelings about themselves and about the way in which they were regarded by others. Carter (1968) supports the view that Mexican-American children have their own peer group to whom they look for self-esteem and do not rate themselves according to Anglo standards. Their self-concepts are not negative despite the tendency of Anglos to assume that they are. These findings are supported by Hepner (1970) in her study of Mexican-American boys.

Contrary evidence was obtained by Scheiner (1967), using the Ziller circle technique with fifth grade children. He found that Negro girls and Anglo boys had higher self-concepts than did Negro boys or Anglo girls.

This might be considered partial support for Deutsch's (1960) contention that the presence of a role model makes a difference in self-concept between Negro boys and girls.

A particularly relevant study by Long (1968), also using the Ziller "self-social symbols" method with preschool children and entering first graders, found Negroes lower in self-esteem than Anglos. Brown (1966), using polaroid pictures of children and a series of questions relating to the child as seen in the picture found that self-concepts of four-year-old Negroes of low socioeconomic status were lower than those of high-status Jewish children but all had high self-concepts.

Storm (1968) found that 91 percent of 34 Negro first grade children had both negative self-concepts and a distorted race image. Phillips and McNeil (1968) found that non-Anglos and girls were more afraid of negative valuations by others than were Anglos and boys. Non-Anglos were less confident in their ability to meet the expectations of others than were Anglos and the same was true of non-Anglo girls as compared with non-Anglo boys. The reverse was true of Anglo boys and girls, i.e., boys were less confident. Long and Herderson (1967) found that disadvantaged Negro children had lower self-esteem and a less realistic self-concept as to size and color than did white middle-class children.

Studies of the "culturally disadvantaged" child also reveal discrepancies in results. Witty (1967) characterizes culturally disadvantaged children as reflecting in their negative self-image the negative attitudes of others toward them which leads them to denigrate their potential for success in academic areas, reduces their level of aspiration, and leads to a need for immediate self-gratification rather than a willingness to wait and work for future goals. Soares and Soares (1969b), however, obtained results which would negate the assumption of negative self-image for culturally deprived children. They compared children in grades four through eight who were either culturally disadvantaged (income under $4000 per year; two-thirds Puerto Rican and Negro) or advantaged (income over $7000 per year; 90 percent white) with respect to self-concept, ideal self, and self as perceived by peers, parents, and teacher. Surprisingly, the disadvantaged had higher means on all scores except for Reflected Self-Classmates (i.e., peers' perception). Scores for boys decreased with age (grade level). Advantaged girls had higher scores than disadvantaged girls. In another study Soares and Soares (1969a) found that the advantaged more often saw themselves as happy, self-confident, trusting, and fearless while the disadvantaged more often saw themselves as competent, independent, and patient. Disadvantaged boys were higher in self-perceptions as adaptable, competent, relaxed, independent, patient, and kind than were advantaged boys. Disadvantaged girls saw themselves as more deliberate and independent while advantaged girls saw themselves as more happy, self-confident, and fearless. Soares and Soares (1970) conclude that disadvantaged children view themselves and think that others look at them more positively than do advantaged children. They also found that elementary school children have higher self-images than secondary school students and that in both advantaged and disadvantaged children there is a diminishing of self-image with age. The findings of Carter

(1968), Hepner (1970), Mercer (1967), and Soares and Soares (1969a; 1969b; 1970) may be partially explained by the tendency of non-Anglos to deny negative affect and motives (Phillips & McNeil, 1968). With respect to changes in self-concept with age and differences between sexes, Piers and Harris (1969) report none in grade levels four through twelve using their scale.

Part of the problem in self-concept measurement is the difference between self-report and self-concept (Parker, 1966). Self-concept is the internal organization of an individual's perceptions about himself; self-report is what he is willing and able to say when asked. Parker shows that sixth graders respond differently when reports are confidential (anonymous) than when they are not. Added to a tendency to be defensive or simply unrealistic, this self-revelation phenomenon may account for some of the discrepant findings.

With respect to self-concept (in the sense of self-esteem as represented by "high" and "low" self-image), there is some suggestion that children who are raised within their own ethnic group maintain a high level of self-esteem, at least until they are exposed to the larger culture which rejects them. There is also some suggestion that social class may be related to self-esteem although the data are by no means in agreement on the question. Studies of Negro girls and boys seem to indicate that there may be higher self-esteem among Negro girls than boys whereas the reverse may be true for Anglos. The results here, too, are not in accord. Finally, there is some indication that self-esteem decreases with age although it is not clear whether or not this is a function of broadening experience with different cultures or the result of increasing awareness of differences between oneself and others as the child matures.

Since this category also included willingness to compete as an aspect of self-esteem, the few studies published should be mentioned. Nelson, L., and Madsen (1968) found no differences between Negroes and Anglos or between middle-class and Head Start four-year-olds playing games which required cooperative interaction to get prizes. In one experiment with children ages seven to nine, Madsen and Shapira (1968) found that Mexican-American boys were less competitive than Mexican-American girls and Afro- and Anglo-American children of both sexes. In a second experiment, all three were highly competitive. In a third, three ethnic groups in Los Angeles behaved in a non-adaptive, competitive manner while a sample of village children in Mexico behaved cooperatively. Madsen (1967) found rural village children and lower-class urban children much more cooperative than urban middle-class children. Competition does not seem to be related to aggression in preschool children (McKee & Leader, 1958). Despite a paucity of information on the subject, it seems likely that white urban middle-class values dictate competitiveness and that this value may be expected to vary with ethnic group or social class.

Aesthetic values. This category included aspects of sensory experience and creative production. There is nothing in the literature on children to indicate that there might be ethnic, sex, or age differences in this respect.

Self-actualization values. This large category was designed to incorporate knowing, understanding, and maturity. As such it included interest in complex problem-solving, curiosity, willingness to assume responsibility, independence, academic interest, honesty, and obedience to authority.

The first subsection of this category pertained to children's attitudes toward teacher and school. Cohen (1967) says that attitudes toward school are probably most subject to influence in the first years. She found that children in first and second grade gave a large number of responses to pictorial stimuli in which they described the teacher as rejecting and punitive. First graders gave more of these than did second graders. Katz (1967) is of the opinion that the influence of teachers on Negro students, especially in the lower elementary grades, is probably great since they are still emotionally dependent on adults. The effect of rejecting teachers on a dependent Negro child (according to Katz) will probably be a strengthening of his tendency toward indiscriminant self-derogation of his own learning efforts.

It has been found that children in lower-class schools have less favorable attitudes toward teachers than do children in middle-class schools (Yee, 1966) and that regardless of scholastic standing, elementary school pupils from blue collar homes tend to perceive teachers as rejectant (Davidson & Ling, 1960). Neale (1967) found that attitudes toward "school books," "classroom," and "teacher" became more negative with increasing grade level from fourth to sixth.

Attitudes toward school have also been found to be significantly more favorable in females and Anglos than in males and minority groups when economically sufficient fifth and sixth graders are compared with welfare background students (Crosswait, 1967). In another study (Dowd, 1966) Negroes were found to have much more negative attitudes toward school than either Anglos or Cuban refugees.

On the other hand, Long and Henderson (1967) found that lower-class children placed themselves closer to the teacher than did middle-class children and girls did so more than boys when administered a test with symbols representing "teacher" and "me." (Middle-class Anglos placed themselves further away from teacher than did any of the other groups.)

These findings may be related to dependency (Jorgenson, 1967) which may occur because the perception of mother is highly correlated with that of teacher (Franco, 1965).

On the basis of the research literature it is difficult to make predictions as to ethnic differences although it is generally found that girls like school better than boys. Thus, they might be expected to enjoy school-related activities (e.g., reading, studying) to a greater extent than boys.

A second aspect of the self-actualization category has to do with what might be called "responsibility." There is no basis for predicting sex differences in this characteristic but age is expected to increase the extent to which the child feels socially responsible.

A third aspect of self-actualization (maturity) involves independence (as opposed to dependency). It has been found that Anglo high school students place a higher value on individualism than do Navajo students (Muncy, 1967), but Gorsuch and Smith (1970) found that Negroes more often mentioned independence as a value than did whites.

Dependency is the second most often studied sex-differentiating characteristic. In preschool and early school years there are few differences but there is an increasing trend for greater dependency in girls with age (Mischel, 1966). Of thirteen observational studies of children six months to eight years of age cited in Maccoby (1966), three favor boys, three favor girls, and seven show no difference. Of eleven rating studies of children ranging from eighteen months to fourteen years (but mostly in nursery school), one favors boys, seven favor girls, and three show no difference. For teenagers and adults the results of five studies on self-report and projective tests all favor females. The only hypothesis which might be made on the basis of the literature is that girls may be expected to be somewhat more dependent than boys.

Social maturity is also an aspect of self-actualization. As measured by Williams, H. M. (1935) by analysis of diary records, social maturity has two aspects: (1) Approach-withdrawal and (2) Ascendance-submission. Richards, R. W. and Simons (1941) factor analyzed the Fels Child Behavior Scales and obtained three factors: (1) Desirability of behavior; (2) Independence; and (3) Introversion-Extroversion. Kim et al. (1968) factor analyzed 42 items comprising the Child Behavior Scale (CBS) and obtained three factors: (1) Academic; (2) Interpersonal; and (3) Emotional. The factor structure was the same for both Negro and Anglo second graders.

Measures of morality were also included in this section. Morality has been discussed on pages 7 and 8. The conclusions were that there are probably no sex differences in morality but that ethnic and age differences can be expected to occur.

As can be seen from the foregoing description, the Self-Actualization category is almost synonymous with maturity and cannot be considered homogeneous. The attitudes or values incorporated into this category are probably the most important to the child's academic and social adjustment.

Aggression (dis)values. This category included aggression toward both peers and adults as well as toward property. Physical and emotional discomfort or harm to others provided the basis for the items.

Aggression is important not only because it affects interpersonal relationships but also because it has been demonstrated to be related to achievement. Roth and Puri (1967), for example, found that achievers among boys were more outwardly aggressive than were nonachievers at all grade levels from three through twelve. This study was one of prosocial aggression. In another study, Barsky (1967) found inferior readers in fifth grade to be more antisocially aggressive and less prosocially aggressive (assertive) than superior readers.

Aggression has met with more attention than almost any other sex-typed behavior. It has become one of the main defining variables in the delineation of masculine and feminine behavior. Sex differences in this characteristic can be detected as early as three years of age. Boys show greater physical aggression and more "negativistic" behavior than girls. Girls are sometimes seen to be more verbally aggressive than boys and are more inclined toward "prosocial" aggression (Mischel, 1966). In a review of 40 studies which included young children, boys were more aggressive (in observed play, by ratings, in experimental studies, or in response to projective tests) in 28 reports and in the remaining 12 the results were nonsignificant (Maccoby, 1966). In three of these studies boys were either more physically aggressive or more aggressive toward peers while girls were more verbally aggressive or aggressive toward adults. Jorgensen (1967) also found that boys perceive themselves and are perceived by teachers and peers as being more aggressive than girls. In a study of third graders, Sember and Eron (1967) found that boys had significantly higher scores on the Peer-Rate Index of Aggression.

With respect to ethnic and social class differences, McKee and Leader (1955) found lower middle-class preschool children more aggressive than upper middle-class children. They also found older children more aggressive than younger ones but did not find sex differences. Gorsuch and Smith (1970) found no sex, race, or socioeconomic class differeaces in the disvalue "Mean to Others." The lower classes more often mentioned the disvalue "Physical Harm" than did the middle-class children.

In their study of Indians and Anglos, Havighurst and Neugarten (1955) found that bad behavior of an aggressive sort was a source of shame to 46 percent of the Anglo boys but to only 14 percent of the Papago boys. However, this kind of behavior is considered the "worst thing that could happen" by 19 percent of the Papago boys and only one percent of the Anglo boys. The difference may be accounted for by the fact that Papagos are only "shamed" by public opinion whereas Anglos have internalized guilt feelings. Thus, the Papago deplores aggressive behavior but probably does not exhibit it for fear of social disapproval. When it comes to "aggression by others" the Southwest Indians are more sensitive than are the Anglos.

Borth (1970) found Negro fifth graders to disvalue aggression and to suppress it. They were high in deference (i.e., the strategy of coping with challenges by doing what is expected by an authority) and deference correlated significantly (-.43) with aggression. It is interesting to note that in this study, aggression correlated positively (.23) with I.Q.

With respect to aggression, it can probably be said that prosocial aggression is positively related to academic achievement and antisocial aggression is negatively related. It may be further concluded that boys are generally higher in antisocial aggression whereas girls are higher in prosocial in some cases. Ethnic differences are difficult to predict.

The items designed to measure these seven categories of value are described on page 46ff.

CHAPTER II

METHODS AND PROCEDURES

Item Development

Criteria

In Chapter I the rationale upon which the dimensions of value were based and the dimensions themselves were described. The next task was to develop items which might measure all possible aspects of these dimensions. The dimensions then became categories within which items were to be assigned such that each item within the category might measure some aspect of the dimension as defined. An attempt was made to balance the number of items within each category such that no category would be over or under-represented in the final test. There were, however, other considerations.

The first consideration had to do with the fact that some categories were more heterogeneous than others, i.e., could be said to have a larger number of subcategories. The most homogeneous category was that which included aesthetic feelings such as enjoyment of sound, smells, nature, and creative expression. At the highest level of heterogenity was the self-actualization category which included learning, responsibility, honesty, independence, conserving, school, enjoyment of complexity, and curiosity.

In addition to the problem of homogeneity-heterogeneity and its attendant problem of adequate representation for each category, there was also the problem of importance. Some of the dimensions are of obvious importance to education while others are not. At the lower end of this continuum would seem to be aesthetics while, once again, self-actualization is of most importance.

Another consideration was the ease with which items could be constructed to measure each dimension. It was found (as might be expected) that the more complex the concept to be portrayed, the more difficult the task of devising a picture which could be understood by children. For example, the esteem category proved extraordinarily difficult to represent, particularly with respect to the concept of competition. Children (especially in first grade) did not understand differentials in prizes or accomplishments in any task. They responded to the activity depicted when shown a race in which they came in either first or third. They liked to run and they didn't care if they won or not. Similarly, when given ribbons, stars, or grades, they did not care whether they got first or second prize nor whether their grade was higher than or the same as their friend's. They did, however, like to have more stars than others and this was a universal feeling which was not associated with personal accomplishment. When it came to depicting stealing it took at least five revisions of the original picture before enough children understood "what was going on" for the item to be acceptable.

One of the major considerations in devising items was the hypothesized extent to which children would vary with respect to their affective response. This problem became most apparent in construction

of aggression items. When flagrant aggression was portrayed, it was universally rejected. Children would not accept tripping or hitting even if the child shown doing the aggressive act was not themselves (i.e., the child with whom they were instructed to identify).

Construction of item stimuli (pictures) also required that all items be equally meaningful to all subjects, that is that they depict activities *or situations which are part of the everyday experience of any child* from any ethnic or socioeconomic group. This requirement placed some constraint on the test constructors who were never quite sure whether or not Indian first grade children might have had experience with such things as indoor plumbing, electricity, games of certain types, etc. It was necessary to consult from time to time with individuals who knew the Papago culture sufficiently well to assure understanding within this group. The same problem applied, of course, to sex and grade level. Pictured activities and situations must be equally meaningful to boys and girls and as meaningful to first grade children as to third.

In summary, the criteria for the development of items at the initial stage were: (1) each dimension category was to be represented according to a weighted judgment made by the project staff with respect to heterogeneity and importance; (2) items were to be of a type depicting concepts at a level of complexity within the comprehension of the first grader; (3) items were to be of such a nature as to obtain variable responses from children; and (4) items were to be meaningful with respect to content to all children regardless of ethnic group, socio-economic status, sex, or age.

Interview

As a first step in obtaining information on the kinds of situations relevant to the seven hypothesized dimensions a structured interview for children was devised. It was felt that if they were asked open-ended questions, children might give some clues as to what situations could be depicted to assess these dimensions.

A total of twenty-three children from a primarily Negro private nursery school (Little Citizens Nursery School) and from the Jewish Congregation of Pacific Palisades Nursery School (including bright four and five-year-olds) were used in the try-out groups.

Each of the interviews was tape-recorded so that data could be accurately noted. Some of the questions were for the purpose of a warm-up and the establishment of rapport between the examiner and the child. Other questions attempted to reveal how children felt about all aspects of the seven hypothesized dimensions. Appendix A contains the Interview Form.

The method used here is analogous to that of Bavelas described on page 14. However, it is more specific in that it does not just ask "What is a good thing to do?" but provides the child with a referent and asks what can he do to achieve an end, e.g., "stay healthy," "keep safe," "learn," etc. In a sense, the child is given a terminal value (stay healthy) and asked to provide instrumental values ("brush my

teeth," "keep clean," "eat my food," "go to the doctor," etc.). Terminal values are built into the model on which the dimensions are based.

As an example, health questions were phrased in the following manner: "What can a person do to stay healthy?"; "What can a person do to take care of his body?"; "Who takes care of people when they are sick?". With respect to fears and safety, children were asked such questions as "What things might hurt you?" and "What things are people afraid of?". To the last two questions, some of the things named were: cars, caves, ghosts, monsters, falling, pins, bees, knives, guns, snakes, lions, and bad people. Certain items were named by a number of children and it was these items that were drawn to represent those situations.

Interview items 33 through 36 were designed to elicit lists of peer characteristics that children considered admirable. This task was a very difficult one for children; they could not describe another child, nor could they say why he was popular or well liked. It is possible that "good" characteristics are abstract concepts and either the child does not have the vocabulary to describe them, or there may not exist a small and finite set of attributes that make a child likeable to his peers. In contrast, item 37, designed to elicit undesirable qualities, received many clear responses. Such characteristics as being a bully, unclean, teasing or annoying were frequently listed.

It is interesting to note that when pictorial items were tried out, children did not correctly identify situations in which they were to consider themselves strong, pretty, or winning something.

Item Design

The original plan was to construct all items to be of a single format in which the child would respond to a picture with an expression of his "liking" for what was depicted. Early in the project it was decided that there might be some merit in attempting to try out a format which required the child to choose between two pictures on the basis of his preference for the concept depicted in one or the other. It was also thought that a stimulus-picture followed by two alternative outcomes for the situation depicted might be useful.

In the first format, termed the "X" form, a stimulus picture was provided. In this picture either the picture-subject (a child identified as "you" by a striped shirt in the case of boys and a striped dress in the case of girls) or the picture (or figure) was shown doing something or involved in a situation. The picture-subject was always the same child and was drawn to be ethnically unidentifiable as possible. The response format consisted of four faces with varying expressions, and appeared beneath the stimulus picture. The most positive end of the continuum presented the picture-subject's face with a broad smile which he was instructed meant "I like it very much." The most negative end presented the picture-subject's face with a frown which meant "I don't like it at all." In between were an indifferent face which meant "I don't care," and a slightly smiling face which meant "I like it a little bit." In pretesting, the child pointed to the face that told how he felt about the picture. These were the "X" items.

In the second format, an "item" consisted of a pair of pictures that varied with respect to one characteristic. Either the picture-subject was doing something different in the two pictures, or he was doing the same thing and the situation was changed. An example of change of activity is an item in which the picture-subject is offering another child a small piece of cake while taking a large one for himself as opposed to offering the other child a large piece of cake and taking a small one for himself. An example of change of situation is an item in which the picture-subject is in the same position playing. In one picture he has one friend; in the other he has three friends. The child's response was to identify the picture he "liked best." This format worked well and was called the "Y" form.

The third format depicted a situation in a large stimulus picture. Below this picture were two pictures showing possible outcomes of that situation. The child was to choose the one he preferred. As an example, in the one stimulus picture the picture-subject (boy in striped shirt) was hiding a friend's lunch pail. In the first alternative, he was giggling about it. In the other he was returning it. Invariably, small children created "stories" from these three pictures regardless of the sequence of the two alternatives. Thus in the example cited, they would say, "He's hidden it . . He thinks it's funny . . Now he's giving it back." A number of these were tried and since all proved unsatisfactory, this format was dropped.

Once the test constructors had settled on the two forms of items to be used, the remainder of the design effort involved devising ways to portray the objects, people, and situations to which the child was to react. The interview tapes provided a number of ideas. Review of other children's tests provided many clues as to the type of items to be avoided. Beyond this, construction of items was entirely a matter of the creativity of project personnel who spent endless hours discussing the best manner in which to portray the concepts already identified as being essential to the dimensions. The ingenuity of the artist also entered into the design phase.

As each idea produced a "picture," this picture was sketched and the artist was left to make his pen drawing. Most pictures went through a number of iterations as described in the following section.

Item Refinement

A very large number of items were constructed, drawn by the artist, tested on the samples of children from day care and nursery school, redrawn, readministered, and either accepted or rejected for further testing. Acceptance was based on consistency of response as well as universality of understanding of the item. The entire process was a continuing one and was necessarily extended into the formal pre-test phase.

An important aspect of item refinement is the continuing alteration of a large number of pictures. This was a particular problem in the "X" set since when the picture-subject had any discernible expression on his

(or her) face, there was a pronounced tendency for the child to select a response-face which matched it. These "face-matches" had to be eliminated.[1] In addition, changes were often required because children responded to extraneous cues. The small and large cake pieces were redrawn because one was too big and the other too small. Food on the plate in the choice between finishing lunch and leaving it unfinished received comments which identified it as a particular food that was liked or disliked (e.g., peas) so it had to be changed to something innocuous but tasteful.

Although no actual count was made of the number of pictures which were redrawn nor the number of times each was changed, it can be estimated that revisions ran into the hundreds. In the beginning, before official pretest, revisions were based on comments made by day care and nursery school children. Revisions continued throughout pretesting (two phases) and up until the test booklets were to be printed.

Item Validity Check

During the initial stages of item development several techniques were employed to determine whether the proposed items indicated that they would be valid for the concept to be assessed. At the same time, the items were being tested for understandability and reliability.

The procedure involved extensive work with a small group of first, second, and third grade children. These subjects were fifteen children attending Little Citizens Nursery School in the afternoon. All but one was Negro. They came from predominantly stable upper-middle-class homes. These children had from three to six sessions with the Project Leader. Additional information on the children was obtained from observations of classroom and playground behavior and from informal discussions with teachers and parents.

The first session was the open-ended interview described on pages 37 and 38. The information obtained from the interview was used in two ways: (1) The children's "suggestions" were accepted by the staff and pictures were drawn to represent these situations; (2) A new validation method was tried out which would test items against the expressed values of children. After pictures were drawn, they were presented to the same children and their responses compared to their initial interview responses. If the child's responses were consistent with his first expression, the item was considered "valid" for that child.

A method of presenting "items" or situations to the children was used before items were drawn. The examiner verbally described situations to the child and asked him to respond by pointing to one of the four faces which were on a page without a stimulus picture (the X format), or to select one of the two described situations (the Y format). The child's responses to the verbal descriptions and, later, to the corresponding pictorial items were compared. When the responses did not

[1] It should be noted that where face-matching might serve to lend social desirability to an obviously undesirable picture, faces were deliberately given expression. This was true in the cases of "stealing" and "littering."

match, it was usually because the picture inadequately portrayed the situation and at that stage was not valid. After making the selection response, the child was asked to describe what was happening in the picture. These descriptions identified defects in the pictorial items and the pictures were re-drawn accordingly. Even with a small sample, if three out of ten children do not understand the concept being depicted, the probability is quite high that the item will continue to be misunderstood by a larger sample. By these processes it was possible to obtain an initial pool of items for administration to a broader and more representative sample of children.

Using this same sample of children at Little Citizens, another validity check was made. This check involved comparing the child's responses to the items with "known" behavior and personality characteristics. The Project Leader spent more than a dozen afternoons at the school. From this exposure it is possible to learn a great deal about a child by observing him and questioning teachers and parents.

Responses to the Values Inventory for Children should be consistent with the child's total personality. The two following examples illustrate consistency in item responding and behavior or background. In the first case, a tall, husky, seven-year-old boy was observed on the playground rounding a corner at good speed in a wagon. He bumped into a girl and sincerely apologized. On the VIC he responded positively to "high in the tree," "tug of war," and "boxing," but negatively to the undesirable aggressive items. The boy was described as an aggressive child by peers and adults. He was one of the children who "helped" the staff design acceptably aggressive items. In the second case, a girl responded very negatively to pictures of adult figures, especially female ones. The teacher explained that her mother had been in hospitals and that the child had been shifted around among rather unwilling or unaccepting relatives.

Since the values of these children were known, when the examiner presented a new item to even a few children, defects in the item immediately became apparent and the items could be revised quickly.

The next major examination of item and test validity occurred during the formal pretest phase. Since the instrument was individually administered and the children were asked to describe each picture, only fourteen children could be tested in one day. During recesses, lunch, and after school, the Project Leader discussed the test and responses with the teachers. The advantage of being concerned with only a few children each day was that rather thorough analyses could be made. Almost all the teachers involved were interested in the test and made suggestions about the various items.

The validity testing procedure that evolved was for the examiner to say to the teacher "This seems like an interesting child; tell me about him." The two would then examine the child's responses and discuss the possible reasons for each reaction. In most cases the teacher was very pleased to note that the child's responses confirmed her own observations. After looking at one child's responses, the teacher usually immediately became enthusiastic and asked to look at the responses of other children. Frequently, other teachers who had taught those children

in previous years joined in these conferences. This assistance given by the teachers had not been anticipated; however, it was invaluable in identifying items that were frequently inconsistent with the children's personality structure. As a result, items continued to undergo revisions.

At this point it became obvious that the instrument was operating as a useful clinical tool. One teacher said "I know he likes to read but really doesn't like school; that is why he responded that way." Another teacher said, "Oh that's why he doesn't do well in large groups; he doesn't like them, but he gave the item response that said he liked being helped and working alone. I'll give him more individual work to do." One child was extremely slow in responding and giving explanations about the pictures. However, each verbal response showed remarkable maturity, understanding, sound reasoning, and definite opinions about issues concerning social values. After school the examiner commented on these characteristics to the teacher and these comments precipitated a half-hour discussion. The child had been labeled mentally retarded on the basis of his very low scores on standardized tests. The teacher noted that he didn't miss anything; he just didn't get many items completed. The teacher thought that he was a perfectionist and held common hopes with his parents that he was not retarded. The examiner felt that the child was very intelligent, and suggested that an untimed test such as the Stanford-Binet would probably show a different picture from that of timed group tests.

Using teachers to check the validity of the test was so successful during pretest that during the final group testing, teachers who were enthusiastic were again asked to look at the responses and to comment. The variation of this method of validating the instrument during group testing is described on pages 68 and 69.

No formal statistical analyses could be made from these observations due to lack of time for complete recording. However, in all cases when tests were analyzed, teachers felt the test responses described each child more than adequately.

Item Reliability Check

The essential purpose of the individual administration of items was to find out whether the child "read" the picture as was intended, which has been termed "understandability," and whether his response was reliable in the sense of being consistent with his true feeling. Most indices of reliability involve some form of test-retest. If an item, when administered twice, does not receive the same response from the subject this is usually due to one of three circumstances. First, the item may not be understood and consequently the response is irrelevant. Second, a child may not understand the method of responding which is required of him. Third, the response to the item may be one that can be influenced by changes in the child.

The use of data from test-retest to estimate reliability makes it impossible to identify or isolate the causes of inconsistency. However, if a test is individually administered and each item response is checked by further questioning, such identification is possible. The type of

reliability sought here is not retest stability over time which, of course, cannot be demonstrated within a single administration. However, since adult attitude and personality tests rarely show high reliability over time, responses by children on affective tests should be expected to display even less stability. Consequently, the kind of affective test reliability of greatest value is one that demonstrates item "clarity" rather than stability. Each item should be clearly understood, should be unambiguous, and each subject's response should reflect his attitude toward the issue depicted at the time of testing.

The following techniques were employed to assess the clarity and understandability of each item on the Values Inventory for Children.

On the X form, subjects are expected to point to a smiling face when they like or approve of the scene in the stimulus picture. A child's response to the X format was considered reliable if he described the scene as intended and indicated liking or disliking which corresponded to the face to which he had pointed.

Obtaining this reliability information on the X booklet occurred in one of two ways. Usually the child indicated his feeling about the scene as he described the picture, e.g., "Oh, ghosts, ugh," and made a face, or "I like to brush my teeth." However if the child described the scene without expression, e.g., "I'm talking to Mother," the examiner asked, "Do you like to do that?" This usually elicited a smile and "yes" or a frown and "no," which was then checked against the face selection response.

For the Y booklet, the child was asked "Why did you pick that picture?" A single comment usually indicated understanding as well as reliability, for example, the item showing the picture-subject (a) with one friend or (b) with several friends elicited such responses as "Because I like to have a lot of friends."

To some children "Why did you do that?" is interpreted as "You did something wrong." In these cases the question posed was "Why is that the best picture?"

If the examiner was not certain that the child had noticed the relevant difference in the two pictures, further questions were asked, such as, "What is different in the two pictures?" When a child misinterpreted the item, his reliability in responding to his interpretation was irrelevant and his response was not counted in the development of item response distributions. Repeated misinterpretations led to further item revisions.

In many respects the reliability check was also a validity check. When a child said, "I love to climb way up high in trees," his item response is probably consistent with his behavior. When a child's responses did not seem consistent with his personality characteristics as assessed by the examiner, a validity check with the teacher was always made. For example, one very dainty and sweet-voiced little girl responded positively to all the aggressive items. The teacher's remark was, "Don't let her looks fool you; that one's a tough character."

Pretest

The three major purposes of pretesting were: (1) to determine the level of understanding of each item; (2) to estimate the variability of response which might be expected in final testing; and (3) to refine instructions. Results of pretesting were used to revise or eliminate items as appropriate. In a few instances, new items had to be created at this late stage when items which had done well in the interview phase failed to perform in pretest.

An initial pool of items was developed with every item prepared for at least one sex. Time limitations did not permit preparation of all items for both sexes.

Pretest was in two phases. In both phases a scoring system was developed and scoring sheets used in administration. Scoring for the X items was on a scale from 1 through 5 with 3 representing "no response." Scoring for Y items was from 1 through 3 with 2 representing "no response." (For final testing the system was changed to 2, 3, and 4 for the Y set.) Misunderstanding resulted in a score of zero.

Pretesting was individual and relied heavily upon questioning by the examiner since the purpose was to ascertain the subjects' understanding of the item in each case. For the X booklet the child was asked to respond to the stimulus picture by pointing to a face. Then he was asked "What's going on in the picture?" and "Where are you?" (for those pictures in which he appeared), etc. For the Y booklet, the child was asked to point to the picture he liked best. Then he was asked "Why did you pick that picture?" or "Why is that the best picture?" Probing continued in doubtful cases, particularly when a child gave a response inconsistent with his interpretation of the picture(s).

The first pretest phase required five weeks and took place in eight schools: (1) Japanese Institute of Sawtelle (a private Japanese language school); (2) Bandini school in Montebello; two schools in Culver City: (3) El Marino and (4) Linwood E. Howe; and four Compton schools: (5) August A. Mayo; (6) Stephen C. Foster; (7) Laurel Street; and (8) Frances Willard. These schools were selected because of their ethnic mix. It was unfortunate that there was no opportunity to pretest Indian children but pressures of time and difficulty in making arrangements precluded their being a part of the pretest sample.

There were 235 children in the first pretest sample. Of these, 44 (20%) were Oriental, 59 (25%) were Negro, 60 (25%) were Anglo and 71 (30%) were Mexican-American. The breakdown with respect to grade was: 122 (51.5%) first-graders; 69 (29%) second-graders; and 44 (19.5%) third-graders. This preponderance of first grade children was by deliberate design since all items had to be understandable at the lowest level for which they were intended. Smaller samples of second and third graders were tested in order to identify possible discrepancies in their mode of interpretation of instructions and/or items. A number of original items which were very successful at higher grade levels did not succeed when administered to first-graders, particularly in the more culturally deprived areas.

The first pretest sample is almost equally divided between males (N=118) and females (N=117). Ethnically, Mexican-Americans predominate while Orientals are in shortest supply. Negroes and Anglos were almost equally represented. It should be noted that the Mexican-American children in this pretest sample are from an area where they are quite acculturated in contrast with the group which was used in final testing. The responses of the Mexican-American pretest children tended to be very middle-class-conforming and they seemed eager to please the test administrator.

Since some items were prepared late in the first pretest phase, a second pretest was performed in two day care centers. Another purpose of the second phase of pretesting was to finalize the training session in which children learned how to respond to the alternative faces presented with each picture they were to evaluate. A new set of training pictures was created for this purpose (see page 53 Development of Instructions). A further purpose of continued pretesting was to see whether or not children could respond to items without prompting. A number of children were allowed to self-administer the test while the examiner watched. Results assured that others could do so without difficulty in final testing.

The total number of children included in this second phase of pretesting was 41 although, as in the first phase, not every child received every item.

Table 1 provides the reader with a list of all items, their descriptors, the code names by which they will be designated throughout the remainder of the text, the category each was designed to measure, the number of children to whom each item was administered, and the percentage of this number understanding the item without help. The differences in numbers derive from a number of factors. First, the staff could not have sufficient access to children to administer all of the more than 80 experimental items to each child. Second, items kept being redrawn and while this was being done they were out of circulation. Third, very early in testing some items appeared to be entirely successful and further administration seemed useless. It can be noted that, averaging both phases of testing (with exceptions which will be explained), 11 of the 60 items received 100 percent understanding. With respect to the remaining items, 35 received between 95 and 99 percent understanding and 10 were in the range of 90 to 94. The items themselves appear in Appendix C.

Exceptions to the rule of averaging both testing phases to derive total N's occur in items 20-X (Knife) which was constantly redrawn until, with the second phase sample (N=41), it achieved 100 percent understanding, and item 12-Y (Easy/complex) which was not drawn until just before the second phase of pretest (N=39).

The four items which fall below 90 percent comprehension deserve some comment. Item 17-X (Stealing) was considered extremely important and for those children who understood it, the responses were revealing and consistent with those to other asocial items. In the first phase of pretest, this item received 91 percent comprehension. In the second it dropped to 80 percent. Item 14-Y (Eat/leave) received 90 percent comprehension in a small sample of ten phase-one pretest children but

Table 1. Item Numbers, Descriptors, Code Names, Categories, and Percent Comprehension

Item No.	Description	Code Name	Category	Percent Comprehending	N
1 X	S painting a picture	Painting	Aesthetics	99.5	141
2 X	S talking to mother on porch	Mother	Love	98	138
3 X	Ghosts coming out of haunted house	Ghosts	Safety	98	259
4 X	S reading in chair	Reading	Self-actualization	99	144
5 X	Girl drops ice cream; other laughs	Drop cone	Aggression	97	166
6 X	S brushes teeth	Brush teeth	Physiological	100	150
7 X	Soldier with gun	Soldier	Aggression	100	150
8 X	S talking to Nurse	Nurse	Physiological	99	154
9 X	S stepping into street; cars coming	Cars	Safety	95	159
10 X	S listening to record	Music	Aesthetics	100	274
11 X	S talking to father on couch	Father	Love	100	106
12 X	Boxing match	Boxing	Aggression	100	129
13 X	S watching friend throw vegetables at fence	Throw	Aggression	99	106
14 X	S smelling flowers	Smelling	Aesthetics	98	141
15 X	S and friend in tug of war	Tug-of-war	Esteem	97.5	157
16 X	S writing at desk at home	Studying	Self-actualization	100	151
17 X	Boy stealing football from store	Stealing	Self-actualization	85.5	165
18 X	S going to take bath	Bath	Physiological	93	113
19 X	S looking at snake	Snake	Safety	95	153
20 X	S praying in church	Church	Love	95.5	151
21 X	S walking holding policeman's hand	Police	Safety	98	153
22 X	S under tree looking at clouds	Nature	Aesthetics	100	141
23 X	S throwing apple core onto litter in park	Littering	Self-actualization	93	157
24 X	Doctor examining S	Doctor	Physiological	100	93

Table 1. (continued)

Item No.	Description	Code Name	Category	Percent Comprehending	N
25 X	S with hose, accidentally waters man behind fence	Water man	Aggression	100	145
26 X	S walking into dark cave	Cave	Safety	97.5	154
27 X	S in class; teacher in front	Classroom	Self-actualization	96.5	166
28 X	Teacher talking to S in class	Teacher	Self-actualization	100	159
29 X	S carving with knife (revised)	Knife	Safety	100	41
30 X	S going toward home	Home	Love	96	150
1 Y (a)	S sitting high in a tree				
(b)	S sitting low in a tree	Tree hi/lo	Safety	98.5	101
2 Y (a)	S puts money in bank				
(b)	S buys candy with money	Save/spend	Self-actualization	94.5	98
3 Y (a)	S plays with one friend				
(b)	S plays with several friends	Play 1/many	Love	98	174
4 Y (a)	Mother ties S's shoe				
(b)	S ties own shoe; Mother watches	Help/self	Self-actualization	98.5	92
5 Y (a)	S and friend sleep in separate beds				
(b)	S and friend sleep in same bed	2 beds/1 bed	Love	99.5	103
6 Y (a)	S ignores friend who is sticking out tongue				
(b)	S sticks tongue out at friend who sticks out his	Ignore/tongue	Aggression	99.5	102
7 Y (a)	S assembles tinker toys with diagram				
(b)	S stacks blocks	Tinker/blocks	Self-actualization	97.5	144
8 Y (a)	Father pats S on head				
(b)	Father picks S up and hugs	Pat/hug-Father	Love	99.5	150
9 Y (a)	Two boys fight; adults watch				
(b)	Two boys fight; adults separate them	Fight/separate	Aggression	98	110
10 Y (a)	Man smoking				
(b)	Man not smoking	Smoke/not	Physiological	99.5	161

Table 1. (continued)

Item No.	Description	Code Name	Category	Percent Comprehending	N
11 Y	(a) S and friend clean dirty classroom (b) S and friend play in dirty classroom	Duty/play	Self-actualization	96.5	147
12 Y	(a) S does easy puzzle, large pieces (b) S does hard puzzle, small pieces	Easy/complex	Self-actualization	95	39
13 Y	(a) S listens to teacher (b) S talks to friend while teacher is talking	Listen/talk	Self-actualization	96	146
14 Y	(a) S finishes lunch; friends leave (b) S leaves lunch unfinished	Eat/leave	Physiological	84.5	96
15 Y	(a) S drops glass, takes blame (b) S drops glass, blames other	Truth/lie	Self-actualization	83.5	160
16 Y	(a) S gets money (b) S gets present	Money/present	Self-actualization	99	83
17 Y	(a) S drinks milk (b) S drinks soda pop	Milk/pop	Physiological	90	95
18 Y	(a) S tosses ring to near stake (b) S tosses ring to far stake	Near/far	Esteem	92	127
19 Y	(a) S gives friend large cake (b) S gives friend small cake	Large/small	Love	87	38
20 Y	(a) S sick; stays in bed (b) S sick; gets up	Bed/up	Physiological	90	156
21 Y	(a) S talks to one friend (b) S talks to several friends	Talk 1/many	Love	95	251
22 Y	(a) S paints; friends admire (b) S paints, friends ignore	Admired/not	Esteem	92	116
23 Y	(a) S pushes friend in swing (b) Friend pushes S in swing	Push/swing	Love	96	56
24 Y	(a) S watches; friend plays (b) S plays; friends watch	Watch/play	Esteem	95.5	93

Table 1. (continued)

Item No.	Description	Code Name	Category	Percent Comprehending	N
25 Y (a)	S swings high				
(b)	S swings low	Swing hi/lo	Safety	97	83
26 Y (a)	S is first in line				
(b)	S is third in line	1st/3rd	Esteem	91	107
27 Y (a)	S listens; other plays teacher				
(b)	S plays teacher; others listen	Student/ teacher	Esteem	97	39
28 Y (a)	S eats cookie; friend has none				
(b)	S gives friend only cookie	Eat/share	Love	98	66
29 Y (a)	Mother hugs S				
(b)	Mother pats S on head	Hug/pat-Mother	Love	96.5	138
30 Y (a)	S and friend sleep in beds				
(b)	S and friend talk in beds	Sleep/talk	Physiological	98.5	146

only 79 percent in the second phase. It was redrawn in such a manner as to (hopefully) overcome its limitations. Item 15-Y (Truth/lie) was retained for the same reason as the stealing item--its importance. It received 87 percent comprehension in the first phase and only 80 percent in the second phase pretest. Item 19-Y (Large/small) comes close to criterion with 87 percent. It, too, was redrawn to overcome its deficiencies.

There is some suggestion that the second phase sample, being drawn from day care centers, had more difficulty with items than did the original sample. Certainly, it was unique with respect to the tendency of these children to respond to items in a manner which would indicate acceptance of (or even enjoyment in) socially undesirable behavior. Thus, while most items improved in comprehension as a result of revision, some may have showed decrements due to characteristics of second-phase examinees.

It can also be noted from Table 1 that the categories, although not equivalently represented by items, are fairly well balanced. The total item count by category is as follows: (1) Physiological, 9; (2) Safety, 8; (3) Love, 12; (4) Esteem, 6; (5) Aesthetics, 4; (6) Self-actualization, 14; (7) Aggression, 7.

As a result of pretesting it was concluded that it is impossible to develop a test at this level which contains items that every child understands. There are some children who simply cannot comprehend everything or are erratic in their interpretations. Although a large proportion (approximately 95 percent) of the children responded correctly to directions for test-taking, there is a remainder of five percent who cannot respond consistently because of inability to follow instructions for the task. Such children may not find "themselves" in the picture because they forget to look or may think they have found themselves when they do not appear in the picture. In view of these problems, it seems that the comprehension level of the final form of the Values Inventory for Children is sufficiently high for practical application.

Final Test Forms

Once pretest had been completed, the 60 items (30 X and 30 Y) which met all the criteria (category representation, importance, adequate level of understanding, and sufficient variability for analysis) were selected for the final test booklets. This was the maximum number considered useable with small children whose attention and composure cannot be maintained for much longer than a half-hour at a time.

Once the final items were selected, it was necessary to decide on the order in which they would be presented. Several criteria were used in making this decision. First, items with similar content were separated by dissimilar items. Next, items which in the pretest tended to get more favorable responses were alternated with those which received more unfavorable responses. Third, where several items required the same type of task (e.g., discrimination, conceptualization) but of different difficulty, the least difficult item of this type was placed first and the most difficult, last. This gave the child a "set" which better enabled him to understand what was required by more difficult items. As an example, one item showed the picture - subject either leading a

group or sitting in the group while someone else led. Originally, some children found it difficult to locate themselves in this item. When this item was preceded by one in which the picture-subject was either first or third in a line, he got the idea of "finding himself" and was better able to do so in the subsequent picture.

The final concern was that no item should in any way affect the response to the next item. Thus, one would not have the picture-subject doing something which might be construed as "bad" followed by an item in which he is talking to his father.

The initial test item in each booklet was a conceptually "simple" one. The last was a "closure" item (e. g., "Going home" for the X booklet and "Going to bed to sleep vs talk" for the Y booklet).

Preceding the test items for each booklet was the training picture (Y) or pictures (X). These pictures were used in introducing the child to the task he had to perform and are described in the following section in connection with the instructions.

Before the original pictures were sent to be printed, careful retouching of all faces was done. For each set of pictures, facial expressions of the picture-subject as well as others in the pictures were matched in the girl and boy forms. In the Y booklet, the facial expressions were also matched in the two pictures occuring on one page. This was done so that no facial clues existed as to which activity might be more enjoyable.

The final tests were prepared by offset process in separate booklets, each 8 1/2 x 5 1/2 inches and stapled together at the side fold. These are easy for children to handle and tend to withstand any kind of treatment. The X booklet contained all the single stimulus face response items. The Y booklet contained all the two-stimulus items. The "Boy" versions had a picture of the boy picture-subject in striped shirt on the cover; the "Girl" versions had a picture of the girl picture-subject in striped dress.

The complete test forms appear in Appendix C. Girl and boy forms appear together for comparison purposes.

Development of Instructions

An essential feature of any test is to make clear to the subjects the exact nature of the task required of them. Tests have often been labeled "culturally unfair" when certain groups of individuals find the task to be performed unfamiliar and/or unclear. Failure to demonstrate a skill, ability or attitude may not be due to an individual's poor skill, low ability, of lack of opinion. This failure to obtain a true measure may be due to lack of understanding as to how to respond to the task rather than to the concept being measured.

The most easily understood task for a child is to select one of two items. He does this on the basis of the one he likes best. Instructions on how to perform this task are almost unneeded. In fact, if a four-year-old child is asked to pick the item he does not like, he is still apt to pick the

one he likes. Evidence of this was shown in a study by Raymer (1969) with 164 four-year-old children. In a picture test of 96 pages, eight sets of pictures were presented twice. On one occasion the child was asked to pick the "good one," in the other, to pick the "bad one." Most children selected the same picture, regardless of instructions.

The two-picture format, in which the child selects the picture he likes best, was used for half the items (the Y booklet) in the Values Inventory for Children. During the individual pretesting, no child misunderstood the task. However, in the group testing, a few children with poor verbal ability, and only one month's schooling did not understand the task.

The final instructions for the Y booklet include one sample item. The examiner first describes the common aspect of the two pictures, then points out the features that differ, and finally asks the child to select the one he likes best. This is the task the child performs himself for each item.

The X booklet contains one stimulus picture to which the child responds on a graded scale of like-dislike. Personality or attitude types of inventories for adults frequently describe a situation and require the subject to respond to the stimulus on a graded scale. The extreme positions contain labels such as: like-dislike, good-bad, true-untrue, admire-do not admire, approve-disapprove, etc. Young children can also respond to a single stimulus on variously labeled graded scales; however, the dimension most clearly understood is like-dislike.

The simplest scale would contain only the two choices: like and dislike. Four to six-year-old children can operate most reliably under these conditions. Since the Values Inventory is to be used for children up to at least nine years of age, an expanded scale would allow more mature children the finer distinctions which they are capable of making. Consequently, four faces described on a like-dislike continuum were used: faces with a big smile, little smile, straight mouth, and frown.

During pretesting many variations of initial training instructions were used. With individual testing it was easy to determine if the child understood the face-response task. The children led the examiners to revise and improve those instructions. Several children asked: "What does that face mean?" or, "I sort of don't like it; what face do I point to?" Such questions indicated that the instructions were too brief, additional training was needed, and the examiner needed a method for assessing whether the child could correctly identify each face. A few children asked: "What is it I am supposed to like?" One statement was changed from: "When you like something," to "When you like what you are doing, or what is happening."

During pretesting, page one of the X booklet contained the four faces, each a different color, and the descriptions of what the faces represented were all verbal. Page two contained the four faces without color and was used to determine whether the child understood what each face represented. He was asked to point to each face as it was described, i. e.: "Point to the face that says, 'I like it a lot,'" etc.

For the training sequence in the final X booklet instructions, a set of pictures was drawn to represent four situations in each one of which a different face was the appropriate response. For the two extreme pictures, the activities selected were "eating ice cream," which everyone probably likes, and "falling down," which everyone probably dislikes. Two other pictures were paired with the more neutral faces. The color coding of the faces could then be dropped and a box placed around the appropriate face for identification purposes. The first page (i) had only the four faces, and was used to allow subjects to start by examining the response format without the added dimension of a stimulus picture.

For pages ii to v, children are told to circle each face in the box as the examiner is saying: "That face says, 'I like it very much'," etc. It was hoped that this amount of training would be adequate for learning what each face represented. The four pages were then repeated without the box around the appropriate face, and subjects were asked to: "Circle the face that tells how you feel." This second sequence was originally designed as a reliability check to determine whether children were following instructions. Older or more mature children could easily remember what face went with each of the pictures. However, some children who obviously understood the faces, reconsidered their feelings about the instruction items and gave different responses (e.g., a slight smile to ice cream). A second problem arose stemming from the fact that some first-grade children had not fully learned the face response and could not remember the response assigned to each training picture. In such cases it was difficult to determine whether failure to follow instructions was due to lack of memory, changes of "heart" about stimulus pictures, or lack of understanding of the meaning of faces. The instructions for the last four training pages (vi through ix) were subsequently changed from "Circle the face that tells how you feel" to "Circle the face that says . . . (I like it very much, etc.)." This was actually a more important reliability check than that of "remembering" what face had been circled previously. It was easy for the examiners to find the children who did not yet know what the faces represented and to help those children individually.

On the first day of group testing, another feature was added to the instructions. One examiner drew the four faces on the chalkboard and circled the two extreme faces as they were described. Children then performed the same task in their booklets. The purpose of stressing the two extreme faces is to provide at least a two-point scale for those children who can just barely understand the task.

One other addition to the instructions was made when testing the Papago children. By requiring from each child a verbal response to the question: "What does this face say?" the examiners were better assured that the children could "read" the faces. Consequently, after page v was completed, the examiner asked the children to look at the faces on the board. While pointing to the appropriate face, the questions asked were: "What does the very happy face say? What does the sad, unhappy face say? What does this face say? What does this face say?" If all the children did not reply (in unison) at any time, the question was repeated. The joint classroom responses were given with enthusiasm and fewer individual prompts were needed. This class response feature has now been included in the final directions for administering the test.

Juanita school in Oxnard contained many students who spoke only Spanish, or very little English. There were also a few children who spoke only English. Consequently, a version of the instructions was devised alternating English and Spanish statements. When possible, statements were shortened to reduce the overall length of the instructions.

Appendix B contains the final forms of the instructions for the X and Y booklets in both the English and English/Spanish versions. References to training pages relate to the booklets themselves, which are contained in Appendix C.

Sample Selection

Ethnic Groups

One of the major justifications for this project was based on the concern of society with respect to the relationship between culture (or ethnicity) and values related to educational objectives. On the one hand, some ethnic groups consider the inculcation of what they term "white middle-class values" an imposition upon their own cultural values. On the other hand, educators seem determined to instill the "Puritan ethic" into children. It is not the purpose of this project to make judgments in the area of public policy. It is, however, an objective of this project to identify ethnic differences with respect to values.

The research literature suggests that there are, indeed, ethnic differences in value systems which may or may not be based on socioeconomic factors. It is also relatively evident that children who become acculturated in the sense that they adopt the values of the predominant (white) middle-class culture also adapt to and progress further in school. Clearly, this is at least partially a function of the success of the predominant culture in inculcating these values during the training of teachers and the success of teachers in passing them on, in turn, to students.

The problems begin at the point where values conflict. The child who comes from a culture or family whose values are in conflict with those of the predominant culture (and, therefore, the schools) and who succeeds in adopting the new values will find himself in conflict with his family or subculture. The child who adheres to the conflicting values held by his family and/or subculture finds himself unable to adjust adequately to school and thereby suffers academically. In either case, it is the child who loses.

Given the objective of identifying ethnic differences in values which might be expected to relate to academic success and school adjustment, as well as to the health and well-being of the child, it was considered desirable to select the five major ethnic groups for study. This selection was based on several factors. First, three of the groups chosen were those about which there is the most social and educational concern: Negroes, Mexican-Americans and Indians. Second, groups were chosen to represent the predominant culture (Anglos) and the most acculturated ethnic class (Orientals). Of these five groups, the only one not represented adequately in the Southern California schools was the Indian. Even had they been available in the local population, it would have defeated

the purposes of the study to evaluate an ethnic group which is, under ordinary circumstances, geographically isolated from the predominant culture. The Mexican-American sample chosen was also selected for its lack of integration in order to examine cultural differences under optimal circumstances. Negroes are more integrated with the white culture but were selected on the basis of residence in a predominantly Negro area. When it came to Orientals, the greatest concentration in the Los Angeles area was in the Alhambra school district where they were interspersed with Anglos and children from a number of other ethnic backgrounds (e.g., Middle-European, German, French, Hawaiian) and many of mixed parentage. The sample of Anglos was also obtained from these same schools. Descriptions of the school districts appear in the following section.

It should be made very clear at the outset that these samples of children are in no way assumed to be representative of the ethnic groups with which they are identified. It would be impossible within the scope of this developmental project to randomly select representative school districts or children within them and to obtain sufficiently large samples for analysis. At the same time, it would seem that the samples are appropriate with respect to the extent to which they are integrated into the larger culture, ranging from the Indians who are confined to the reservation, through the Mexican-Americans who live in a 98 percent Mexican-American populated barrio, the Negros who live in a large mixed city but in a predominantly Negro area, to the Orientals and Anglos who live in a very integrated community.

Table 2 depicts the breakdown of children tested by school district, ethnic group, sex, and grade level. Children "eliminated" were rejected for the major analyses because they were unclassifiable as to ethnic group, their test responses were unreliable, or they did not belong to the major ethnic category of that school. Table 3 provides frequency counts of children eliminated from major analyses for these reasons. Table 4 provides the breakdown for the final sample used in the major analyses. The final total sample consisted of 996 children. Of these, 167 (17%) were Mexican-American; 250 (26%) were Oriental; 195 (19%) were Anglo; 216 (21%) were Negro; and 168 (17%) were Indian. Despite efforts to keep racial balance (i.e., 20 percent in each category), there is a preponderance of Orientals and a slight shortage of Mexican-Americans and Indians. It is not expected that this will have much, if any, effect on the analyses.

Description of the School Districts

The final testing phase took place in what has been loosely termed four school districts. The four areas were not in all cases full districts, nor were they completely representative of the entire district.

In the Oxnard school district, Juanita school is one of three schools in a Mexican-American barrio, called the Colonia area, which contains a high proportion of itinerate farm workers. For this reason there is a large turnover of children every year, estimated to be as high as 50 percent. This lack of stability certainly influences the child's learning processes.

Table 2. Breakdown of Children Tested by School District, Ethnic Group, Sex, and Grade

School District	Ethnic Group	Boys 1	Boys 2	Boys 3	Girls 1	Girls 2	Girls 3	Totals
Oxnard	Mexican-American *	31	33	26	21	26	30	167
	Oriental	0	0	0	0	0	0	0
	Anglo	0	2	3	3	1	2	11
	Negro	2	8	3	8	4	4	29
	Indian	0	0	0	0	0	0	0
	Eliminated	3	1	0	4	0	0	8
Alhambra	Mexican-American	21	22	18	20	19	15	115
	Oriental *	38	45	34	35	56	42	250
	Anglo *	33	24	33	36	25	44	195
	Negro	0	1	0	0	0	1	2
	Indian	0	0	1	0	0	0	1
	Eliminated							0
Compton	Mexican-American	14	9	16	11	9	14	73
	Oriental	0	0	0	0	0	0	0
	Anglo	8	6	10	5	6	13	48
	Negro *	34	39	47	31	26	39	216
	Indian	0	0	1	0	1	0	2
	Eliminated	0	0	0	1	1	2	4
Papago Reservation	Mexican-American	0	0	0	0	0	0	0
	Oriental	0	0	0	0	0	0	0
	Anglo	2	3	3	1	2	2	13
	Negro	0	0	0	0	0	0	0
	Indian *	20	36	23	20	31	38	168
	Eliminated	2						2
	Subtotals	208	229	218	196	207	246	1304

* Major ethnic category

Table 3. Children Eliminated From Tested Sample by Ethnic Group, Sex, and Grade

Unreliable

	Boys			Girls			Subtotals
	1	2	3	1	2	3	
Mexican - American	2	1	0	3	0	0	6
Oriental	0	0	0	0	0	0	0
Anglo	1	0	0	1	0	0	2
Negro	0	0	0	1	1	2	4
Indian	2	0	0	0	0	0	2
Subtotals	5	1	0	5	1	2	

Total Unreliable	14
Unclassifiable Race	16
Total Eliminated	30

Table 4. Final Sample Used in Analyses
(N = 996)

Grade	Sex	Ethnic Group: Mex-Amer.	Oriental	Anglo	Negro	Indian	Subtotals: Boys	Girls	Grades
1	Boys	31	38	33	34	20	156		(1)
	Girls	21	35	36	31	20		143	299
2	Boys	33	45	24	39	36	177		(2)
	Girls	26	56	25	26	31		164	341
3	Boys	26	34	33	47	23	163		(3)
	Girls	30	42	44	39	38		193	356
Totals		167	250	195	216	168	496	500	996

The general economic level is very low (poverty level) with a median income of $1900/year. Many children have had little exposure to English before attending school. To offset the learning problems inherent in this population, Juanita school has a dynamic program with well-qualified teachers (usually Anglo), and a teacher-aide assigned to each class. The teacher-aide is bilingual and gives special attention to children who speak only Spanish. Many special facilities are available, such as a learning center, audio-visual aids, a library, a full time nurse and school psychologist, and a school lunch and nutrition program.

The children are, for the most part, clean, happy, and quite healthy. In this school there was found a greater variance in behavior from first through third grade than in any other school. The behavior and verbal ability of third grade children seemed close to that of other schools. However, the first and second grade children were barely beginning to learn how to listen, think, respond, and be receptive to learning activities. Data gathered on the Values Inventory for Children from the first grade were certainly less reliable and showed greater variability than those from any other first grade class.

The Alhambra City School District contains 13 elementary schools from areas that might be labeled lower-middle-class to upper-middle-class. The predominant ethnic groups are Anglo, Mexican-American, and Oriental. The first two schools selected for this study have approximately a 50 percent Oriental population. Each of the three schools participating is in a stable, fairly high socioeconomic area, with most parents engaged in professional or business occupations.

School facilities are new and excellent and many innovative teaching techniques are being used. The teachers are well-qualified and represent varied ethnic and cultural backgrounds. In the first grade, stress is put on the skills of listening and following directions. Most teachers have developed techniques for gaining and maintaining control over their classes. Consequently, even the first grade children were able to listen to and follow directions in the testing situation. Problem children were easy to identify in the relatively quiet rooms and assistance was easily given where needed.

The Compton City School District has 20 elementary schools. The three selected are probably representative of the district. The school system is an old, well-established one and, with fairly limited funds, provides many specialists and has several innovative programs. A large number of the school buildings are old and all are painted a slightly bilious green. One Principal commented that probably years ago the school system found a great bargain on a million gallons of green paint.

The district was once primarily Anglo but now contains a population of over 50 percent Negroes. Mexican-Americans have recently moved into the area and comprise 20 to 25 percent of the residents. The other 25 percent is Anglo. Although the area might be given a low socioeconomic rating, there is considerable variability there. Many children do not have fathers in the home. Some come to school unwashed and unfed but most are clean, adequately fed, cheerful, and show some interest in learning.

The ethnic distribution of the teachers is similar to that of the children. Many teachers are excellent and young teachers bring new techniques to the schools. One special teacher gives lessons to children who speak only Spanish, and older bilingual students help with these children in the lower grades.

Classes tested varied in their collective ability to listen and to respond as requested. A few disruptive children in a room makes any task difficult for them as well as for others. Many individual prompts and careful monitoring were necessary.

In Arizona, on the large (65 square-mile) Papago Reservation, there is no single school system. All children from age five or six are boarded at or bussed to school. Elementary schools, from pre-school to eighth grade, belong to one of three categories: Mission, B.I.A., and publ

There is only one Mission school left on the reservation. The San Jose Indian Mission in Pisinemo contains the largest buildings in a small town which is 12 miles off a major road. There are about 20 to 25 houses and a general store in the town. Children are bussed to school from 15 to 20 miles away. There are a total of 69 children in grades one through eight. Mission educators are usually dedicated, and the children receive a great deal of personal attention from the Sisters. Sister Viola, with a class of 20 first and second grade children, was extremely interested in the Values Inventory for Children and helpful in all respects.

Living conditions are simple, supplies are limited, the playground is dusty, but there is warmth and a spirit of learning. The food served at the Mission is good with fresh milk, meat, salad, fruit, and bread baked daily.

The Bureau of Indian Affairs operates four schools on the reservation. Santa Rosa, a boarding and day school, is the largest and has at least two full classes of each grade. There is only a small town near the school, but the school itself is large and modern and looks like a new school in any Southwestern city.

Located in the largest town on the Reservation is Baboquivari Elementary School in Sells. Like Santa Rosa, the school in Sells is large and has equally modern buildings and equipment. It is one of the two public schools on the reservation and under the Pima County public school system.

Most of the students on the Reservation are Papago children. However, a few Anglo children are found in the large schools. The teachers are predominantly Anglo with several Papago and a few Negro teachers. Teacher-aides in the large schools are usually Papago. Some are studying to be qualified teachers. The language of instruction is English at which children become adept after a few year's schooling. One Anglo teacher commented that these were the happiest children she had ever taught. In the early grades, stress on learning good school behavior does not seem necessary, although older children loiter and gossip in the halls in the same style found in any junior high school.

The Papago Indians are called "The Desert People" and their land is certainly a dry one. Water is a problem. There are no rivers, nor is there an underground water table. Consequently, water is drawn from wells by use of electrical pumps. For household use, individual families lay their own pipe lines to the wells. With a limited water supply there are only modest gardens, and little farming. The major occupation is cattle raising. Horses are owned by many and some handicrafts are popular. In the clear, smog-free air, the pace of living is not hurried and living conditions are simple. The young people are active, wear the most up-to-date clothes, and there is frequent contact with nearby cities.

Sex and Grade Level

With respect to sex, a number of differences have been both hypothesized and found between boys and girls when it comes to affective dimensions. For the purposes of this project it was desired that the sexes be equally represented within each grade level and ethnic group. Since the population is generally so divided, it was assumed the samples tested would also contain equal percentages of boys and girls. As can be seen from Table 4, the total sample contained 496 boys and 500 girls. The departure from the originally proposed 50-50 split is insignificantly in favor of girls.

The three grade levels chosen were selected because the purpose of the project was to develop an objective, self-administering test applicable to children at the lowest level of elementary school, while attempting to evaluate changes in values with increasing age. It was anticipated that the total sample would contain 300 children in each of these three grades. As Table 4 indicates, there were 299 first grade children, 341 second grade children, and 356 third grade children. The slightly lower figure for first-graders is attributable to the fact that first grade classes are purposely made smaller to allow for more individual attention to each child.

Final Testing

Test Scheduling Method and Procedure

The class administration of the Values Inventory for Children was completed in a total of 18 days of actual testing in 1970. The three school districts in California that participated were Oxnard, Alhambra, and Compton. In Arizona, children in three schools on the Papago Indian Reservation were administered the instrument.

The testing schedule which follows provides a list of all schools participating, dates of testing, number of classes, and ethnic distribution.

Testing Schedule

School	Total No. of Classes	Major Ethnic Group*	Dates
Juanita School Oxnard	9	M	Sept. 22, 23, 24, 25
Brightwood Alhambra	9	A, O	Oct. 13, 14, 15
Monterey Highlands Alhambra	9	A, O	Oct. 20, 21, 22
Frances Willard Compton	3	N	Oct. 27
Augusta A. Mayo Compton	6	N	Oct. 28, Nov. 16
Stephen C. Foster Compton	3	N	Oct. 29
San Jose Indian Mission Pisinemo, Arizona	3	I	Nov. 3
Santa Rosa Boarding and Day School, Santa Rosa Star Route, Arizona	3	I	Nov. 4
Baboquivari Elementary School Sells, Arizona	3	I	Nov. 5
Repetto Alhambra	3	A, O	Nov. 13

*M = Mexican-American; A = Anglo; N = Negro; O - Oriental; I - Indian

Maintaining consistency in personnel administering the instrument was achieved by the presence at each testing session of the Project Leader, Mrs. Willa Gupta. One of three other trained test administrators was also present at each testing. Mrs. Lisbeth Goldberg, who is proficient in Spanish, read the instructions in Spanish and English during the four days of testing at Juanita school. Miss Elaine Lopez, a Papago student at Arizona University and presently working with the Papago Head Start Agency, assisted with all testing on the Reservation. Mrs. Juanita Bryson assisted at each testing session in Alhambra and Compton.

In each classroom, in addition to the two trained administrators, school personnel present were genuinely interested in the test and offered to help. In all cases the teacher was present and aided in passing out

booklets and in monitoring the class. Most classrooms had other assistants and, without prompting, they made themselves useful in helping with the details of administration. Teacher-aides were part of the school program at Juanita, Santa Rosa, and Sells. Brightwood and Willard had a number of practice teachers. Older children (from fourth to sixth grade) assisted in the first and second grades at both Monterey Highlands and Mayo. Some of these older children were bilingual and helped younger ones who spoke only Spanish.

The methods used in scheduling schools and classes varied considerably. Initial contact with each school district was made in the spring of 1970 before summer vacation. For each of three districts, only one individual personally arranged our contact with their schools. They were: Mr. Kent Paterson, School Psychologist at Juanita school; Dr. Bruce Peppin, Director of Pupil Personnel, in Alhambra; and Mr. Josiah Moore, Tribal Education Coordinator, in Sells, Arizona. Several administrators in Compton were contacted in order to finalize plans there. For the pretest session, Mrs. Eleanor Dyer, Pupil Personnel, arranged the schedule in Compton. During the summer the Compton school district underwent a unification procedure and, consequently, several other channels were followed for the fall testing. Since each of the Principals was very cooperative and willing to provide classes for fall testing, the project was accepted by the Superintendent.

Letters sent to each school briefly explained the project and time required for testing. The Project Leader contacted each Principal personally to finalize the schedule for that school. Since most school personnel are already overloaded with various activities and complex schedules, an attempt was made to fit the testing sessions into the regular class schedule as smoothly as possible. The lower grades have a class break, recess, or lunch every hour. Many schools have a semi-split session, with half of the children arriving early for the reading lesson, and the other half staying late for their reading lesson. This leaves two class periods available in the morning.

Since the administration of the X booklet with a first grade class takes 30 minutes or more, it was difficult to test more than three classes in one day. The entire shorter session would be occupied by the administration of the X booklet to the first grade. During the longer morning session there was time to administer the X booklet in both the second and the third grade classrooms. The Y booklets were to be administered in the afternoon, either before or after a break, again to avoid destroying the teaching lesson for that period.

The original plan was to test only one-half of each first grade class at one time since these children are not adept at handling pencils, turning pages, and following instructions. This method was used only on the first day of testing because it was found to be less convenient than administering the test to an entire first grade. First, each section of the class took as long as the whole class together and it was inconvenient to the school to find a location for the rest of the class for those two 40-minute sessions. Second, the teacher and aide offered to help and were both available only if the entire class was in one group. For a

test to be of practical use to a school system, all children in a class should be able to take the test simultaneously. Since this was found feasible with the Values Inventory for Children, its eventual use in schools should be feasible.

For the purposes of data analysis, intact ethnic groups are desirable. However, all the school systems available have a mixed ethnic population. It did not seem practical nor "polite" to exclude certain members of any class during testing. Consequently, all children in the classes selected were administered the instrument.

In the beginning of a testing day, before classes started, each teacher was personally contacted to verify the time schedule with her class. The schedules were very flexible and minor changes in timing were made with almost all classes. Some of the reasons for these adjustments were: (1) one group returned later than expected from a field trip; (2) one morning bus was late; (3) the milk didn't arrive on time for nutrition; (4) the salute to the flag and a morning song took eight minutes; (5) a rehearsal was scheduled that the teacher had forgotten; or (6) a special time request was made by a teacher. Many teachers were very flexible in their schedules and said "Come in any time you are ready."

A unique scheduling problem occurred at Repetto where the younger children are in ungraded classes. With team teaching, the groups are constantly shifting during the day. For this project the three teachers involved agreed to keep each of their homeroom groups intact for two one-hour periods. The test administrators spent two strenuous hours going from one group to the next with each testing session overlapping the last. Coding the ethnic category was also a feat in this multiracial school.

Certain clerical work was necessary in order to have each booklet identified with the child's name, class, grade, race, and birthdate. Two basic methods were used. At first, a list of names and birthdates by class was obtained from each school prior to the day of testing. These were written on the booklets to save class time. The sex of the child was not always obvious by looking at the name, which occasionally posed a problem, e.g., "Jesus" who turned out to be a girl, was given a boy's booklet. This was quickly remedied. Some schools did not have a convenient list of birthdates and these had to be obtained from various records or child cards.

On the Papago Reservation it was not possible to obtain advance lists so a second, and probably superior, system was devised. The child was instructed to write his name on his booklet. The teacher assisted if the child had trouble. After testing, the administrators alphabetized the booklets and copied down birthdates from office files. When a name could not be deciphered, or the child was so new that he hadn't been completely registered, the teacher was always willing to spend a few seconds and help in the matter.

One major aspect of the testing schedule was that of public relations. The purpose of the project was discussed with the Principal and with the

teachers involved as well as with other interested teachers and staff. Since the final feedback on the project would only reach the schools at a much later date, teachers usually asked if they could look at some of their children's responses to the items. The process of going over booklets with the teachers allowed the test administrators to make informal validity checks on the child's responses.

Administration of Test

As the examiners made their first entrance into a classroom for administration of the X booklet, invariably the teacher called the class to order and directed the children to clear their desks and take out their pencils. Sometimes the teacher introduced the examiners by name. Some classes had been asked to put their name tags on their desks as is their custom when a substitute teacher takes over a class.

One of the examiners said "We have a picture book for you, and as soon as everyone has his booklet we will tell you what to do."

The first procedure was to distribute booklets. When the names had been written on the booklets in advance, one examiner took the boys' booklets and the other distributed the girls' booklets. With names on the desks this was very quickly done. The ethnic category was coded by examination of each child as the booklets were handed out. Where ethnic group membership was not easily identifiable, checks were made with school personnel and records.

A more efficient method of identifying the booklets was to direct each child to print his name on his booklet. This was no problem for second and third grade children. However, some first grade children needed assistance. This method was very successful for several reasons: (1) The children were proud of having the opportunity to show their skill in writing their names; (2) The child's time was usefully occupied while the booklets were being handed out; (3) The examiners had an opportunity to establish rapport with the class by saying: "The children in this class can certainly write their names nicely."; (4) No booklets were wasted due to absent children, and new children received their booklets immediately, instead of being the last ones who needed a booklet "made" for them; and (5) No sex mix-ups could occur.

During preliminary planning with Juanita school, it was recommended that books be put as dividers between children; otherwise children had a strong tendency to come to joint conclusions in their answers. An alternative was to spread children out when there were extra tables or separate desks. If such separation was necessary, it was quickly discovered and, after the training pages were complete, dividers were put up.

As this initial setting-up, which took about five minutes, was being completed, Mrs. Gupta drew the four faces on the chalk board. This called the children's attention to the beginning of the test.

Appendix B contains the complete training and test instructions in English, as well as the Spanish-English combined version which was used only at Juanita school.

Since the English instructions were memorized, Mrs. Gupta, the second administrator, the teacher, and any other assistant, watched the children to see if they were on the correct page and moved around the class aiding in page-turning and giving individual prompts where necessary. The classroom teacher always pointed out children who did not speak English. In Los Angeles, Mrs. Bryson, or an older bilingual child prompted in Spanish. On the Reservation, Miss Lopez prompted in Papago in the few cases where it was necessary.

It would be useful to have a statistical reliability check on each child after the training sequence to determine whether the face the child circled did represent his feeling toward that stimulus picture. For older children, pages vi to ix can serve that purpose. However, for younger or more immature children, those pages were needed as part of the training sequence.

If a child marked a wrong face, some of the initial training instructions were individually repeated to him, and a correct response elicited from him. The repeated instructions were: (examiner pointing appropriately) "This face says, I like it very much; this face says I don't like it. What does this face say? What does this face say? You don't like to fall down. What face says, 'I don't like it'? Circle that face. That's right. That face says, I don't like it." Usually this much individual attention was adequate for the child to understand the task.

Some children had trouble "getting started" making their own decisions. The prompt used in this case was: "Look at the big picture. See what you are doing or what is happening. Do you like it or don't you like it?" (wait for the child to nod or shake his head) "Oh, you don't like it. Which face says 'I don't like it?' Yes. Circle that face. Now you have said: 'I don't like it.' Go on to the next page."

Clarity of test instructions was evident as the teachers and assistants quickly picked up the idea of the test procedure and used the same or almost identical prompts that the trained administrators were using. Occasionally a teacher would tell a child "too much" as she tried to help him, at which time one examiner would politely whisper to the teacher: "Don't give any clues about the picture itself." Even the fourth-grade assistants understood this as they helped those who were slow in understanding the task.

Pantomime instructions worked very well with a bright girl who spoke only Japanese. She started slowly and looked puzzled, then obviously "caught on." She would look at a picture, smile and nod, then look at the four faces and circle the happy one, or when she frowned and shook her head at the stimulus picture, she would circle the frowning face.

Probably the best measure of test reliability is the informal one used at all testing sessions. Each child was watched for a few seconds or even minutes to determine if he understood the task. If no evidence was shown, the above-mentioned prompts were given to him and some response--verbal or by a gesture--was required.

The following are the most common responses noted that indicated understanding: (1) The child would mumble his feelings aloud while circling the appropriate face, e.g., "I don't like ghosts," or "I like boxing."; (2) The child would smile or frown or shrug his shoulders when looking at a picture and then find the face that matched the one he had made; and (3) Eye and head movements were a useful clue. The child's eyes would roam over the stimulus picture, then to the faces, back to the top picture, and finally he would circle a face.

The other method used in checking reliability was to ask the child: "What is happening?" This was used most extensively with the Papago children, due to the fact that no Indian children had been pretested. The Indian children seemed as adept at handling the task and identifying the pictures as the children tested in Los Angeles.

To avoid obtaining unanswered items, as the children completed their booklets they were asked to go back and turn all the pages to see if they had missed any. Of course there are always a few children who miss pages. The examiners also tried to flip through the booklets as they were collected.

The administration of the Y booklet was actually a joy. The children knew the general procedure and were ready to start in a minute's time. When one boy received his Y booklet he was overheard saying: "I know what to do with this one; you pick the picture you like best." In ten seconds he had carefully marked three or four pages before the examiner could reach him and ask him to wait until the rest of the class started.

Instructions for the Y booklet could be as simple as: "Mark the picture you like best." However, to aid children who may be slow to understand the task, the full instructions (Appendix B) were used.

The prompting needed was also simple: "Look at the two pictures," and "Look carefully at the two pictures, sometimes it is hard to find the difference."

Evidence of reliable responses to items in the Y booklet was essentially that of noting whether the child carefully examined both pictures. Eye and head movements and facial expressions could easily be observed. With group testing it was impossible to determine whether each child understood every item. However, spot checking was done using the pretest question: "Why is that the best picture?" Most answers indicated understanding of the items.

If a child had a question he was instructed to raise his hand. Sometimes a child said "I can't see the difference." The item that differed was named, but no further clue given: e.g., "Look at the plates you are holding." (item Y-19), "Look at the posts." (item Y-18), "Look at your hands." (item Y-15).

The test designers had become so familiar with the child in the striped shirt or dress that the number of repetitions of this feature may not have been adequate early in testing. One teacher commented that

this information should be stressed. The statement: "You are the one in the striped shirt or dress." was subsequently repeated several times while the children were completing their booklets.

Monitoring of each class varied depending on several features: (1) Class behavior, age, and maturity; (2) The position and kind of desks or tables which dictated whether examiners could talk to the entire class or only to small groups; and (3) The noise level from both external sources (traffic or a loud air-conditioner) and internal (children's voices or just poor acoustics) which affected the methods of communication. If it was apparent that all the children could not hear with the examiner standing still, she moved around and sometimes repeated a phrase, turning first to one side of the class and then to the other.

Most teachers currently make use of positive reinforcement techniques to establish class control. The examiner picked up those techniques and would say: "This table is quiet and ready to listen." instead of "Will those three boys over there be quiet!" Frequently the use of the local vernacular, as: "OK, cool it." is more effective than academic verbiage.

Differences between grade levels are notable from first through third grades. With older children their longer attention span and greater verbal ability allows any training or testing session to proceed more smoothly than it can with younger children.

Post-Mortem

Good evidence of item reliability and validity was obtained during individual pretesting. It was also desirable to have some indication of these factors when the Values Inventory was group-administered in final testing.

First, it was essential to make sure that each child understood the tasks, the most difficult of which was to respond to one of four faces on the X booklet. With most second and third grade children, the instructions read to the group were adequate. However, with first grade children it was apparent that many needed individual attention. It was essentially due to the agility of the examiners, who knew the instrument so well they could quickly note children having difficulty, that help was given where needed. It is doubtful that any group test in a first grade class could be valid or reliable without individual attention.

During the administration of the test, the examiners did as much spot-checking as possible, posing the same questions as used in pretesting. Answers seemed comparable with those obtained during pretest.

The most interesting checking on the booklets was done during free time with the teachers. A modified version of the teacher validation technique was used. Each teacher was asked "Would you like to look at the booklets?" Most teachers spent at least a half hour with the examiners studying the responses.

Teacher enthusiasm was even greater in final testing than in pretesting since the teachers were present while the test was given and felt more involved in the project. Teachers were delighted to see how well the test portrayed each of their children's feelings and attitudes. It was the diagnostic aspect of the instrument in which they were interested. Typical comments were: "Let's see Johnny's. I'll bet he liked all the aggressive items." (he did); "Billy hates school, reading and studying, and he did give negative responses to those items"; "Susie is the perfect 'good girl' and see how proper her responses are?"

Rarely did a teacher find that a child's responses did not fit her estimate of that child. When this did occur it was usually that the child was new or was too young or immature to have developed opinions on many issues. One girl, a new student who was socially withdrawn and had no friends, responded positively to the aggressive items and negatively to school and studying. Her teacher, who now had great faith in the Values Inventory for Children, said "Oh, dear, that means as soon as she feels comfortable in this school she is going to be a problem."

These informal analyses of responses to the Values Inventory for Children gave many teachers new ideas on how to handle some of their problem children. One example is the following. Two second grade boys composed such a trouble-making team that they had recently been assigned to different classrooms. The two teachers asked to compare the booklets to see if they could gain some insight into the boys' behavior. Contrary to the teachers' initial guess, the leader was not the one they had suspected. One boy (probably the real leader) responded positively to all the aggressive and leadership items, and chose "many friends." The other boy gave the opposite responses to these items. The teachers carefully considered this matter and noted that it was true the second boy had no other friends and that he did seem to know what he should do, although he did not do it. The teacher of this second boy subtly started to encourage contacts between him and other students. She reported success, feeling that this was the clue to break up the "gruesome twosome."

Although clinical analyses of children's behavior was not a planned aspect of the project, it evolved as part of the teacher validity check. Due to this feature, the examiners were so popular at each school that there was even some resentment that they were not staying around longer.

The detailed account of the procedures used in administering and checking the results of administration of the Values Inventory for Children is provided in the hope that it will enable other examiners of young children to avoid what might otherwise be serious pitfalls in test development and use. The experience of the project staff makes it absolutely clear that nothing can be assumed when testing youngsters. One cannot assume that instructions are understood or followed. One cannot assume that stimuli are correctly perceived nor that the response given is the one intended. One cannot assume that children will work independently. These are matters which must be thoroughly checked not only during all phases of test development, but in any post-development administration. A test manual must include instructions for both children and test

administrator and the latter instructions must include the manner in which the examiner monitors, gives individual attention to a myriad of problems, and establishes the proper rapport with the group to be tested.

Data Analysis

Hypotheses

The major hypothesis for the development of the Values Inventory for Children was, of course, that the Maslow model would fit the test results. This implies that the dimensions used in test construction should emerge from an analysis of the data obtained. Extensions of this hypothesis might include such statements as:

(1) Concern with physiological need--gratification will decrease with age.

(2) Concern with safety will decrease with age.

(3) Enjoyment of beauty will increase with age.

(4) Concern with knowledge and understanding will increase with age.

(5) Concern with love will decrease with age.

(6) Children of low socioeconomic status will have greater concern with physiological and safety need-gratification than children of higher socioeconomic status.

There are any number of possible extrapolations which can be made from the model. It is necessary, first, to demonstrate that the model does, indeed, fit the data.

In addition to these hypotheses, it is possible to generate hypotheses with respect to each item in the test. For example, on the basis of the literature, it is possible to make the following conjectures:

(1) There will be a decreasing evaluation of (liking for) school (Item 27-X) and teacher (28-X) with increasing grade level (Neale & Proshek, 1967).

(2) Girls will value school and teacher more highly (like them better) than will boys (Crosswait, 1967; Lorg & Henderson, 1967).

(3) Negroes will value school less than will Anglos (Dowd, 1966).

Each of these three hypotheses can be tested by comparing responses to items 27-X and 28-X on the basis of sex, grade level, or race. As an exercise in speculation, the research staff went through the Values Inventory for Children item by item, formulating hypotheses with respect to sex, grade and ethnic differences which might appear. As an example, Item 3-X (Ghosts) produced the following:

(1) Boys will like ghosts better than girls.

(2) Second and third grade children will like ghosts better than first grade children.

(3) Indian children will like ghosts less than will any other ethnic group.

Since this exercise produced 720 hypotheses (many of them null), it would strain the reader's patience to state them all. Instead, item analyses were performed to test each one and the results are reported in the next chapter. Chapter IV discusses the relationship between these findings and the literature where appropriate as well as the implications of the more significant results.

Preparation for Analysis

Before analyses could be performed, it was necessary to translate item responses to computer input format. The procedure involved coding, keypunching, and checking of data. Each child tested has three data cards on which all obtained information is recorded. The first card contains identification information: Name, birthdate, test date, class code, age in months at time of test, grade, ethnic group, sex, and an identification number unique to each child in the sample and composed of a school code and a child number within that school. There is space on this card for additional information in the event of any follow-up studies. These cards can be alphabetized or sorted by other variables to provide convenient lists for checking purposes.

Card 2 contains all responses to the X booklet, and card 3 contains all responses to the Y booklet. Certain identification data are identical on all three cards for purposes of sorting and computer usage. The data duplicated on each card are: class code, chronological age, grade, ethnic group, sex, and I. D. number. Card 2 also contains information gained from responses to the training sequence in the X booklet, pages i through ix. Responses to pages vi through ix were originally designed as a reliability check, especially vi and vii, the two extreme faces. However, during the administration of the test, if a child missed these items, an examiner repeated instructions individually to the child until he understood the task. Consequently, almost all children show a perfect score for the training sequence, and those data were not used in analyses. The scores obtained in item i in the Y booklets are also not relevant to analyses.

For responses to items in the X booklet the faces were coded: 1, 2, 4, and 5. The lowest number was assigned to the most negative face. A code of 3 was used if the child missed the page and made no mark. If there were two circled faces on one page, the coding was handled as follows: Faces 1 and 2 were coded 1, faces 4 and 5 were coded 5. A 1 or 2 combined with either a 4 or 5 was coded 3.

Responses to items in the Y booket were coded 2 for the picture on the left side, and 4 for the picture on the right side. This allowed the same number 3 to be used for the "middle" response which was either a missed page, or both pictures marked

There were five steps in producing the corrected and completed deck of cards. The first step was to produce the coded sheets with all data recorded. A coder sorted booklets, assigned an I. D. number to each child, calculated the chronological age in months, and recorded all data. The method used to obtain a chronological age in months was that described in the instructions for the Stanford-Binet Intelligence Test, in which the assigned month starts 15 days before the test day.

The second step was keypunching of all data. Third, the booklets were "coded" a second time, but using the listing of the punched cards. In this way both coding and keypunching errors were being checked. Coding is always more complex than keypunching, and more errors occur there. Fourth, corrections were made on the cards and, fifth, categorization data were transferred from card 1 to cards 2 and 3.

Appendix D contains the code book and sample coding sheets used to record the data.

Analyses Proposed

It was originally proposed that the underlying dimensions of value be identified by factor analysis of scores from each ethnic group independently and from the total specified sample of 900 children and that ethnic differences be identified by performing t-tests between factor scores on common dimensions. This approach was based on the assumption that the factor structure would be the same for all ethnic groups. No further analyses were proposed at the inception of the project.

As the project progressed and results began to emerge from the computer, a number of questions arose. The first question was, "Suppose the factor structures are not the same for all ethnic groups?" If the same items do not load on the same factors in each case, it is meaningless to compare factors. Furthermore, the first sample of children (Mexican-Americans) was small enough and the variability of their responses apparently so large that it seemed unlikely that stable factors would emerge from this group. If this were true of the first group, it might also be true of any one or more of the remaining four. If, however, the total group of more than 900 children were analyzed, stable factors could be expected and factor scores for each group compared with those for each other group. Thus, while analyses were to be done for groups independently, they were not to be used for comparison purposes.

The next question was the conventional one of "How many factors to rotate?" According to the model, there should be seven underlying dimensions. It soon became apparent, however, that a seven-factor solution was not an ideal one. In some cases it was almost meaningless. Furthermore, when ethnic groups were analyzed independently, the number of factors in the most meaningful solution varied from group to group. Therefore, although the seven-factor solution for the total sample is provided in Chapter III, the model was abandoned and plans for further analyses were based upon what seemed to be the obvious factor structure of the test.

It soon became apparent in the analysis of the first ethnic group that certain items in the test were not going to appear on any of the factors. This loss of treasured items seemed intolerable and, falling back on the rationalization that while a dimension may not be adequately represented by a single item, that item may still be valid, the staff decided to explore all hypotheses for all items.

Item analyses, using the χ^2 statistic, were performed for the following comparisons:

(1) Sex differences in response for each ethnic group and for the total sample.

(2) Grade differences in response for each ethnic group and for the total sample.

(3) Ethnic group differences comparing each group with every other.

The final important matter was the question of ethnic similarities and differences with respect to the underlying dimensions of the Values Inventory for Children. The first approach was that originally proposed: namely, to test for the significance of the differences between factor scores.

Since the question of variability arose, F-tests were performed for each item comparing each ethnic group with every other as well as boys with girls and each grade level with the other two.

Results of these analyses are presented in Chapter III which follows.

CHAPTER III

RESULTS

Factor Analyses

The rationale for the construction of the Values Inventory for Children was described in Chapter I. The seven hypothesized dimensions of value were, in review: (1) Physiological; (2) Safety; (3) Love; (4) Esteem; (5) Aesthetics; (6) Self-actualization; and (7) Aggression.

Because seven dimensions were used to construct the instrument, the first step was to factor analyze the matrix of intercorrelations and to rotate seven factors to the varimax criterion. This step was taken with each group, independently, and with the total sample of 996 children. The results of the independent ethnic analyses were unsatisfactory as was the total sample solution which appears in Table 5. It should be noted that a positive factor loading for an X item means the children "liked" the item whereas for a Y item, a positive loading means they selected the second alternative. Items are described in terms of the code words used in Table 1, Chapter II.

For the seven factor solution the first factor (I) is one on which the response is a socially desirable or conforming one. A child scoring high on this factor chooses to listen in class (rather than talking), to do his duty rather than to play (or "goof off), to sleep at night rather than talk in bed, to stay in bed when he is sick rather than get up, to have a fight broken up by adults rather than let it continue, and an adult who does not smoke rather than one who does. He also does not like littering, stealing, sprinkling an adult with water, or defacing a fence by throwing vegetables at it. He would rather be admired than ignored.

Factor II is composed of items originally hypothesized as either self-actualization, physiological (health habits) or love (church) and aesthetics (nature). The child scoring high on this factor will like to bathe, brush his teeth, be examined by the doctor and talk to the nurse. He will also like studying, the classroom, the teacher, and going to church. He enjoys nature.

Factor III is composed of items originally designed to measure esteem, unselfishness (love), and leadership. In addition, one safety item (swing hi/lo) loaded significantly on this factor. The high-scoring child will eat his cookie rather than share it with his friend, will give his friend the small piece of cake rather than the large when he and his friend get cake, wants to be the teacher rather than a student when playing "school," prefers to be first in line rather than third, would rather play than watch someone else play, and likes to swing high rather than low to the ground.

Factor IV is composed of items originally selected to measure safety (fears), aggression, and competition. The high-scoring child

Table 5. Seven-Factor Solution for Total Sample (N = 996)

I.		II.	
Listen/talk	-.58	Bath	.56
Littering	-.50	Studying	.49
Duty/play	-.46	Classroom	.46
Bed/up	-.44	Brush teeth	.45
Smoke/not	.42	Teacher	.41
Sleep/talk	-.41	Church	.40
Water man	-.40	Doctor	.35
Stealing	-.37	Nurse	.31
Fight/separate	.32	Nature	.30
Admire/not	-.31		
Throw	-.30		

III.		IV.	
Eat/share	-.54	Soldier	.43
Push/swing	.54	Cave	.41
Watch/play	.48	Snake	.39
1st/3rd.	-.48	Boxing	.39
Student/teacher	.47	Knife	.38
Large/small	.37	Ghosts	.33
Swing hi/lo	-.34	Tug-of-war	.31

V.		VI.	
Hug/pat-Mother	-.45	Talk 1/many	.39
Pat/hug-Father	.44	Play 1/many	.35
		2 beds/1bed	.30

VII.	
No loadings above	.30

likes soldiers, walking into dark caves, snakes, boxing matches, whittling with sharp knives, ghosts, and playing tug-of-war. This might be called a "safety" factor if it were not for the facts that the items composing it are ones which differentiate boys from girls at an extremely high level of significance and that when sex is included as a variable, males have a very high loading on this factor. The factor is more aptly termed "masculinity" than safety.

Factor V is one which includes only two variables: preference for hugging father and hugging mother over being patted on the head by either.

Factor VI seems to be a "peer love" factor in which the choice is to either talk or play with many friends rather than just one and to sleep in the same bed with a friend rather than in separate beds.

In this solution factor VII had no loading above .30 and was considered to be imaginary.

The total common factor variance obtainable from the correlation matrix was 28 percent with the potential for extraction of 32 factors. The variance extracted at the seven-factor level was 19 percent.

Following the test of the seven hypothesized dimensions, factor analyses were performed rotating 8, 9, 10, 11, 12, and 13 factors. These solutions were applied to both the total sample and to each ethnic group, individually. Examination of the varying solutions led to the conclusion that the eight-factor result was most meaningful and best satisfied the criterion of simple structure. Tables 6 through 11 present the eight-factor solutions for the total sample and for each group.

Having settled on the most satisfactory solution, the staff felt confident enough to apply descriptors to the factors. Factor I was named "Social Conformity" since it was comprised of items which measured things one "ought" to do. It might be considered to be a "social desirability" factor if it were not for the fact that in the eight-factor solution those items relating to asocial behavior separated out into their own factor.

Factor II was called "Academic/Health" since the majority of the items were related to either academic or health behaviors or situations of a concrete sort. The presence of the item measuring liking for father on this factor is interesting and is not unique to this solution. The presence of church is not surprising since the church as an institution is related to the school as an institution and liking for one might be expected to be related to liking for the other.

Factor III was somewhat facetiously named "Me First" since the items have to do not only with dominance but with selfishness. The child who makes the choices involved in scoring high on this factor wants to be in front, take command, be a participant, and get the best he can even if he does these things at the expense of other children. He will not want to share, help others, or take a back seat to other children.

Table 6. Eight-Factor Solution for Total Sample (N = 996)

I. Social Conformity		II. Academic/Health	
Listen/talk	-.56	Bath	.55
Duty/play	-.45	Studying	.53
Sleep/talk	-.44	Classroom	.43
Bed/up	-.44	Teacher	.39
Tree hi/lo	.34	Doctor	.37
Smoke/not	.40	Brush teeth	.37
Fight/separate	.33	Nurse	.36
Littering	-.31	Father	.33
		Church	.30
III. "Me First"		**IV. Masculinity**	
Push/swing	.56	Boxing	.44
Student/teacher	.51	Cave	.42
Eat/share	-.50	Soldier	.41
Watch/play	.50	Knife	.37
1st/3rd.	-.46	Tug-of-war	.32
Large/small	.38	Snake	.31
V. Adult Closeness		**VI. Aesthetic**	
Hug/pat-Mother	-.52	Smelling	.37
Pat/hug-Father	.51	Music	.35
		Nature	.32
VII. Sociability		**VIII. Asocial Behavior**	
Talk 1/many	.39	Littering	.54
Play 1/many	.39	Water man	.47
		Stealing	.43
		Throw	.42

Table 7. Eight-Factor Solution for Mexican-Americans (N = 167)

I.		II.	
Ignore/tongue	-.46	Bath	.56
Water man	-.44	Studying	.50
Pat/hug-Father	-.39	Classroom	.44
Knife	-.38	Teacher	.43
Cave	-.37	Reading	.37
Cars	-.37	Church	.36
Smoke/not	.35	Nature	.35
Duty/play	-.33	Mother	.34
Money/present	.33	Brush teeth	.34
		Nurse	.33
		Father	.33

III.		IV.	
Listen/talk	-.51	Fight/separate	.49
Bed/up	-.43	Swing hi/lo	.47
Save/spend	-.42	Eat/share	.45
Sleep/talk	-.39	Simple/complex	.45
Milk/pop	-.35	1st/3rd.	.31
Admired/not	-.34	Tinker/blocks	.31
Tree hi/lo	.34		
Smoke/not	.32		
Nurse	.31		

V.		VI.	
Soldier	.62	Pat/hug-Father	.45
Cave	.49	Talk 1/many	.35
Boxing	.41	Help/self	.35
Snake	.40		
Tug-of-war	.38		
Ghosts	.35		
Drop cone	.33		
Littering	.33		
Knife	.32		

VII		VIII	
Student/teacher	.56	Stealing	.57
Push/swing	.49	Littering	.53
Large/small	.39	Water man	.51
Watch/play	.39	Throw	.47
Eat/share	-.30	Drop cone	.39

Table 8. Eight-Factor Solution for Orientals
(N = 250)

I.		II.	
Push/swing	.66	Bath	.55
1st/3rd.	-.63	Studying	.53
Eat/share	-.64	Brush teeth	.51
Watch/play	.57	Church	.45
Large/small	.49	Classroom	.45
Milk/pop	.42	Doctor	.44
Student/teacher	.41	Nurse	.40
Truth/lie	.40	Nature	.37
Near/far	-.38	Reading	.37
Sleep/talk	.36	Father	.36
Swing hi/lo	-.30	Home	.36
		Smelling	.35
		Teacher	.34
		Music	.34
		Cars	.31
		Mother	.30

III.		IV.	
Boxing	.58	Duty/play	-.59
Soldier	.52	Listen/talk	-.56
Knife	.49	Littering	-.47
Snake	.37	Stealing	-.46
Tree hi/lo	-.36	Throw	-.45
Swing hi/lo	-.36	Water man	-.44
Smelling	-.36	Sleep/talk	-.41
Ghosts	.34	Bed/up	-.39
Cave	.30	Eat/leave	-.36

V.		VI.	
Hug/pat-Mother	-.75	Talk 1/many	.61
Pat/hug-Father	.64	Play 1/many	.50
Near/far	.34	Admired/not	-.34

VII.		VIII.	
Smoke/not	.47	Tug-of-war	.39
Mother	.38	Littering	-.39
Father	.37		
Help/self	.32		

Table 9. Eight-Factor Solution for Anglos
(N = 195)

I.		II.	
Push/swing	.69	Studying	.61
Watch/play	.68	Classroom	.51
Eat/share	-.64	Doctor	.50
Student/teacher	.63	Teacher	.50
1st./3rd.	-.61	Bath	.44
Large/small	.51	Brush teeth	.41
Swing hi/lo	-.44	Police	.41
Near/far	-.44	Music	.38
Milk/pop	.34	Eat/leave	-.36
Truth/lie	.33	Church	.31
Duty/play	.30	Reading	.30

III.		IV.	
Cave	.56	Littering	.68
Boxing	.51	Stealing	.58
Soldier	.47	Water man	.52
Ghosts	.45	Throw	.49
Tree hi/lo	-.38	Listen/talk	.45
Eat/leave	.36	Truth/lie	.40
Hug/pat-Mother	.35		
Knife	.33		
Tug-of-war	-.31		

V.		VI.	
Smelling	.66	Bed/up	-.58
Music	.47	Duty/play	-.44
Mother	.42	Listen/talk	-.44
Nature	.40	Fight/separate	.42
Church	.30	Sleep/talk	-.39
		2 bed/1 bed	-.32
		Drop cone	-.30
		Eat/share	.30
		Eat/leave	-.30

VII.		VIII.	
Pat/hug-Father	.42	Home	.45
Money/present	.42	Simple/complex	.40
Bath	.38	Smoke/not	-.34
Hug/pat-Mother	-.36		

Table 10. Eight-Factor Solution for Negroes
(N=216)

I.		II.	
Bath	.62	Littering	.54
Teacher	.60	Stealing	.53
Classroom	.48	Knife	.46
Doctor	.48	Cave	.42
Studying	.43	Water man	.39
Brush Teeth	.43	Snake	.38
Father	.36	Soldier	.36
Church	.35	Police	.32

III.		IV.	
Student/teacher	.55	Painting	.42
Watch/play	.51	Throw	.40
Push/swing	.47	Milk/pop	.37
Talk 1/many	.37	Boxing	-.35
		Money/present	-.34
		Mother	.32
		Near/far	-.31

V.		VI.	
Smelling	.48	Listen/talk	-.58
Music	.41	Tree hi/lo	.57
Ghosts	-.41	Save/spend	-.48
Drop cone	-.40	Bed/up	-.40
Cars	-.34	Smoke/not	.39
Tug-of-war	-.32	Admired/not	-.36
Fight/separate	.30	Drop cone	-.35
		Littering	-.34
		Truth/lie	-.30

VII.		VIII.	
Eat/share	-.58	Play 1/many	.47
1st./3rd.	-.53	Pat/hug-Father	.45
Swing hi/lo	-.51	2 beds/1 bed	.43
		Snake	-.39
		Duty/play	.32

Table 11. Eight-Factor Solution for Indians
(N = 168)

I.		II.	
Snake	-.52	Studying	.59
Music	.44	Bath	.52
Water man	-.42	Teacher	.51
Brush teeth	.41	Classroom	.38
Drop cone	-.41	Police	.35
Stealing	-.40	Reading	.35
Doctor	.36	Nurse	.33
Throw	-.36	Play 1/many	.30
Classroom	.36		
Home	.32		
Church	.32		
Smoke/not	.30		

III.		IV.	
Knife	.48	Hug/pat-Mother	-.59
Cave	.43	Pat/hug-Father	.44
Tinker/blocks	-.42	2 beds/1 bed	.40
Near/far	-.41	Help/self	-.37
Boxing	.34	Policeman	.31
Tree hi/lo	-.33	Push/swing	.30
Cars	.32		

V.		VI.	
Student/teacher	.59	Duty/play	-.64
1st/3rd.	-.48	Listen/talk	-.57
Eat/share	-.44	Eat/leave	-.43
Push/swing	.39	Sleep/talk	-.43
Watch/play	.38	Admired/not	-.42
Large/small	.33	Smelling	.38
		Ignore/tongue	-.37
		Water man	-.35
		Fight/separate	.34
		Bed/up	-.32
		Help/self	.31

VII.		VIII.	
Play 1/many	.45	Nature	.65
Simple/complex	.41	Home	.36
Money/present	.39	Tree hi/lo	-.32
Talk 1/many	.31	Soldier	-.30
Eat/leave	.31		

Factor IV is the same masculine factor described in connection with the earlier seven factor solution and was, accordingly, labeled "Masculinity."

Factor V is called "Adult Closeness" because the two items involved measure just that. The aspect of love involving adults is evidently independent of that involving peers.

Factor VI includes only aesthetic items and is labeled "Aesthetic." The loadings are low but the factor is clear-cut and because the total variance in the entire solution is so limited, the factor can be considered to be real. The same is true of factor VII, labeled "Sociability." The two items have only to do with preferring many friends to only one whether in conversation or play.

Factor VIII consists of those items originally considered to measure either aggression or asocial values. The child high in this factor likes littering, sprinkling an adult with water (by accident), stealing, and throwing vegetables at a fence. It is named Asocial Behavior.

It should be noted, in comparing the seven and eight factor solutions, that some items have been lost. For example, Ghosts no longer loads on Masculinity although, as will be seen in looking at individual ethnic groups, it does so in the cases of Mexican-Americans, Orientals, and Anglos. In the case of the Sociability factor, the seven-factor solution includes the item which has the picture-subject sleeping in the same bed with his friend as opposed to sleeping separately. This occurs in two of the eight factor solutions (Negroes and Indians) but this item generally loaded on this factor in solutions which extracted and rotated a larger number of factors.

The Social Conformity factor has not only split off a factor of Asocial Behavior in the eight factor solution, but loses the item having to do with whether or not the picture subject likes to be admired. Mexican-American, Negro, and Indian solutions include this item in this factor.

The only other item lost from the seven factor solution is "swing hi/lo" which, while consistent with participation in activities and dominance, was not designed to measure the characteristics included in the "Me First" factor.

Further comparison of the eight with the seven factor solution shows that the eight factor picks up two aesthetic items to form an Aesthetic factor and adds liking for father to the Academic/Health factor as well as, interestingly, being low in the tree to the Social Conformity factor.

It should be further noted that some items had loadings of less than .30 but greater than .25 on some of these defined factors in the eight-factor solution. For example, the Social Conformity factor also included staying at the table to eat as opposed to leaving food unfinished (-.28) and ignoring someone who sticks out their tongue as opposed to retaliating in kind (-.28). The Academic/Health factor also included

liking for reading (. 29). When loadings less than . 30 are considered, swinging high or low remains part of the "Me First" factor (-. 25) as does choosing to drink pop rather than milk (. 25). Ghosts has a loading of . 27 on Masculinity and sleeping in one bed has a loading of . 26 on Closeness to Adults rather than on Sociability. Less explainable low loadings are for tying one's own shoe rather than letting mother do it (. 26) on Social Conformity and preferring to toss a ring onto a close stake rather than one further away (. 27) on Adult Closeness.

Rather than itemize separately the final factor solutions for each of the five ethnic groups, a comparison is presented which shows the relationship between the factor structure for the entire sample of 996 children and that of each ethnic group. Each item listed below is identified with the factor on which it loads in each group.

Factor I--Social Conformity

Item	Total	M	O	A	N	I
Listen/talk	I	III	IV	VI	VI	VI
Duty/play	I	I	IV	VI	VIII	VI
Sleep/talk	I	III	IV	VI		VI
Bed/up	I	III	IV	VI	VI	VI
Tree hi/lo	I	III	III	III	VI	VIII
Smoke/not	I	III		VIII	VI	I
Fight/separate	I	IV		VI	V	VI
Littering	I & VIII	VIII	IV	IV	VI	
Save/spend		III			VI	
Admired/not		III	VI		VI	VI
Drop cone		VIII		VI	V & VI	I
Eat/leave			IV	VI	VI	VI
Ignore/tongue		I				VI
Truth/lie			I	I & V	VI	
Water man		I	IV	IV	II	VI

Factor I for the total sample appears to coincide with Factor III in the Mexican-American sample, Factor IV in the Oriental group, Factor VI in the Anglo group, and Factor VI in both the Negro and Indian groups. The major items loading on Social Conformity are listed above. Where an Asocial Behavior factor appears (i. e., Factor VIII for Mexican-Americans and Factor IV for Anglos), asocial items do not load on this factor as they do in the Negro, Oriental and Indian analyses.

No matter how many factors were extracted and rotated (ranging from seven to thirteen), Factor II remained relatively stable with respect to both academic and health values. Items are, again, listed to include all those appearing in the total sample solution and the predominantly occurring ones from the individual ethnic solutions.

Factor II--Academic/Health

Item	Total	M	O	A	N	I
Bath	II	II	II	II	I	II
Studying	II	II	II	II	I	II
Classroom	II	II	II	II	I	II
Teacher	II	II	II	II	I	II
Doctor	II		II	II	I	
Brush teeth	II	II	II	II	I	
Nurse	II	II	II	II		II
Father	II	II	II		I	
Church	II	II	II	II	I	I
Reading		II	II	II	I	II
Mother		II	II	V	I	
Nature	VII	II	II	V		
Music	VII		II	II	V	I
Police				II	II	II

Additional significant loadings on this factor were for home, smelling, cars (Orientals); eating as opposed to leaving the table (Anglos); and playing with many friends (Indians). In all cases but that of the Negro sample, this factor is the second one to appear. In all cases, items described have positive loadings, that is, they represent liking for these activities or situations. It should also be noted that while reading did not appear on the total sample analysis, it loaded significantly in every ethnic group and just missed significance in the total (.29).

The third factor is also quite consistent from group to group.

Factor III--Me First

Item	Total	M	O	A	N	I
Push/swing	III	VII	I	I	III	V
Student/teacher	III	VII	I	I	III	V
Eat/share	III	IV & VII	I	I	VII	V
Watch/play	III	VII	I	I	III	V
1st/3rd	III	IV	I	I	VII	V
Large/small	III	VII	I	I		V
Swing hi/lo		IV	I	I		VII
Truth/lie			I	I		
Near/far			I	I	IV	III
Milk/pop		III	I	I	IV	

Factor III in the total group coincides with a combination of part of Factor IV and all of VII in the Mexican-American sample, Factor I in both Oriental and Anglo samples, a combination of Factors III and VII in the Negro sample, and Factor V in the Indian sample. It is interesting to see how clear-cut and comparable the Oriental and Anglo samples are, a result probably attributable to the fact that this is the first factor to emerge in their analyses as well as to the fact that they

were drawn from the same school settings. The child high on this factor likes to swing (not push), be the teacher (not the student), eat his cookie (not share it), play (not watch), be first in line, and give his friend the smaller piece of cake. Items loading on this factor in the Anglo and Oriental samples were: (1) swing high; (2) tell a lie rather than take the blame; (3) try for the near ring toss pole rather than the farther one; and (4) drink pop rather than milk.

Factor IV--Masculinity

Item	Total	M	O	A	N	I
Boxing	IV	V	III	III	IV	III
Cave	IV	V	III	III	II	III
Soldier	IV	V	III	III	II	VIII
Knife	IV	V	III	III	II	III
Tug of war	IV	V	VIII	III		
Snake	IV	V	III		II	I
Ghosts		V	III	III	V	
Tree hi/lo		III	III	III	VI	III

Although this factor is not as clear-cut as the preceding factors, it is evident that it is represented by Factor V in the Mexican-American group, III in both Oriental and Anglo samples, II in the Negro sample, and III in the Indian sample. Additional items loading on these factors are: liking to see a girl drop her ice cream and liking for littering (Mexican-American); swinging high and not liking to smell flowers (Orientals); leaving the table before finishing and being patted rather than hugged by mother (Anglos); and liking for littering, stealing, sprinkling the man with water, and the police (Negroes). For Indians, liking for cars and for playing with tinker toys rather than blocks also have significant loadings on the comparable factor (III). Some of these additional loadings in these groups are understandable in terms of masculinity (e. g., drop/cone, which depicts girls in both sex forms and tinker toys which differentiates between girls and boys and may be considered a measure, to some extent, of mechanical interest). The positive loading for police in the Negro sample, combined with asocial behavior items, is difficult to understand but is in accordance with a consistent finding from other analyses (using larger numbers of factors) where police also obtained a positive loading on factors associated with asocial behavior.

Factor V--Adult Closeness

Item	Total	M	O	A	N	I
Hug/pat mother	V		V	VII		IV
Pat/hug father	V	VI	V	VII	VIII	IV
Help/self		VI	VII		V	IV
2 beds/1 bed				VI	VIII	IV

As subsequent factors are extracted, correspondence between solutions becomes less clear. For the Mexican-American, Factor VI

is defined by Pat/hug-Father but Hug/pat-Mother does not appear anywhere in the solution, whereas Help/self (in the direction of being dependent) is associated with being hugged. This finding is replicated in the Indian sample where being dependent is also associated with wanting to be hugged although in this sample, being hugged by Mother also appears. Among Orientals the structure is the same as it is for the total sample. Anglos also have significant loadings for these two variables on their Factor VII although Pat/hug-Father is also associated with masculinity in the expected direction--those who want to be hugged by their father will have lower scores on Masculinity. Negro children have no significant loading with respect to closeness to Mother but they have significant loadings for closeness to Father and preference for sleeping in the same bed with a peer on their comparable factor. In addition to the identified variables, Mexican-Americans also prefer many friends to talk to if they like to be hugged by their father; Orientals prefer the closer post in ring-toss; Anglos prefer presents to money and like to take baths; Negroes like to play with many friends, to do their duty, and do not like snakes; Indians like police and would rather swing than push someone else.

Factor VI--Aesthetic

Item	Total	M	O	A	N	I
Smelling	VI		II	V	V	VI
Music	VI		II	V	V	I
Nature	VI	II	II	V		VIII

It should be remembered that this Aesthetic factor did not appear in the seven-factor solution. Furthermore, in several groups it is intermingled with factors already described. In the Mexican-American sample, nature is associated with the Academic/Health factor (II). Smelling flowers has a loading of .29 on the same factor in this group, as well as one of the same amount on the Closeness to Adults factor (VI). Music does not appear in their solution. All of the Aesthetic items load significantly on the Oriental Factor II which is also Academic/Health. The Anglo Factor V is defined by Smelling, Music, Nature and Mother and has an additional significant loading for Church. The Negroes also have a factor defined by Smelling and Music but followed by a number of items generally associated with Masculinity (i.e., Ghosts, dropping the ice cream, Cars, Tug-of-war, and fighting). It should be noted that their Masculinity factor is generally loaded with variables associated with asocial behavior and that masculinity items on this factor (V) are negatively related to aesthetic items. The Indian sample has a factor (VIII) defined by Nature but Music appears on their first factor which is an almost uninterpretable one. These "left-over" factors will be discussed following the elaboration of the remaining interpretable factors.

Factor VII--Sociability

Item	Total	M	O	A	N	I
Talk 1/many	VII	VI	VI		III	VII
Play 1/many	VII		VI		VIII	VII

This factor requires even more explanation than the preceding factors. For Orientals, the picture is clear and the factor coincides with that of the total sample except that being admired also loads significantly for this group. Mexican-American children have a significant loading only for talking with many friends and this appears on their Closeness to Adults factor (VI). Anglos have no significant loadings for either variable on any factor. Negroes prefer to talk to many friends if they are high on the Me First factor (III). They prefer to play with many if they like to be hugged by Father. Indians have a comparable factor which also includes preference for complex (or difficult) tasks, getting presents rather than money, and leaving the table with food unfinished (an item which has an element of sociability in it since the impetus for leaving is to stay with friends who are leaving).

Factor VIII--Asocial Behavior

Item	Total	M	O	A	N	I
Litter	VIII	VIII	IV	IV	II	
Water man	VIII	VIII	IV	IV	II	I
Steal	VIII	VIII	IV	IV	II	I
Throw vegetables	VIII	VIII	IV	IV	IV	I
Drop cone		VIII				I

The items included in this factor are those originally designed to measure aggression or moral behavior. The structure seems clear for all groups but if the factors are examined, it will be found that they are, in some cases, confounded by other variables.

The Mexican-American Factor VIII is very clearly an Asocial Behavior factor and includes liking for seeing the girl in the item lose her ice cream. Among Orientals, Asocial Behavior is imbedded in the Social Conformity factor (IV). Anglos have a definite Asocial Behavior factor (IV) which also includes liking for talking in class and telling lies. The Negro Asocial Behavior Factor (II) is so constructed as to coincide with the Negro Masculinity factor. The factor loadings for Indians are most confusing since their Factor I is almost uninterpretable, consisting, as it does, of items measuring masculinity, health, academic matters and social conformity. Much speculation might be made on the overlap between social nonconformity and asocial behavior among Orientals and between masculinity and asocial behavior on the part of Negroes. No such speculation will be included here.

While there is some consistency between groups with respect to the factors isolated, there is a great deal of inconsistency. In the individual ethnic solutions, the amount of common factor variance was considerably larger than in the total sample solution. The proportion of common factor variance extractable, the number of factors which could be extracted, and the proportion of variance extracted with eight factors are as follows:

	Proportion Common Factor Variance	Number of Factors	Proportion Extracted in Eight Factor Solution
Total Sample	.28	32	.20
Mexican-Americans	.51	39	.26
Orientals	.45	36	.28
Anglos	.52	38	.30
Negroes	.52	39	.28
Indians	.52	39	.27

The cause of the low common factor variance is probably attributable to the heterogeneity of the items included in the instrument. One-third (21) of the items are "lost" with the eight-factor solution. These are items which either measured more than one factor or were independent of all other items.

In examining the solutions by ethnic group, several uninterpretable factors were identified. For the Mexican-Americans, Factor I included items which properly belonged in Social Conformity, Asocial Behavior, Masculinity, and Adult Closeness. Factor IV included items appropriate to Social Conformity and Me First. In the Oriental group, Factor VIII included only two items--Tug-of-war and Littering. Among Anglos (who, it should be recalled, had no Sociability factor), Factor VIII consisted of items pertaining to liking for home, preference for complex puzzles and choice of smoking. The Negro Factor IV was a composite of liking for painting, throwing vegetables, and mother; a dislike for boxing; and a choice of pop (rather than milk), money (rather than a present), and the near ring toss. Among the Indians, Factor I was composed of items relating to almost every factor--Masculinity, Aesthetics, Asocial Behavior, Academic/Health and Social Conformity. None of these factors can be properly interpreted.

It was originally proposed that the groups be compared on the basis of common factors which, presumably, would emerge from separate analyses. Since there is much overlap but much inconsistency, it seemed most appropriate to revise this procedure and to adopt those factors derived from the total sample for inter-ethnic comparisons. Consequently, factor scores were derived from the total sample solution and used as the basis for comparison.

Although the hypothesized dimensions did not emerge, the final solution seems so meaningful and so consistent with what is known about children that it is almost entirely satisfactory. The dimensions of value isolated in the eight-factor solution are ones of great potential utility to educators. It is useful to find, for example, that the factor

having to do with things one "ought to do" (Social Conformity) is independent of the factor defined as Asocial Behavior. It is also useful to find that love relationships with pa·ents are independent of social relationships with peers. The isolation of a Masculinity factor at this age level is also a fruitful finding. One of the most consistent and interesting findings is that in every analysis all academic values were related to health values, a finding having implications which, to this writer's knowledge, have never been hypothesized, much less explored.

Relating the rather clinical impressions of teachers to the final accepted analysis, it is possible to see a consistency between the two. Teachers look for the child who is academically oriented and the child who is either really hostile or is only a "goof-off" in class. The separation of sociability from such matters as talking in class and talking in bed when one should be sleeping, or leaving the table with friends and getting out of bed when sick to go with a friend indicates that there is a "healthy" type of sociability and another type which is non-conforming. If scores can be derived, based on these results, the patterns should prove very prognostic of child adjustment to and advancement in school. For example, the masculine child (boy) need not be a nonconformer nor aggressively hostile. The child who scores high on Academic/Health and Social Conformity and low on Me First (given sufficient capability) will probably achieve above standard. It is the child who scores high in non-conformity, asocial behavior, and "me first" who will present problems. Although Adult Closeness and Aesthetics seem independent of other factors, liking for father (and, in some solutions, mother) are also prognostic of academic values.

It remains for empirical investigation to determine whether or not these children behave in a manner consistent with their expressed values, but the clinical assessments by teachers obtained in the course of testing suggest very strongly that they do.

In the final solution, using eight factors for rotation, 21 items were "lost" in the sense that they did not load on any of the factors above the accepted .30 level. However, some of these items were found to have potential and to, in general, load slightly below the .30 cut-off on the expected factors. Each of the 21 items are discussed below in terms of meaningful loadings on the individual ethnic factor solutions.

Item 1X Painting. This item has contributed almost no variance to any of the solutions. It loads significantly only on Factor IV for Negroes and in that solution defines a factor composed of items which generally load on Asocial Behavior, Social Conformity, and Masculinity.

Item 2X Mother. While this item loads significantly on Academic/Health for Mexican-Americans and Orientals, it loads on Aesthetics for Anglos.

Item 3X Ghosts. This item is generally associated with Masculinity (Mexican-Americans, Orientals, Anglos) but with Aesthetics for Negroes and no factor for Indians.

Item 4X Reading. Reading is generally associated with Academic/Health (Mexican-Americans, Orientals, Anglos, Negroes, and Indians) and just misses significance by attaining a loading of .29 in the total sample. Its loading is significant in all ethnic solutions with the exception of the Negro sample.

Item 5X Dropped Cone. Liking to see a little girl drop her ice cream is generally associated with Asocial Behavior items (Mexican-Americans; Indians) but also with Social Conformity (Anglos; Negroes), Masculinity (Mexican-Americans), and Aesthetics (Negroes).

Item 9X Cars. Liking to step out into the street with cars coming is associated only slightly with Academic/Health in the case of Orientals and Masculinity in the case of Indians.

Item 21 Police. Liking for the policeman is positively associated with Academic/Health among Anglos, with combined Asocial and Masculinity elements in Negroes, and with Closeness to Adults among Indians.

Item 30X Home. Liking to go home is associated with Academic/Health among Orientals.

Item 2Y Save/spend. Preference for saving money rather than spending it loads significantly on the Social Conformity factor for both Mexican-Americans and Negroes.

Item 4Y Help/self. Preference for tying one's own shoelaces rather than having mother do it loads on the Social Conformity factor for Indians. In almost all solutions this item contributed so little that it can be assumed that "independence," which it was designed to measure, is not related to the dimensions isolated.

Item 5Y 2 beds/1 bed. Preference for sleeping in the same bed with a friend rather than in separate beds was negatively related to Social Conformity among Anglos, positively related to a factor which combined Closeness to Adults and Sociability for Negroes, and loaded positively on the Closeness to Adults factor for Indians.

Item 6Y Ignore/tongue. Choosing to ignore someone who stuck out their tongue rather than retaliate loaded negatively on the first factor for Mexican-Americans along with items related to both Asocial Behavior, Masculinity, and Social Conformity, and on the Social Conformity factor for Indians. It almost achieved significance (-.28) on the same factor for the total sample.

Item 7Y Tinker/blocks. Preference for tinker toys over blocks loaded on an Indian factor which contained several Masculinity items. Although originally designed to measure liking for complexity, this item suffered from two defects. One had to do with the fact that the tinker-toy constructor (picture-subject) had a diagram to follow and it struck some children as removing their independence. Another aspect involved the fact that liking for it is sex-linked with boys much preferring it. It may be a measure of mechanical interest more than anything else.

Item 12Y Simple/complex. Although the "complex" puzzle is also more difficult, this item does not seem related to either complexity as in tinker/blocks or difficulty as in near/far ring toss. In the Indian sample it loads on Factor VII where it is associated with Sociability, in a negative direction (i.e., those who choose the complex puzzle are unsociable).

Item 14Y Eat/leave. This item almost reaches significance on the Social Conformity factor for the total sample, loading -.28. Its relation to the same factor in both the Anglo and Indian groups is significant. This seems logically consistent with the fact that children know they are not supposed to leave the table until they have finished their food.

Item 15Y Truth/lie. Telling a lie is related to the Me First factor among Orientals and Anglos and is also related to the Asocial Behavior factor in the Anglo sample. It is negatively related to Social Conformity among Negroes. All these findings make sense in that the child who wants to get ahead of or take advantage of his friends probably will also blame them for something he has done and, at the same time, lying is both asocial and nonconforming.

Item 16Y Money/present. Choosing to get a present rather than money was originally designed to find out whether the child was curious enough to take a chance on the contents of a box rather than accepting something the value of which he could see. It soon became evident that the present represented something more than the "unknown" and was interpreted as a symbol of "love." Money also could be earned or given while a present is always given. For Anglos, the present seemed related to the factor most compatible with Adult Closeness.

Item 17Y Milk/pop. Children were supposed to choose milk in the interests of good health habits. Mexican-Americans chose it if they were low on Social Conformity. Orientals chose pop if they were high on Me First, as did Anglos.

Item 18Y Near/far. Choosing the far ring toss pole was designed to measure the aspect of self-esteem which might be called "level of aspiration" or "self-confidence." For the Orientals, the choice of the far toss was negatively related to Me First and to Adult Closeness. For the Anglos it was also negatively related to Me First. For the Indians it loaded on a factor most compatible with the total sample Masculinity factor, with the far choice negatively related to masculine items.

Item 22Y Admired/not. This item was designed to measure self-esteem with respect to liking to show one's products to friends. In many of the unreported analyses (i.e., 9, 10, 11, or more factor solutions) it ended up loading on Social Conformity with those who conformed also choosing to be admired. This was also true in the eight-factor analyses of Mexican-Americans, Negroes, and Indians whereas among Orientals, it loaded on Sociability with the child who wanted many friends also wanting to be admired.

Item 25Y Swing hi/lo. Originally it was thought that the child who would choose to climb high in the tree would also choose to swing high in the swing. The item was supposed to represent safety as opposed to risk. The two items did not end up loading on the same factors in the final analyses. For Mexican-Americans the item loads on uninterpretable Factor IV which includes liking to let others fight, not sharing food, and liking for simple puzzles and being first in line. For the Oriental, Negro, and Anglo groups, swinging high was positively related to Me First.

Item Analyses

Although not originally planned, it became evident in the course of testing children that it would be of value to attempt to differentiate between ethnic groups on the basis of items as well as factors. In addition, the literature review indicated that there is a good deal of information available concerning the differences between sexes and age levels with respect to interests, characteristics of temperament, and values. Therefore, the staff decided to examine sex, grade, and ethnic differences using the χ^2 statistic as the measure of differentiation.

In presenting the results of the χ^2 tests, it seemed unnecessary to provide the reader with the value of each χ^2 and the attendant degrees of freedom. Rather, the results are presented in tables with significance levels and the direction of the differentiation. The .10 level of significance is presented for those items for which the staff had previously generated hypotheses with respect to sex, grade, or ethnic difference when the difference was in the hypothesized direction. The use of the .10 level for a two-tailed test is, of course, equivalent to a .05 level of significance with a one-tailed test.

In a number of cases, χ^2s were significant because of some peculiarity of the distribution of responses. Generally, these peculiarities had to do with the fact that the groups being compared differed in the extent to which they tended to use extreme response categories in the X items. When presenting one group (sex, grade, or ethnic) as being "greater than" another, what is meant is that their mean is higher. In the case of the X items this indicates that they "like" the stimulus picture better than the comparison group does. Often, the t-ratios are not significant and the results presented here should be viewed more in the light of their consistency than their magnitude. It is not intended that conclusions or generalizations be based on these results.

For the X items there were five possible responses: one of the four faces or a "no response" which meant that the child did not answer. Thus, if there were no omits in either group for an item, the degrees of freedom were three and if anyone in either group omitted the item, the degrees of freedom were four. Similarly, the Y items have three possible responses: the two alternatives and "no response" and the degrees of freedom are two or one. For both X and Y items, the omit is coded "3".

For the reader who wishes to inspect the distributions of item responses, they appear in Appendix E. It can also be seen in Appendix E that only eight items had as high as two percent omits. Discussion of the differences found will include explanations of those differences which, while significant, are artifacts of the statistic.

Sex Differences

All of the χ^2s significant beyond the .10 level are presented in Table 12 since all hypotheses for sex differences were confirmed. They are summarized here in accordance with the grouping resulting from the factor analysis. Items which never loaded significantly on any factor are discussed at the end of this section.

Considering items loading on Factor IV, Masculinity, first, boxing is universally better-liked by boys than girls. Tug-of-war is preferred by boys in the total sample ($<.001$) and by boys among Orientals, Anglos, and Negroes. The cave is preferred by boys in the total sample ($<.001$) and by boys in the Oriental, Anglo, and Negro groups. Whittling with the knife is preferred by boys in the total sample ($<.001$) and in the Oriental and Negro samples. The snake is preferred by boys in the total sample ($<.001$) and in the Oriental and Negro samples.

Going next to Factor I, Social Conformity, items which differentiate between boys and girls are as follows. Listening in class as opposed to talking does not differentiate in the total sample but among Orientals and Anglos the girls are more inclined to listen. With respect to doing one's duty as opposed to playing, girls are significantly higher in the total sample and among Anglos. The differentiation is not great, being only at the .10 level in the total sample. Girls, significantly more often than boys, choose to sleep when they should, rather than talk ($<.02$) and this difference appears among Anglos and Indians. Girls will more often stay in bed when they are sick than will boys ($<.05$) but within ethnic groups the difference holds only for Anglos. Girls slightly ($<.10$) more often choose non-smoking to smoking but the ethnic difference holds only for Anglos. Boys are much more inclined to let a fight go on than to have it interrupted by adults ($<.001$) and this is true in all groups except the Negro. Girls, significantly more than boys ($<.001$), prefer to be low in the tree and this difference holds for all ethnic groups except the Mexican-American. Littering does not differentiate between the sexes at all. In general, girls are higher on the Social Conformity factor than boys are, but most of the differences are rather small.

Factor III, Me First, is a factor composed of items having to do with getting what one wants and assuming a dominant position with respect to one's peers. The highest loading item, Push/swing, does not differentiate within ethnic groups or in the total sample; neither does Student/teacher, the second highest loading item. Girls are generally higher than boys in sharing their cookie with a friend rather than eating it ($<.02$ level for total group; but not within any given ethnic group). With regard to playing rather than watching someone else play, boys are higher than girls in the total group ($<.001$) and in all other groups except for Orientals. Being first in line as opposed to third

Table 12. Sex Differences by Ethnic Group and for the Total Sample with Significance Levels for χ^2s

	M		O		A		N		I		Total	
	B	G	B	G	B	G	B	G	B	G	B	G
N =	90	77	117	134	90	105	120	96	79	89	496	500
Item	p	BvsG	p	BvsG	p	BvsG	p	BvsG	p	BvsG	p	BvsG
1X Painting												
2X Mother					.05	G>B					.01	G>B
3X Ghosts			.01	B>G	.05	B>G					.01	B>G
4X Reading											.05	G>B
5X Drop Cone												
6X Brush Teeth												
7X Soldier	.001	B>G	.001	B>G	.001	B>G	.001	B>G	.02	B>G	.001	B>G
8X Nurse	.05	G>B	.001	G>B	.10	G>B	.001	G>B	.10	G>B	.001	G>B
9X Cars	.05	G>B					.01	B>G			.001	G>B
10X Music											.01	G>B
11X Father							.10	G>B				
12X Boxing	.05	B>G	.001	B>G	.001	B>G	.001	B>G	.10	B>G	.001	B>G
13X Throw					.05	B>G	.02	G>B				
14X Smelling			.001	G>B	.001	G>B					.001	G>B
15X Tug-of-war			.05	B>G	.05	B>G	.10	B>G			.001	B>G
16X Studying											.02	G>B
17X Stealing			.01	B>G	.05	B>G					.001	B>G
18X Bath	.02	B>G			.10	G>B					.10	G>B
19X Snake			.001	B>G	.001	B>G					.001	B>G
20X Church					.10	G>B	.01	G>B			.01	G>B
21X Police					.02	G>B	.05	B>G			.01	G>B
22X Nature			.01	G>B	.10	G>B					.02	G>B
23X Littering												
24X Doctor									.01	B>G		
25X Water Man												
26X Cave			.05	B>G	.01	B>G	.01	B>G			.001	B>G
27X Classroom					.10	G>B	.10	G>B			.01	G>B
28X Teacher	.10	G>B	.05	G>B							.02	G>B
29X Knife			.05	B>G	.001	B>G			.05	B>G	.001	B>G
30X Home	.05	G>B										

Table 12 (continued)

Item		M p	M BvsG	O p	O BvsG	A p	A BvsG	N p	N BvsG	I p	I BvsG	Total p	Total BvsG
1Y	Tree lo			.001	G>B	.001	G>B	.10	G>B	.01	G>B	.001	G>B
2Y	Save												
3Y	Play/many												
4Y	Help												
5Y	2 beds												
6Y	Tongue			.05	B>G	.01	B>G	.05	G>B	.01	B>G	.001	B>G
7Y	Tinker	.05	B>G	.01	B>G	.01	B>G			.01	B>G	.001	B>G
8Y	Hug-Father			.01	G>B	.001	G>B	.01	G>B			.001	G>B
9Y	Fight	.01	B>G	.01	B>G	.01	B>G			.10	B>G	.001	B>G
10Y	Not smoke									.10	G>B	.10	G>B
11Y	Duty					.01	G>B					.10	G>B
12Y	Easy												
13Y	Listen			.10	G>B	.05	G>B					.001	G>B
14Y	Eat					.05	G>B			.10	G>B	.01	G>B
15Y	Truth											.05	G>B
16Y	Money												
17Y	Milk												
18Y	Far	.10	B>G	.01	B>G	.10	G>B						
19Y	Large					.01	G>B					.001	G>B
20Y	Bed					.10	G>B					.05	G>B
21Y	Talk/many					.01	G>B					.01	G>B
22Y	Admired					.01	G>B					.01	G>B
23Y	Push												
24Y	Play	.02	B>G			.05	B>G	.10	B>G	.05	B>G	.001	B>G
25Y	Swing hi			.05	B>G							.01	B>G
26Y	1st												
27Y	Teacher												
28Y	Share											.02	G>B
29Y	Hug - Mother			.001	G>B	.001	G>B	.001	G>B			.001	G>B
30Y	Sleep					.10	G>B			.05	G>B	.02	G>B

does not differentiate in any ethnic group nor in the total sample. Giving the larger piece of cake differentiates in favor of the girls in the total sample ($<.001$) but only in the Anglo group when ethnic groups are considered separately. In general, girls may be slightly more generous and slightly less inclined to "lord it over" their peers but no such generalization should be made with respect to this factor.

Factor II, Academic/Health, is one of the most important factors since it contains the largest number of items with significant loadings. The first item is liking for taking a bath which only slightly differentiates ($<.10$) between boys and girls with girls getting the edge in the total sample and among Anglos, but boys getting it in the Mexican-American group. Studying differentiates between the sexes in the total sample ($<.02$) but not within any ethnic group. Liking for the classroom also favors girls ($<.01$) in the total sample but only slightly favors them ($<.10$) in the Anglo and Negro samples. Liking for the teacher also favors girls ($<.02$) in the total sample as among Mexican-Americans and Orientals. Liking for the doctor favors boys in the Indian sample, but not in the total group. Liking for brushing teeth does not differentiate. Liking for the nurse favors girls in all groups and in the total sample at the .001 level. Liking for father only favors girls among Negroes and not in the total sample. Liking for church finds girls significantly ($<.01$) higher in the total sample and also among the Anglos and Negroes. In summary, it can be said that it is doubtful whether either sex values academic activities or health activities more although with respect to academics the girls seem to have a slight edge.

Factor V, identified as Closeness to Adults, includes only two items: wanting to be hugged by father and by mother as opposed to being patted. In this respect, girls are significantly higher than boys in wanting to be hugged by father ($<.001$) and in wanting to be hugged by mother ($<.001$) with the consistency holding for Orientals, Anglos, and Negroes. It is interesting to note that there are no significant sex differences for Mexican-Americans or Indians on this factor.

With respect to Factor VI, Aesthetic, smelling flowers favors girls not only in the total sample ($<.001$) but in the Oriental and Anglo groups. Enjoyment of nature also favors girls in the total sample ($<.02$) as well as in the Oriental and Anglo groups. Music is favored by girls in the total sample ($<.01$). In general, it seems that girls are slightly more aesthetic than boys.

Factor VIII, labeled Asocial Behavior, includes items relating to liking for littering, stealing, throwing vegetables against a fence (defacing property), and sprinkling water on a man. Littering does not differentiate between sexes either in the total sample or within any ethnic group. Stealing receives greater approval from boys than from girls ($<.001$) in the total sample and in the Oriental and Anglo samples. Sprinkling water on the man (by accident) shows no total sample nor ethnic sex differences. Throwing vegetables against a fence (as done by a friend with the picture-subject watching) does not show an overall sex difference but in the Anglo sample, boys give it higher approval than girls whereas in the Negro sample, girls give it higher approval

than boys. In summary, it is difficult to draw any conclusions with respect to sex differences in liking for Asocial Behavior since girls do not seem to be consistently differentiated from boys in this respect

Factor VII, Sociability, like the Closeness to Adults factor, contains only two items: liking for many friends either to play with or to talk to. Playing with many friends does not differentiate but talking with many friends favors girls with the total sample showing a significant difference at the .01 level and Anglos showing one at the same level. It cannot be concluded from this that girls are more sociable than boys.

A large number of items have not been included in this discussion. The remainder will be considered individually. Liking for Painting does not differentiate. Girls seem to be more favorable toward mother than boys in the total sample ($<.001$) and among Anglos ($<.05$). Ghosts are better liked by boys, especially in the Oriental and Anglo groups. Reading is preferred by girls when the total sample is considered. No differences occur with respect to the girl dropping her ice cream. Walking out in front of cars is more liked by girls than boys in the total sample ($<.001$) and among Mexican-Americans although among Negroes, boys like it better. This finding is difficult to explain.

Police are better liked by Anglo girls than boys and by Negro boys than girls, but the total analysis finds boys to have a higher mean on this variable. Going home is more liked by Mexican-American girls than boys but no other ethnic groups evidence any differentiation nor does the total sample.

Saving Money (as opposed to spending), being independent in tying one's own shoe as opposed to having mother tie it, and sleeping together with a friend as opposed to sleeping apart do not differentiate between sexes.

Sticking out one's tongue at a friend who has done the same clearly differentiates between boys and girls with boys much more likely to retaliate. This difference is noted in the total sample ($<.001$) as well as within all groups except the Mexican-American. Boys would much rather play with the tinker toys than the blocks (in general, $<.001$, and within all groups except the Negro). Choosing the complex puzzle rather than the simple one and choosing the present rather than the money are nondifferentiating items. Choice of milk over pop does not differentiate between sexes, either. Eating one's food rather than leaving the table and telling the truth rather than a lie both favor the girls in the total sample. With respect to the ring toss, boys more often choose the far one among Mexican-Americans and Orientals but girls more often choose it in the Anglo group. Overall, there is no significant difference between the sexes. Being admired favors girls in general, but within ethnic groups it favors girls only within the Anglo sample. Swing hi/lo shows no sex differentiation.

It is interesting to note the differences between ethnic groups with respect to sex differentiation. When only those items discriminating at better than the .05 level of significance are counted, it is

found that Anglos lead the list with 25 differences and Orientals are close behind with 20. Negroes show only 11 items differentiating, while Mexican-Americans and Indians show 9 and 8, respectively. If one considers these findings in terms of sex-role differentiation, previous findings of larger differences among Anglos and small differences between Indian boys and girls (Havighurst and Neugarten, 1955) are confirmed. The sex-role differences also seem to lie on a continuum which corresponds to the degree to which the children are integrated into the major culture. It might also be speculated that socioeconomic status plays a part in sex role differentiation with respect to values.

Grade Differences

As a child matures, it may be assumed that his values will also change in the direction of increased socialization. To examine this assumption, χ^2 tests were made of the differences between first and second, second and third, and first and third-graders. The results appear in Table 13. Only where hypotheses have been formulated are χ^2s presented at the .10 level. The discussion will focus on the results for the total sample.

The two factors on which it was assumed that age changes would demonstrate the most significant attitude or value changes were Factor I, Social Conformity, and Factor VIII, Asocial Behavior. Asocial Behavior items were the more dramatic of these in their changes from grade to grade. With respect to liking for stealing, littering, and sprinkling the man with water, the progression is such that these are significantly better liked by first grade children than second and by second grade children than third. Throwing vegetables at the fence is better liked by first grade children than by second or third grade children. If liking for seeing the girl lose her ice cream is considered asocial (despite the fact that it does not load significantly on Factor VIII), it, also, is better liked by first grade children than second or third.

With respect to items loading on Social Conformity (Factor I), in every case third grade children are higher than first. Second grade children are also higher than first with respect to listening instead of talking in class, staying in bed when sick, not approving of smoking and wanting a fight broken up. Third grade children are even higher in these as well as in choosing duty over play, sleeping when they are supposed to instead of talking, and being low in the tree as opposed to higher up. If the choice of staying and eating one's food rather than leaving the table with it unfinished is classified as conforming, third grade children are also higher than first-graders in making this choice.

When it comes to Factor III, Me First, it was hypothesized that third grade children would be more unselfish and kinder than younger children. This was borne out by the fact that the third grade child is more likely to share his cookie than is the second grade child who, in turn, is more likely to share it than is the first-grader. Third grade children are also more likely to give away the large piece of cake than are first grade children. In addition, the third grade child

Table 13. Grade Differences by Ethnic Group and for the Total Sample with Significance levels for χ^2 s.

Item 1X - Painting

	1&2	2&3	1&3	Summary
M				ns
O				ns
A				ns
N		.05	.02	3 > 2&1
I				ns
T				ns

Item 2X - Mother

	1&2	2&3	1&3	Summary
M		.001	.001	1&2 > 3
O				ns
A			.05	1 > 3
N			.01	1 > 3
I		.01	.001	1&2 > 3
T		.001	.001	1&2 > 3

Item 3X - Ghosts

	1&2	2&3	1&3	Summary
M				ns
O				ns
A				ns
N				ns
I			.05	3 > 1
T				ns

Item 4X - Reading

	1&2	2&3	1&3	Summary
M		.02		3 > 2
O				ns
A				ns
N				ns
I				ns
T	.05		.01	1 > 2&3

Item 5X - Drop Cone

	1&2	2&3	1&3	Summary
M	.01		.05	1 > 2&3
O				ns
A				ns
N	.01		.001	1 > 2&3
I	.01		.01	1 > 2&3
T	.001		.001	1 > 2&3

Item 6X - Brush Teeth

	1&2	2&3	1&3	Summary
M				ns
O		.05	.02	1&2 > 3
A				ns
N		.02	.05	3 > 2&1
I	.02			2 > 1
T				ns

Table 13 (continued)

Item 7X - Soldier

	1&2	2&3	1&3	Summary
M		.02		3 > 2
O				ns
A				ns
N				ns
I				ns
T				ns

Item 8X - Nurse

	1&2	2&3	1&3	Summary
M				ns
O		.05	.001	1&2 > 3
A				ns
N		.05		2 > 3
I			.05	1 > 3
T			.01	1 > 3

Item 9X - Cars

	1&2	2&3	1&3	Summary
M		.001	.01	1&2 > 3
O			.05	1 > 3
A				ns
N	.01			1 > 2
I				ns
T		.01	.001	1&2 > 3

Item 10X - Music

	1&2	2&3	1&3	Summary
M				ns
O				ns
A				ns
N			.05	3 > 1
I				ns
T				ns

Item 11X - Father

	1&2	2&3	1&3	Summary
M		.05	.01	3 > 1&2
O				ns
A				ns
N	.01		.02	1 > 2&3
I				ns
T	.02		.01	1 > 2&3

Item 12X - Boxing

	1&2	2&3	1&3	Summary
M		.01	.01	3 > 1&2
O				ns
A				ns
N				ns
I			.05	3 > 1
T		.01	.01	3 > 1&2

Table 13 (continued)

Item 13X - Throw Veg

	1&2	2&3	1&3	Summary
M	.05	.02		1&2 3
O			.02	1 > 3
A	.01			1 > 2
N			.02	1 > 3
I				ns
T	.001		.001	1 > 2&3

Item 14X - Smelling

	1&2	2&3	1&3	Summary
M		.01	.05	1&2 > 3
O				ns
A			.001	1 > 3
N				ns
I				ns
T		.02	.01	1&2 > 3

Item 15X - Tug-of-War

	1&2	2&3	1&3	Summary
M			.05	3 > 1
O				ns
A				ns
N				ns
I		.01		3 > 2
T		.001	.001	3 > 1&2

Item 16X - Studying

	1&2	2&3	1&3	Summary
M	.05	.001		1 > 2 > 3
O	.01	.02		1 > 2 > 3
A				ns
N				ns
I				ns
T			.001	1 > 3

Item 17X - Stealing

	1&2	2&3	1&3	Summary
M	.001		.10	1 > 2&3
O	.10		.05	1 > 2&3
A		.02	.005	1&2 > 3
N		.001	.05	1&2 > 3
I			.02	1 > 3
T	.01	.01	.001	1 > 2 > 3

Item 18X - Bath

	1&2	2&3	1&3	Summary
M				ns
O			.05	1 > 3
A				ns
N				ns
I			.05	3 > 1
T			.05	3 > 1

Table 13 (continued)

Item 19X - Snake

	1&2	2&3	1&3	Summary
M	.05	.01		1&3 > 2
O				ns
A		.05		2 > 3
N				ns
I				ns
T		.05	.05	1&3 > 2

Item 20X - Church

	1&2	2&3	1&3	Summary
M	.01	.05		2 > 1&3
O				ns
A				ns
N		.05	.01	3 > 2&1
I				ns
T	.05			2 > 1

Item 21X - Police

	1&2	2&3	1&3	Summary
M	.05			1 > 2
O		.02		3 > 2
A	.05		.02	3 > 1 > 2
N				ns
I			.05	1 > 3
T		.05	.10	3 > 1&2

Item 22X - Nature

	1&2	2&3	1&3	Summary
M	.05	.01		2 > 1&3
O				ns
A				ns
N				ns
I				ns
T				ns

Item 23X - Littering

	1&2	2&3	1&3	Summary
M	.001	.001	.001	1 > 2 > 3
O		.02	.001	1&2 > 3
A	.05	.01	.001	1 > 2 > 3
N	.10	.001	.001	1 > 2 > 3
I		.01	.001	1 > 2&3
T	.001	.001	.001	1 > 2 > 3

Item 24X - Doctor

	1&2	2&3	1&3	Summary
M		.02		2 > 3
O				ns
A				ns
N		.02		3 > 2
I		.001	.001	3 > 2 &1
T		.01	.001	3 > 1&2

Table 13 (continued)

Item 25X - Water Man

	1&2	2&3	1&3	Summary
M	.001	.001		1 > 2 > 3
O				ns
A	.10			2 > 1
N				ns
I			.10	1 > 3
T	.02		.01	1 > 2 > 3

Item 26X - Cave

	1&2	2&3	1&3	Summary
M	.05	.01		2 > 1&3
O				ns
A				ns
N				ns
I				ns
T		.05		2 > 3

Item 27X - Classroom

	1&2	2&3	1&3	Summary
M				ns
O				ns
A				ns
N		.05		3 > 2
I				ns
T				ns

Item 28X - Teacher

	1&2	2&3	1&3	Summary
M		.01		2 > 3
O				ns
A				ns
N				ns
I				ns
T				ns

Item 29X - Knife

	1&2	2&3	1&3	Summary
M	.01	.001		1&3 > 2
O				ns
A				ns
N				ns
I			.05	1 > 3
T				ns

Item 30X - Home

	1&2	2&3	1&3	Summary
M				ns
O				ns
A				ns
N				ns
I				ns
T				ns

Table 13 (continued)

Item 1Y - Tree hi

	1&2	2&3	1&3	Summary
M				ns
O				ns
A				ns
N	.05		.05	1 > 2&3
I				ns
T			.01	1 > 3

Item 2Y - Save

	1&2	2&3	1&3	Summary
M				ns
O			.05	3 > 1
A			.02	3 > 1
N			.01	3 > 1
I				ns
T		.05	.001	3 > 1&2

Item 3Y - Play Many

	1&2	2&3	1&3	Summary
M				ns
O				ns
A				ns
N	.05			1 > 2
I				ns
T		.05		3 > 2

Item 4Y - Help Self

	1&2	2&3	1&3	Summary
M				ns
O	.01			2 > 1
A			.01	3 > 1
N		.05	.01	3 > 2&1
I				ns
T	.01		.001	3&2 > 1

Item 5Y - One bed

	1&2	2&3	1&3	Summary
M			.05	1 > 3
O				ns
A				ns
N			.05	1 > 3
I				ns
T			.01	1 > 3

Item 6Y - Tongue out

	1&2	2&3	1&3	Summary
M				ns
O				ns
A				ns
N				ns
I				ns
T				ns

Table 13 (continued)

Item 7Y- Tinker Toy

	1&2	2&3	1&3	Summary
M				ns
O				ns
A				ns
N				ns
I				ns
T				ns

Item 8Y - Hug Father

	1&2	2&3	1&3	Summary
M				ns
O				ns
A				ns
N				ns
I		.05		2 > 3
T			.05	1 > 3

Item 9Y - Separate

	1&2	2&3	1&3	Summary
M				ns
O		.05	.001	3 > 1&2
A				ns
N			.02	3 > 1
I	.01		.02	3 > 1&2
T	.02	.05	.001	3 > 2 > 1

Item 10Y - Not Smoke

	1&2	2&3	1&3	Summary
M	.001		.01	2&3 > 1
O				ns
A				ns
N			.02	3 > 1
I		.01	.01	3 > 2&1
T	.10	.05	.001	3 > 2 > 1

Item 11Y - Duty

	1&2	2&3	1&3	Summary
M			.10	3 > 1
O				ns
A		.10	.10	3 > 2&1
N			.10	3 > 1
I				ns
T			.01	3 > 1

Item 12Y - Complex

	1&2	2&3	1&3	Summary
M				ns
O				ns
A				ns
N				ns
I				ns
T				ns

Table 13 (continued)

Item 13Y - Listen

	1&2	2&3	1&3	Summary
M				ns
O				ns
A	.05		.005	3&2 > 1
N		.10	.01	3 > 2&1
I			.05	3 > 1
T	.01		.01	3&2 > 1

Item 14Y - Eat

	1&2	2&3	1&3	Summary
M				ns
O	.10		.001	2&3 > 1
A				ns
N				ns
I			.10	3 > 1
T			.01	3 > 1

Item 15Y - Truth

	1&2	2&3	1&3	Summary
M				ns
O			.10	3 > 1
A		.05	.001	3 > 2&1
N		.10	.01	3 > 2&1
I			.10	3 > 1
T	.05	.01	.001	3 > 2 > 1

Item 16Y - Present

	1&2	2&3	1&3	Summary
M				ns
O				ns
A				ns
N				ns
I				ns
T				ns

Item 17Y - Milk

	1&2	2&3	1&3	Summary
M				ns
O				ns
A				ns
N				ns
I				ns
T				ns

Item 18Y - Far

	1&2	2&3	1&3	Summary
M				ns
O	.02		.01	3&2 > 1
A		.02	.05	3 > 1&2
N				ns
I				ns
T		.01	.001	3 > 1&2

Table 13 (continued)

Item 19Y - Large

	1&2	2&3	1&3	Summary
M				ns
O			.05	3 > 1
A		.01		3 > 2
N				ns
I				ns
T			.10	3 > 1

Item 20Y - Bed

	1&2	2&3	1&3	Summary
M				ns
O				ns
A			.01	3 > 1
N			.05	3 > 1
I		.05	.05	3 > 2&1
T	.10	.01	.001	3 > 2 > 1

Item 21Y - Talk Many

	1&2	2&3	1&3	Summary
M				ns
O			.01	3 > 1
A				ns
N	.05		.05	1 > 2&3
I				ns
T		.01	.001	3 > 1&2

Item 22Y - Admired

	1&2	2&3	1&3	Summary
M				ns
O	.02		.01	2&3 > 1
A			.05	3 > 1
N			.05	3 > 1
I	.05		.05	3&2 > 1
T		.05	.001	3 > 1&2

Item 23Y - Push

	1&2	2&3	1&3	Summary
M				ns
O			.10	3 > 1
A		.05		3 > 2
N				ns
I				ns
T		.01	.01	3 > 1&2

Item 24Y - Play

	1&2	2&3	1&3	Summary
M				ns
O				ns
A				ns
N				ns
I				ns
T				ns

Table 13 (continued)

Item 25Y - Swing hi

	1&2	2&3	1&3	Summary
M				ns
O				ns
A				ns
N	.05		.02	3&2 > 1
I				ns
T				ns

Item 26Y - First

	1&2	2&3	1&3	Summary
M		.10		3 > 2
O		.001		2 > 3
A			.001	1 > 3
N	.01	.05		2 > 1&3
I				ns
T		.01	.01	1&2 > 3

Item 27Y - Teacher

	1&2	2&3	1&3	Summary
M			.05	3 > 1
O				ns
A			.05	1 > 3
N				ns
I				ns
T				ns

Item 28Y - Share

	1&2	2&3	1&3	Summary
M				ns
O		.10	.01	3 > 1&2
A	.05		.001	3 > 1&2
N		.10		3 > 2
I			.05	3 > 1
T	.02	.01	.001	3 > 2 > 1

Item 29Y - Hug Mother

	1&2	2&3	1&3	Summary
M				ns
O			.01	1 > 3
A				ns
N				ns
I			.05	1 > 3
T		.05	.05	1&2 > 3

Item 30Y - Sleep

	1&2	2&3	1&3	Summary
M				ns
O	.10			2 > 1
A				ns
N			.02	3 > 1
I				ns
T			.01	3 > 1

is more willing to push his friend in the swing than is either the first or second-grader. When it comes to taking the dominant position, the first and second-graders like being first in line more than the third-grader does. There is no age difference with respect to choosing to be the teacher when playing "school" or in choosing to play rather than watch.

Factor V, Adult Closeness, might be expected to favor younger children. The results indicate that in the total sample, first grade children would rather hug their fathers than would third-graders and first-graders would rather hug their mother than would either second or third-graders.

No hypotheses were formulated with respect to Factor IV, Masculinity, and the results conflict. Liking for the soldier and whittling with the knife does not change over the years for the total sample. Liking for boxing and the tug of war seems to increase with age with third grade children liking them better than either first or second grade children. The cave is better liked by second graders than third and the snake is better liked by first and third-graders than second. If liking for ghosts were to be classified here, third grade Indian children like them better than do first grade children. The problem with making generalizations about these items is that in most cases the changes with age were a matter of growing indifference rather than a real change in attitude. In general, first grade children were more extreme in their judgments and third grade children more indifferent.

Aesthetic appreciation (Factor VII) does not seem to change with age in so far as music and nature are concerned although the first and second grade child seems to like smelling flowers better than the third-grader who, in turn, is more indifferent.

The two items loading on Factor VI, Sociability, suggest that the third-grader may be more inclined to choose several friends over one when compared with the second-grader (Play 1/many) or with both first and second grade children (Talk 1/many).

Factor II, Academic/Health is unpredictable. Some investigators have found that children like school less as they get older. No one has investigated their feelings about health habits. Although third-graders like baths better than do first-graders in the total sample, brushing teeth does not differentiate between age groups. The doctor seems to be better liked by the older child (third-grader) than either first or second grade children while the reverse is true of the nurse who is better liked by the first-grader than the third. Father is better liked by the first-grader than by the second or third and Mother, although she does not load on this factor, is better liked by the first and second grade child than by the third. This change is more in the direction of indifference than dislike. The teacher and the classroom do not seem to differentiate between groups but, interestingly, studying is better liked by first-graders than third. Reading (which just misses significance on this factor) is also better liked by first-graders than by either of the older groups. These differences, also, are generated by an increasing indifference.

Of the items not included in the preceding discussion, eight show no change in attitude with age in the total sample: (1) painting; (2) going home; (3) sticking out one's tongue at someone who has done the same; (4) playing with tinker toys; (5) solving a complex puzzle; (6) getting a present instead of money; (7) drinking milk instead of pop; and (8) swinging high as opposed to low in a swing.

Stepping into the street in front of cars is better liked by younger (first and second grade) children than by older (third grade). Police, saving money as opposed to spending it, trying for the far ring toss rather than the near one, and being admired rather than ignored are all better liked by third grade children than either first or second-graders. Tying one's own shoe is better liked by the second and third-grader than by the first, who can be assumed to be more dependent. Sleeping in the same bed with a friend is better liked by the first-grader than the third-grader. When it comes to telling the truth, it is more often chosen by the third-grader than the first. This item probably incorporates elements of both asocial behavior and conformity although it misses significance in the factor analysis.

Thus far the discussion has centered around the total sample of 996 children. The reader will find that those items which differentiate between grade levels for this large sample do not always (or generally) do so for all ethnic groups. In some instances, ethnic groups will be differentiated in directions opposite to one another or to the total. A major problem which will be noted upon closer scrutiny of the Mexican-American group is the unusual nature of that group's second grade children. In several cases, these children were higher or lower than both the first and third grades with respect to given items (e.g., 19X-Snake; 20X-Church). There is no ready explanation for this.

The major generalization which can be made from this grade comparison is that as the child grows older he becomes more conforming and less asocial in his attitudes. At the same time, he becomes more independent of and indifferent to parents and, perhaps, more sociable and concerned with the opinion of his peers (e.g., likes to be admired). Strangely enough, the first grade children did not seem more afraid of things which were supposed to frighten them (ghosts, dark caves, stepping in front of cars) but were, rather, more variable. Older children are more indifferent. There is also some indication that they increase in liking for male adults (policeman; doctor) but not for female adults (nurse). Physical closeness (hugging parents; sleeping in the same bed with a friend) also becomes a matter of decreased value. Increased liking for saving money is another indicator of increasing maturity. Some of these changes seem to occur between first and second grade, but more of them occur between second and third.

Inter-Ethnic Comparisons

Although differences between ethnic groups were to be obtained only by computing t-ratios between means of factor scores, χ^2s were also computed for each item. The inclusion of items which reached only a .10 level of significance is based on the legitimacy of one-tailed

tests based on previous hypotheses on the part of the research staff. The results appear in Table 14. Significance levels are provided above the diagonal. The direction of those differences which are significant is given below the diagonal. As before, direction is determined by the relative value of the mean for each group.

Painting is better liked by Negroes than either Orientals, Anglos, or Indians and is better liked by Anglos than Indians. This is interesting in view of the cultural heritage of artistic work in the Indian group.

Mother is better liked by Mexicans than she is by any other ethnic group and even Negroes like her better than Orientals although Orientals like her better than Indians do.

Ghosts are better liked by both Anglos and Negroes than by Indians, a finding which is not surprising in view of the Indian fear of the supernatural. Negroes also like them better than Orientals do.

Reading is better liked by Mexican-Americans than it is by Orientals, Anglos, or Indians and better by Orientals and Anglos than by Negroes. The fact that the Mexican-American group is not significantly different from the Negro is an artifact of the varying distributions. The Mexican-American mean is the highest; the Negro mean is lowest.

Mexican-Americans and Negroes are both higher in liking for seeing the girl drop her ice cream than are Orientals or Anglos. The same is true for liking to brush teeth and, in addition, the Indians are significantly higher in liking for this activity than are either Orientals or Anglos.

Mexican-Americans, Negroes, and Indians like the soldier better than do either Orientals or Anglos. Negroes like the nurse better than any other group except the Indians, from whom they do not differ significantly.

Response to crossing the street with cars coming is mixed with Orientals liking it less than Mexican-Americans or Indians and both Orientals and Anglos liking it better than Negroes but, in general, it is more a matter of the Anglos and Orientals being more indifferent than the other groups. As in the Reading item, this distribution change made it impossible for the Mexican-American vs Negro difference to attain significance despite the separation in means. The same phenomenon recurs in items 10X (Music) and 17X (Stealing).

Listening to music is liked better by Mexican-Americans than by Orientals and Anglos and by the latter two groups than by Negroes or Indians. Indians like music less than any other group. Mexican-Americans and Indians also like the father better than Orientals and Anglos do.

Mexican-Americans, Indians, and Negroes like boxing better than Orientals or Anglos. Throwing vegetables against a fence is better liked by Mexican-Americans and Negroes than by Orientals or Indians. Anglos also like it better than Indians do.

Table 14. Inter-Ethnic Comparisons of Item Responses with Significance Levels for χ^2s

Item 1X - Painting

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	.001	ns
A			--	.001	.02
N		N>O	N>A	--	.05
I			A>I	N>I	--

Item 2X - Mother

	M	O	A	N	I
M	--	.001	.001	.05	.01
O	M>O	--	ns	.001	.01
A	M>A		--	ns	ns
N	M>N	N>O		--	ns
I	M>I	O>I			--

Item 3X - Ghosts

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	.05	ns
A			--	ns	.05
N		N>O		--	.02
I			A>I	N>I	--

Item 4X - Reading

	M	O	A	N	I
M	--	.001	.001	ns	.05
O	M>O	--	ns	.001	ns
A	M>A		--	.001	.05
N		O>N	A>N	--	ns
I	M>I		I>A		--

Item 5X - Drop Cone

	M	O	A	N	I
M	--	.05	.02	ns	ns
O	M>O	--	ns	.05	ns
A	M>A		--	.05	ns
N		N>O	N>A	--	ns
I					--

Item 6X - Brush Teeth

	M	O	A	N	I
M	--	.05	.001	ns	ns
O	M>O	--	ns	.02	.02
A	M>A		--	.01	.001
N		N>O	N>A	--	ns
I		I>O	I>A		--

Table 14 (continued)

Item 7X - Soldier

	M	O	A	N	I
M	--	.005	.01	ns	ns
O	M>O	--	ns	.10	.05
A	M>A		--	.01	.01
N		N>O	N>A	--	ns
I		I>O	I>A		--

Item 8X - Nurse

	M	O	A	N	I
M	--	ns	ns	.10	ns
O		--	ns	.01	ns
A			--	.02	ns
N	N>M	N>O	N>A	--	ns
I					--

Item 9X - Cars

	M	O	A	N	I
M	--	.01	.01	ns	ns
O	M>O	--	ns	.01	.01
A	M>A		--	.01	.10
N		O>N	A>N	--	ns
I		I>O	I>A		--

Item 10X - Music

	M	O	A	N	I
M	--	.10	.05	ns	.001
O	M>O	--	ns	.01	.01
A	M>A		--	.01	.02
N		O>N	A>N	--	.01
I	M>I	O>I	A>I	N>I	--

Item 11X - Father

	M	O	A	N	I
M	--	.01	.02	ns	ns
O	M>O	--	ns	ns	.01
A	M>A		--	ns	.01
N				--	ns
I		I>O	I>A		--

Item 12X - Boxing

	M	O	A	N	I
M	--	.005	.02	ns	ns
O	M>O	--	ns	.001	.05
A	M>A		--	.01	.05
N		N>O	N>A	--	ns
I		I>O	I>A		--

Table 14 (continued)

Item 13X - Throw

	M	O	A	N	I
M	--	.10	ns	ns	.05
O	M>O	--	ns	.01	ns
A			--		.05
N		N>O		--	.001
I	M>I		A>I	N>I	--

Item 14X - Smelling

	M	O	A	N	I
M	--	ns	.02	ns	ns
O		--	ns	.10	ns
A	M>A		--	.02	ns
N		N>O	N>A	--	ns
I					--

Item 15X - Tug-of-War

	M	O	A	N	I
M	--	.001	.001	ns	ns
O	O>M	--	ns	.01	.05
A	A>M		--	.001	.05
N		O>N	A>N	--	ns
I		O>I	A>I		--

Item 16X - Studying

	M	O	A	N	I
M	--	.001	.001	ns	.10
O	M>O	--	ns	.001	.001
A	M>A		--	.01	.001
N		N>O	N>A	--	ns
I	M>I	I>O	I>A		--

Item 17X - Stealing

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	.05
A			--	ns	.05
N				--	.01
I		I>O	I>A	N>I	--

Item 18X - Bath

	M	O	A	N	I
M	--	.001	.001	ns	ns
O	M>O	--	ns	.001	.001
A	M>A		--	.001	.001
N		N>O	N>A	--	ns
I		I>O	I>A		--

Table 14 (continued)

Item 19X - Snake

	M	O	A	N	I
M	--	ns	ns	.02	ns
O		--	ns	.001	ns
A			--	.01	ns
N	N>M	N>O	N>A	--	.05
I				N>I	--

Item 20X - Church

	M	O	A	N	I
M	--	.001	.001	.02	ns
O	M>O	--	.10	.001	.001
A	M>A	A>O	--	.01	.01
N	M>N	N>O	N>A	--	.05
I		I>O	I>A	I>N	--

Item 21X - Police

	M	O	A	N	I
M	--	.01	.10	ns	ns
O	O>M	--	ns	ns	.10
A	A>M		--	ns	ns
N				--	ns
I		O>I			--

Item 22X - Nature

	M	O	A	N	I
M	--	.02	.01	ns	.01
O	M>O	--	ns	.05	ns
A	M>A		--	.02	ns
N		N>O	N>A	--	.02
I	M>I			N>I	--

Item 23X - Littering

	M	O	A	N	I
M	--	.001	.01	ns	ns
O	M>O	--	.10	.001	.01
A	M>A	A>O	--	.001	ns
N		N>O	N>A	--	.01
I		I>O		N>I	--

Item 24X - Doctor

	M	O	A	N	I
M	--	.001	.001	.05	.10
O	O>M	--	ns	.01	ns
A	A>M		--	.05	ns
N	N>M	N>O	N>A	--	ns
I	I>M				ns

Table 14 (continued)

Item 25X - Water Man

	M	O	A	N	I
M	--	.001	ns	ns	.02
O	M>O	--	.001	.001	.001
A		A>O	--	ns	.02
N		N>O		--	ns
I	M>I	I>O	I>A		--

Item 26X - Cave

	M	O	A	N	I
M	--	.001	.001	ns	.001
O	M>O	--	.01	.01	.001
A	M>A	A>O	--	.01	.05
N		N>O	A>N	--	.001
I	I>M	I>O	I>A	I>N	--

Item 27X - Classroom

	M	O	A	N	I
M	--	.001	.05	ns	.10
O	O>M	--	.001	.001	.001
A	M>A	O>A	--	.05	ns
N		O>N	N>A	--	ns
I	M>I	O>I			--

Item 28X - Teacher

	M	O	A	N	I
M	--	.001	.02	ns	.05
O	O>M	--	ns	.001	.01
A	M>A		--	.001	.02
N		O>N	N>A	--	.10
I	M>I	O>I	I>A	N>I	--

Item 29X - Knife

	M	O	A	N	I
M	--	.05	.01	.10	ns
O	O>M	--	ns	.05	ns
A	A>M		--	ns	.10
N	N>M	N>O		--	.01
I			A>I	N>I	--

Item 30X - Home

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	.05	.001
A			--	ns	ns
N		O>N		--	ns
I		O>I			--

Table 14 (continued)

Item 1Y - Tree-hi

	M	O	A	N	I
M	--	.001	ns	.001	ns
O	M>O	--	.001	ns	ns
A		A>O	--	.001	ns
N	M>N		A>N	--	.02
I				I>N	--

Item 2Y - Save

	M	O	A	N	I
M	--	ns	ns	ns	.05
O		--	ns	ns	ns
A			--	ns	ns
N				--	.10
I	M>I			N>I	--

Item 3Y - Play/many

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 4Y - Help self

	M	O	A	N	I
M	--	.10	ns	ns	ns
O	O>M	--	ns	.02	ns
A			--	.10	ns
N		O>N	A>N	--	.10
I				I>N	--

Item 5Y - One bed

	M	O	A	N	I
M	--	.001	.001	ns	ns
O	O>M	--	ns	.001	.001
A	A>M		--	.001	.001
N		O>N	A>N	--	ns
I		O>I	A>I		--

Item 6Y - Ignore

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Table 14 (continued)

Item 7Y - Tinker toy

	M	O	A	N	I
M	--	ns	ns	.05	.10
O		--	ns	.01	ns
A			--	ns	ns
N	M>N	O>N		--	ns
I	M>I				--

Item 8Y - Hug Father

	M	O	A	N	I
M	--	ns	.02	ns	ns
O	ns	--	.05	ns	ns
A	A>M	A>O	--	.10	.02
N			A>N	--	ns
I			A>I		--

Item 9Y - Separate

	M	O	A	N	I
M	--	.001	.001	ns	ns
O	O>M	--	ns	.001	.001
A	A>M		--	.001	.001
N		O>N	A>N	--	ns
I		O>I	A>N		--

Item 10Y - Not smoke

	M	O	A	N	I
M	--	.001	.001	ns	ns
O	O>M	--	ns	.001	.001
A	A>M		--	.001	.001
N		O>N	A>N	--	.01
I		O>I	A>I	N>I	--

Item 11Y - Duty

	M	O	A	N	I
M	--	.001	ns	ns	ns
O	O>M	--	.02	.001	.01
A		O>A	--	ns	ns
N		O>N		--	ns
I		O>I			--

Item 12Y - Complex

	M	O	A	N	I
M	--	.05	.05	.10	ns
O	M>O	--	ns	.01	ns
A	M>A		--	.05	ns
N	N>M	N>O	N>A	--	ns
I					--

Table 14 (continued)

Item 13Y - Listen

	M	O	A	N	I
M	--	.001	.05	ns	ns
O	O>M	--	.02	.001	.001
A	A>M	O>A	--	.02	ns
N		O>N	A>N	--	ns
I		O>I			--

Item 14Y - Eat

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 15Y - Truth

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 16Y - Present

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 17Y - Milk

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 18Y - Far

	M	O	A	N	I
M	--	ns	ns	ns	.001
O		--	ns	ns	.02
A			--	ns	.05
N				--	.05
I	I>M	I>O	I>A	I>N	--

Table 14 (continued)

Item 19Y - Large

	M	O	A	N	I
M	--	.10	.02	ns	ns
O	O>M	--	ns	.01	ns
A	A>M	A>O	--	.001	ns
N		O>N	A>N	--	.01
I				I>N	--

Item 20Y - Bed

	M	O	A	N	I
M	--	.001	.02	ns	ns
O	O>M	--	ns	.001	.01
A	A>M		--	.05	.05
N		O>N	A>N	--	ns
I		O>I	A>I		--

Item 21Y - Talk/many

	M	O	A	N	I
M	--	ns	ns	ns	.02
O		--	ns	.10	.02
A			--	ns	.05
N		O>N		--	ns
I	M>I	O>I	A>I		--

Item 22Y - Admired

	M	O	A	N	I
M	--	.05	ns	ns	ns
O	O>M	--	ns	.001	.01
A			--	.05	ns
N		O>N	A>N	--	ns
I		O>I			--

Item 23Y - Push

	M	O	A	N	I
M	--	ns	ns	ns	.01
O		--	ns	ns	.10
A			--	ns	ns
N				--	.05
I	I>M	I>O		I>N	--

Item 24Y - Play

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Table 14 (continued)

Item 25Y - Swing hi

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 26Y - First

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 27Y - Teacher

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 28Y - Share

	M	O	A	N	I
M	--	.01	ns	ns	.10
O	O>M	--	ns	.01	ns
A			--	.10	ns
N		O>N	A>N	--	.05
I	I>M			I>N	--

Item 29Y - Hug Mother

	M	O	A	N	I
M	--	.01	ns	ns	.001
O	M>O	--	ns	ns	.01
A			--	ns	.01
N				--	.01
I	M>I	O>I	A>I	N>I	--

Item 30Y - Sleep

	M	O	A	N	I
M	--	.01	ns	ns	ns
O	O>M	--	.01	.01	ns
A		O>A	--	ns	ns
N		O>N		--	ns
I					--

Anglos like smelling flowers less than Mexican-Americans or Negroes and Negroes also like it better than Orientals. The tug-of-war is better liked by Orientals and Anglos than it is by Mexican-Americans, Negroes, or Indians.

Studying is better liked by Mexican-Americans, Negroes, and Indians than by Orientals and Anglos.

Stealing differentiates only Indians who like it less than Negroes but more than Orientals or Anglos. Mexican-Americans, Negroes, and Indians like to take baths more than Anglos or Orientals do.

Negroes like snakes better than any other group and there are no differences between the other groups. Going to church is preferred by Mexican-Americans and Indians over Anglos, Orientals, and Negroes but even Negroes and Anglos like it better than Orientals. It should be noted that most Mexican-Americans and many Indians in these samples are Catholic. The policeman is better liked by Orientals and Anglos than by Mexican-Americans and better by Orientals than by Indians.

Nature is best liked by Mexican-Americans and Negroes who are higher in this value than are Orientals, Anglos, or Indians. Littering seems least liked by Orientals who are lower on this value than any group. Anglos like it less than Mexican-Americans and Negroes do. Negroes like it better than Indians.

The doctor is least liked by Mexican-Americans and best liked by Negroes. Watering the man with the hose gets less approval from Orientals than any other group and although Mexican-Americans like it better than Indians, Indians like it better than Anglos.

Going into the dark cave is best liked by Indians who are significantly more positive toward it than is any other group. Orientals dislike it more than any other group. The classroom is best liked by Orientals who are significantly higher in this value than all other groups. However, it is interesting to note that Mexican-Americans and Negroes like it better than Anglos do and Indians like it less than Mexican-Americans.

The teacher receives the most positive response from Orientals but Mexican-Americans, Negroes, and Indians like her better than Anglos do and Negroes like her better than Indians. Ranking in this value is: Oriental first, followed by Negro and Mexican-American, Indian, and Anglo last.

Using the knife to whittle finds most favor with Negroes and second most from Anglos who rate it higher than do Mexican-Americans or Indians. Orientals like to go home better than Negroes or Indians do which is not surprising in view of the types of homes each group can be expected to live in.

When it comes to climbing high in the tree, Mexican-Americans and Anglos like it better than Orientals or Negroes and Negroes like it less than Indians. Saving money shows only two significant differences:

Mexican-Americans and Negroes like it better than Indians. Playing with many friends does not differentiate between groups. Tying one's own shoe rather than having mother help is more characteristic of Orientals than of Mexican-Americans or Negroes and also less characteristic of Negroes than Anglos or Indians. If this is a measure of independence, the Negro group is low in it.

Orientals and Anglos like sleeping in one bed with a friend more than do Mexican-Americans, Negroes, or Indians. This may be because for these two groups, sleeping together is "fun" whereas for the groups which live closer to a poverty level, it is a necessity. Sticking out the tongue does not differentiate. Mexican-Americans like tinker toys better than Negroes or Indians and Orientals like them better than Negroes. Hugging father is better liked by Anglos than any other group.

Having a fight interfered with is liked less by Mexican-Americans, Negroes, and Indians than it is by Orientals or Anglos. Smoking is disliked more by Orientals and Anglos than it is by Negroes, Mexican-Americans, or Indians and more by Negroes than Indians. Doing one's duty rather than playing is preferred by Orientals more than by any other ethnic group. The complex puzzle seems most liked by Negroes and Mexican-Americans who are significantly higher in this respect than Orientals or Anglos.

Listening in class is more often chosen by Orientals than any other group and by Anglos than either Mexican-Americans or Negroes. Eating rather than leaving the table does not differentiate. Truth-telling, the choice of the present over money, and preference for milk rather than pop do not differentiate between any of the ethnic groups. The far ring toss is chosen more often by Indians than any other ethnic group.

Giving the large piece of cake to a friend rather than the small one is typical of Orientals and Anglos when compared with Mexican-Americans or Negroes. It is also more characteristic of Indians than Negroes and of Anglos than Orientals. Anglos seem the most unselfish and Negroes the least. Staying in bed when sick is something that Orientals choose more often than any other group and Anglos choose more often than Mexican-Americans, Negroes, or Indians. Talking to many friends is least characteristic of Indians who choose it less often than any group except Negroes. Orientals choose many friends more often than Negroes do. Being admired is desirable to Orientals who surpass all but Anglos. Anglos, in turn, more often want to be admired than do Negroes. Pushing someone else in the swing rather than being pushed finds Indians significantly more inclined to do so than are Mexican-Americans, Orientals, or Negroes. Playing rather than watching others play, swinging high, and playing "teacher" do not differentiate between groups. No group wants to be first in line more than any other. Sharing one's only cookie is more often chosen by Orientals, Anglos, and Indians than by Negroes. Hugging mother is liked better by all groups than by Indians. Mexican-Americans also like it better than Orientals. Sleeping when one is supposed to, rather than talking, is more positively responded to by Orientals than by Mexican-Americans, Anglos, or Negroes.

Looking at these results in a general way, it is almost possible to see commonalities in the values of Mexican-Americans and Negroes which differentiate them from Anglos and Orientals. Indians are more difficult to identify since they have some values in common with each of the other groups.

One of the surprising findings has to do with the fondness of Mexican-American and Negro children for Academic/Health activities. When compared with Anglos, these two groups are clearly higher. Orientals are highest only in liking for the classroom and the teacher. Mexican-Americans come out above all other groups in liking for reading, studying, brushing teeth, and church. On the other hand, they are lowest in liking for the doctor. Negroes join Mexican-Americans and Indians in liking for the bath and are top in liking for doctor and nurse. Mexican-Americans are also highest in liking for father, which loads on this factor. Negroes come second in liking for studying and brushing teeth. Mexican-Americans are also high in their liking for complex puzzles and tinker toys. Negroes are even higher than Mexican-Americans in choosing the complex puzzle. In almost all these characteristics, Anglos are lower than any group except Orientals who sometimes share low ranking.

When it comes to Social Conformity and Asocial Behavior, the picture reverses itself. Orientals are significantly ahead of all other groups in listening in class, doing their duty, and sleeping when they are supposed to. Anglos come second. Orientals and Anglos, combined, are higher than the other three groups in disapproving of smoking and staying in bed when sick, and lower in approving of a fight being uninterrupted. Littering, throwing vegetables, and dropping the ice cream cone are better liked by Mexican-Americans and Negroes than by the other three groups. Stealing may be more favored by Indians than Anglos or Orientals and more by Negroes than Indians but, as mentioned before, the Negro-Anglo and Negro-Oriental differences do not reach significance because of distribution peculiarities.

If attitudes toward parents are grouped, it is found that Mexican-Americans like mother and father better than any other group does and are more inclined to hug their mother. The only group that significantly hugs father is the Anglo, perhaps because it is more culturally acceptable.

The results of examining Me First are interesting. Playing as opposed to watching, being first in line, and playing "Teacher" do not differentiate. When it comes to sharing or offering a larger piece of cake, Negroes are at the bottom and either Orientals or Anglos are most generous, although Indians also are higher than Negroes. Indians are the only group to want to push their friend in the swing rather than swing themselves and this differentiates them from all but Anglos.

Sociability makes no difference with respect to playing with others but when it comes to talking to others, Indians are the least likely to want many friends and Orientals the most likely.

Aesthetics finds Mexican-Americans and Negroes at the top with respect to smelling, music, and nature enjoyment and Indians at the bottom.

Masculinity finds Mexican-Americans and Negroes higher than other groups on most items although when it comes to the tug-of-war, an item presumably measuring competition, Orientals and Anglos are significantly higher than other groups. Indians are highest only in liking for dark caves but are most afraid of ghosts.

One might speculate from these findings that the Mexican-American and Negro groups are caught in a state of value conflict where they value all the things that go with academic success but, at the same time, value things which are contrary to achievement in schools where the predominant culture is Anglo. On the other hand, Orientals and Anglos are more indifferent to things related to academic success but are, in general, conforming to the values of the larger culture. This is particularly true of the Orientals. The implications of this for education are obvious. Either the child must "unlearn" values which prevent him from achieving success or the system must change to capitalize upon these values and channel them in appropriate directions.

Lest the reader has gotten the impression that Mexican-Americans and Negroes are non-conforming and asocial, this should be corrected. A glance at the percentages choosing each response to every item in Appendix E will clearly indicate that they disapprove of those things which society expects one to disapprove of. It is only that they do not disapprove as much as do Orientals and Anglos. Indians are somewhat difficult to characterize and certainly not as "different" from other children as we had initially thought

Variability Comparisons

In Chapter I we discussed differences in variability as related to the choice of extreme or moderate positions on affective scales. Each item in the X booklet provides four possible response alternatives. To the extent that one group (ethnic, age, or sex) tends to vary responses along the scale, results of analyses are affected. When two choices of response are provided, as in the Y booklet, some groups will tend to be more homogeneous with respect to their responses (i.e., make the same choice) whereas others will vary more. This, however, will not affect χ^2 inter-group comparisons.

A review of the literature suggested that males might be more conservative in affective value judgments than females (Maccoby, 1966) and that variability might decrease as grade level increases (Piers & Harris, 1969). Studies by Zax, Gardiner and Lowy (1964) and Light, Zax and Gardiner (1965) have led to and tested the hypothesis that a tendency to respond in an extreme manner is a function of the developmental level of the respondent. The studies cited would suggest that girls will be more variable than boys and that the older the child, the less variable his responses. The only information on cultural differences comes from Zax and Takahashi (1967) who found Japanese children, age 12,

much less variable in their responses than American children of the same age. Thus, it might be expected that Orientals in this culture may have the same tendency. It was also guessed at the outset that Indian children might be relatively impassive and thus less variable.

Sex Comparisons

To test the hypothesis that girls are more variable than boys, homogeneity of variance F-ratios were computed for the differences between the two sexes. In this, as in subsequent F-tests, the direction of the difference is expressed in terms of the higher standard deviation. F ratios at $p < .05$ are given. The results appear in Table 15. The hypothesis is completely refuted. Boys exceed girls in variability on 38 of the 60 items (63 percent) whereas girls are more variable on only seven (12 percent).

Grade Comparisons

The grade comparisons are shown in Table 16. They are all, with the exception of one reversal on item 14-X (Smelling), in the expected direction. However, there are not as many significant differences as might be expected. The items on which children become less variable fall primarily into two categories: Social Conformity and Aesthetics. In the former case, the third (and sometimes second) grade child becomes more uniform in disapproval of non-conforming behavior (as seen in the item analysis by grades). In the latter, the older child probably becomes more indifferent to the activities involved in aesthetic appreciation. There is also increasing indifference to some Masculinity items (e.g., Snake; Cars).

Ethnic Group Comparisons

Table 17 provides ethnic group differences in variability with the probability level appearing above the diagonal and the direction of greater variability indicated below the diagonal. In order that the reader may more easily grasp the relative magnitude of the differences between groups with respect to variability, Table 18 provides a summary for all items. For each comparison, the number of significant F-ratios in which Group 1 exceeded Group 2 in variability is summed by ethnic group. For example, where the Mexican-American is Group 1 and the Oriental, Group 2, there are 23 items for which the F-ratio is significant. Of these, 20 show higher variability for Group 1 (Mexican-American) than Oriental. When all comparisons in which the Mexican-American group is involved are summed, there are 43 significant differences and for 32 of these the Mexican-American has the higher variability. Consequently, in 74 percent of their significant comparisons, Mexican-Americans are higher in variability than the comparison groups.

In summary, the Negro is highest in variability with 97 percent of his differences being in his favor; the Indian is second with 77 percent; the Mexican-American is a close third with 74 percent; the Anglo is much lower with 20 percent; and the Oriental is lowest with only 10 percent. This last finding conforms the hypothesis that Orientals are more conservative and homogeneous in their responses than other groups but it emphatically refutes the idea that Indians show the same characteristic. With respect to variability, as with respect to many other characteristics,

Table 15. Sex Differences in Variability of Responses for Total Sample with Significance Levels of F

Item		B vs G	p	Item		B vs G	p
1X	Painting	B > G	.000	1Y	Tree hi/lo	G > B	.000
2X	Mother	B > G	.000	2Y	Save/spend		
3X	Ghosts	B > G	.000	3Y	Play 1/many		
4X	Reading	B > G	.000	4Y	Help/self	B > G	.000
5X	Drop cone	B > G	.000	5Y	2 beds/1 bed		
6X	Brush teeth	G > B	.000	6Y	Ignore/tongue	B > G	.000
7X	Soldier	B > G	.000	7Y	Tinker/blocks	G > B	.000
8X	Nurse	B > G	.000	8Y	Pat/hug-Father	B > G	.000
9X	Cars	G > B	.000	9Y	Fight/separate	B > G	.000
10X	Music	B > G	.000	10Y	Smoke/not	B > G	.000
11X	Father	B > G	.000	11Y	Duty/play	B > G	.000
12X	Boxing			12Y	Easy/complex		
13X	Throw			13Y	Listen/talk	B > G	.000
14X	Smelling	B > G	.000	14Y	Eat/leave	B > G	.000
15X	Tug-of-war	B > G	.000	15Y	Truth/lie		
16X	Studying	B > G	.000	16Y	Money/present	B > G	.000
17X	Stealing	B > G	.000	17Y	Milk/pop		
18X	Bath	B > G	.000	18Y	Near/far		
19X	Snake	B > G	.000	19Y	Large/small	B > G	.000
20X	Church	B > G	.000	20Y	Bed/up	B > G	.000
21X	Police	B > G	.000	21Y	Talk 1/many	B > G	.000
22X	Nature	B > G	.000	22Y	Admired/not	B > G	.000
23X	Littering	B > G	.000	23Y	Push/swing		
24X	Doctor			24Y	Watch/play	G > B	.000
25X	Water man			25Y	Swing hi/lo	G > B	.000
26X	Cave	B > G	.000	26Y	1st/3rd		
27X	Classroom	B > G	.000	27Y	Student/teacher		
28X	Teacher	B > G	.000	28Y	Eat/share		
29X	Knife	G > B	.000	29Y	Hug/pat-Mother	B > G	.000
30X	Home	B > G	.000	30Y	Sleep/talk	B > G	.000

Table 16. Grade Differences in Variability of Responses for Total Sample with Significance Levels of F.

Item		1 vs 2	p	2 vs 3	p	1 vs 3	p	Summary
1X	Painting			2 > 3	.000	1 > 3	.000	1 & 2 > 3
2X	Mother							
3X	Ghosts							
4X	Reading							
5X	Drop cone	1 > 2	.000			1 > 3	.000	1 > 2 & 3
6X	Brush teeth							
7X	Soldier							
8X	Nurse							
9X	Cars					1 > 3	.022	1 > 3
10X	Music	1 > 2	.001			1 > 3	.000	1 > 2 & 3
11X	Father							
12X	Boxing							
13X	Throw							
14X	Smelling	1 > 2	.008	3 > 2	.006			1 & 3 > 2
15X	Tug-of-war							
16X	Studying							
17X	Stealing			2 > 3	.015	1 > 3	.017	1 & 2 > 3
18X	Bath							
19X	Snake					1 > 3	.038	1 > 3
20X	Church							
21X	Police							
22X	Nature							
23X	Littering			2 > 3	.003	1 > 3	.000	1 & 2 > 3
24X	Doctor			2 > 3	.054	1 > 3	.012	1 & 2 > 3
25X	Water man					1 > 3	.006	1 > 3
26X	Cave							
27X	Classroom							
28X	Teacher							
29X	Knife							
30X	Home							

Table 16 (continued)

Item		1 vs 2	p	2 vs 3	p	1 vs 3	p	Summary
1Y	Tree hi/lo							
2Y	Save/spend							
3Y	Play 1/many							
4Y	Help/self					1> 3	.007	1> 3
5Y	2 beds / 1 bed							
6Y	Ignore/tongue							
7Y	Tinker/blocks							
8Y	Pat/hug-Father							
9Y	Fight/separate					1> 3	.024	1> 3
10Y	Smoke/not	1> 2	.030	2> 3	.001	1> 3	.000	1> 2 > 3
11Y	Duty/play					1> 3	.017	1> 3
12Y	Easy/complex							
13Y	Listen/talk	1> 2	.007	2> 3	.020	1> 3	.000	1> 2 > 3
14Y	Eat/leave							
15Y	Truth/lie					1> 3	.054	1> 3
16Y	Money/present							
17Y	Milk/pop							
18Y	Near/far							
19Y	Large/small							
20Y	Bed/up			2> 3	.001	1> 3	.000	1 & 2 > 3
21Y	Talk 1/many							
22Y	Admired/not					1> 3	.006	1> 3
23Y	Push/swing							
24Y	Watch/play							
25Y	Swing hi/lo							
26Y	1st/3rd							
27Y	Student/teacher							
28Y	Eat/share							
29Y	Hug/pat-Mother							
30Y	Sleep/talk							

Table 17. Ethnic Group Differences in Variability of Responses with Significance Levels of F

Item 1X - Painting

	M	O	A	N	I
M	--	ns	.000	.000	.000
O		--	.000	.000	.000
A	M>A	O>A	--	.000	.000
N	N>M	N>O	N>A	--	ns
I	I>M	I>O	I>A		--

Item 2X - Mother

	M	O	A	N	I
M	--	.020	ns	ns	ns
O	M>O	--	ns	.005	.004
A			--	ns	ns
N		N>O		--	ns
I		I>O			--

Item 3X - Ghosts

	M	O	A	N	I
M	--				
O		--			
A			--		
N				--	.042
I				N>I	--

Item 4X - Reading

	M	O	A	N	I
M	--	.024	.010		
O	M>O	--		.032	
A	M>A		--	.012	
N		N>O	N>A	--	
I					--

Item 5X - Drop Cone

	M	O	A	N	I
M	--	.000	.001	ns	.013
O	M>O	--		.000	.035
A	M>A		--	.004	ns
N		N>O	N>A	--	.049
I					--

Item 6X - Brush Teeth

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Table 17 (continued)

Item 7X - Soldier

	M	O	A	N	I
M	--	ns	.038	ns	ns
O		--	ns	ns	ns
A	M>A		--		ns
N				--	
I					--

Item 8X - Nurse

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 9X - Cars

	M	O	A	N	I
M	--	.049	ns	ns	ns
O	M>O	--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 10X - Music

	M	O	A	N	I
M	--	.032	ns	.005	.000
O	M>O	--	ns	.000	.000
A			--	.000	.000
N	N>M	N>O	N>A	--	ns
I	I>M	I>O	I>A		--

Item 11X - Father

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 12X - Boxing

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Table 17 (continued)

Item 13X - Throw

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 14X - Smelling

	M	O	A	N	I
M	--	.037	ns	ns	.050
O	O>M	--	ns	ns	ns
A			--	ns	ns
N				--	ns
I	I>M				--

Item 15X - Tug-of-War

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 16X - Studying

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 17X - Stealing

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 18X - Bath

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Table 17 (continued)

Item 19X - Snake

	M	O	A	N	I
M	--	.049	ns	.022	ns
O	M>O	--	ns	.000	ns
A			--	.014	ns
N	N>M	N>O	N>A	--	.010
I				N>I	--

Item 20X - Church

	M	O	A	N	I
M	--	.000	.000	.000	ns
O	O>M	--	ns	ns	.000
A	A>M		--	ns	.001
N	N>M			--	.001
I		O>I	A>I	N>I	--

Item 21X - Police

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 22X - Nature

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 23X - Littering

	M	O	A	N	I
M	--	.000	ns	ns	ns
O	M>O	--	.035	.000	.010
A		A>O	--	.032	ns
N		N>O	N>A	--	ns
I		I>O			--

Item 24X - Doctor

	M	O	A	N	I
M	--	.002	.046	ns	ns
O	M>O	--	ns	ns	ns
A	M>A		--	ns	ns
N				--	ns
I					--

Table 17 (continued)

Item 25X - Water Man

	M	O	A	N	I
M	--	.000	ns	ns	ns
O	M>O	--	.000	.000	.000
A		A>O	--	ns	ns
N		N>O		--	ns
I		I>O			--

Item 26X - Cave

	M	O	A	N	I
M	--	.001	.039	ns	ns
O	M>O	--		.012	.019
A	M>A		--	ns	ns
N		M>O		--	ns
I		I>O			--

Item 27X - Classroom

	M	O	A	N	I
M	--	.007	ns	ns	.034
O	M>O	--	.000	.000	.000
A		A>O	--		ns
N		N>O		-	ns
I	I M	I>O			--

Item 28X - Teacher

	M	O	A	N	I
M	--	.010	ns	ns	ns
O	M>O	--		.001	.017
A			--	ns	ns
N		N>O		--	ns
I		I>O			--

Item 29X - Knife

	M	O	A	N	I
M	--	ns	.028	ns	ns
O		--	ns	ns	ns
A	M>A		--	ns	ns
N				--	ns
I					--

Item 30X - Home

	M	O	A	N	I
M	. .	.044	ns	ns	ns
O	M>O	--	ns	.001	.000
A			--		.043
N		N>O		--	ns
I		I>O	I>A		--

Table 17 (continued)

Item 1Y - Tree-hi

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 2Y - Save

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 3Y - Play/Many

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 4Y - Help self

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 5Y - One Bed

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 6Y - Ignore

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Table 17 (continued)

Item 7Y - Tinker Toy

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 8Y - Hug Father

	M	O	A	N	I
M	--	ns	.038	ns	ns
O		--	.026	ns	ns
A	M>A	O>A	--	.045	.015
N			N>A	--	ns
I			I>A		--

Item 9Y - Separate

	M	O	A	N	I
M	--	.001	.002	ns	ns
O	M>O	--		.001	.001
A	M>A		--	.001	.001
N		N>O	N>A	--	ns
I		I>O	I>A		--

Item 10Y - Not Smoke

	M	O	A	N	I
M	--	.000	.000	ns	ns
O	M>O	--	ns	.000	.000
A	M>A		--	.000	.000
N		N>O	N>A	--	.026
I		I>O	I>A	I>N	--

Item 11Y - Duty

	M	O	A	N	I
M	--	.000	ns	ns	ns
O	M>O	--	.044	.000	.003
A		A>O	--	ns	ns
N		N>O		--	ns
I		I>O			--

Item 12Y - Complex

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Table 17 (continued)

Item 13Y - Listen

	M	O	A	N	I
M	--	.000	.016	ns	ns
O	M>O	--	.000	.000	.000
A	M>A	A>O	--	.009	ns
N		N>O	N>A	--	ns
I		I>O			--

Item 14Y - Eat

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 15Y - Truth

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 16Y - Present

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 17Y - Milk

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 18Y - Far

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Table 17 (continued)

Item 19Y - Large

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 20Y - Bed

	M	O	A	N	I
M	--	.000	.006	ns	ns
O	M>O	--		.000	.002
A	M>A		--	.011	ns
N		N>O	N>A	--	ns
I		I>O			--

Item 21Y - Talk/Many

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 22Y - Admired

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	.036	ns
A			--	ns	ns
N		N>O		--	ns
I					--

Item 23Y - Push

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 24Y - Play

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Table 17 (continued)

Item 25Y - Swing hi

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 26Y - First

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 27Y - Teacher

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 28Y - Share

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 29Y - Hug Mother

	M	O	A	N	I
M	--	.039	ns	ns	ns
O	O>M	--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Item 30Y - Sleep

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	ns	ns	ns
A			--	ns	ns
N				--	ns
I					--

Table 18. Ethnic Group Comparisons with Respect to Percentage of Significant F Ratios in which Each Group Exceeds all Others

Group 1	Group 2	No. Significant F's.		No. 1 > 2	%
Mexican	Oriental	23		20	
Mexican	Anglo	12		11	
Mexican	Negro	4		0	
Mexican	Indian	4		1	
	Sub Total		43	32	74%
Oriental	Mexican	23		3	
Oriental	Anglo	7		2	
Oriental	Negro	17		0	
Oriental	Indian	16		1	
	Sub Total		63		10%
Anglo	Mexican	12		1	
Anglo	Oriental	7		5	
Anglo	Negro	10		0	
Anglo	Indian	6		1	
	Sub Total		35		20%
Negro	Mexican	4		4	
Negro	Oriental	17		17	
Negro	Anglo	10	1	10	
Negro	Indian	5		4	
	Sub Total		36	35	97%
Indian	Mexican	4		3	
Indian	Oriental	16		15	
Indian	Anglo	6		5	
Indian	Negro	5		1	
	Sub Total		31	24	77%

the Anglo and Oriental are set apart from the Negro, Mexican-American, and Indian.

Factor Score Comparisons

The final comparisons for sex, grade level, and ethnic group were made by computing t-ratios for the differences between means on each of the factors. Factor scores are based, of course, on all items. Those loading highest contribute the greatest weight to the result.

Sex Comparisons

Table 19, below provides the results of the comparison between boys and girls with respect to factor scores on the eight major factors.

Table 19. Factor Score Comparisons by Sex

Factor		Significance Level of t	Direction
I	Social Conformity	.000	G > B
II	Academic/Health	.000	G > B
III	Me First	.003	B > G
IV	Masculinity	.000	B > G
V	Adult Closeness	.000	G > B
VI	Sociability	.000	G > B
VII	Aesthetic	.000	G > B
VIII	Asocial Behavior	n.s.	

The results of the factor score comparisons are consistent with those of the item analyses and clearly confirm the conclusions drawn from inspection of sex differences in item responses. Girls "score" higher in Social Conformity, Adult Closeness, Aesthetics, and Sociability. Boys "score" higher in Masculinity and Me First (aggressive dominance and selfishness). The difference between the sexes in Asocial Behavior (approval of asocial or amoral acts) is not significant.

Grade Comparisons

Table 20 presents the results of factor score comparisons with respect to grade differences. These are, in general, consistent with findings from item analyses.

The major changes, as previously found, are in the direction of increasing Social Conformity and decreasing approval of Asocial Behavior with increasing age. Values relating to Academic/Health matters do not seem to change with age nor does Sociability increase.

Table 20. Factor Score Comparisons by Grade

I. Social Conformity

	1	2	3
1	--	.000	.000
2	2 > 1	--	.000
3	3 > 1	3 > 2	--

II. Academic/Health

	1	2	3
1	--	ns	ns
2		--	ns
3			--

III. Me First

	1	2	3
1	--	ns	ns
2		--	.05
3		2 > 3	--

IV. Masculinity

	1	2	3
1	--	ns	.003
2		--	ns
3	3 > 1		--

V. Adult Closeness

	1	2	3
1	--	ns	.02
2		--	ns
3	1 > 3		--

VI. Aesthetic

	1	2	3
1	--	.02	ns
2	2 > 1	--	.01
3		2 > 3	--

VII. Sociability

	1	2	3
1	--	ns	ns
2		--	ns
3			--

VIII. Asocial Behavior

	1	2	3
1	--	.000	.000
2	1 > 2	--	.001
3	1 > 3	2 > 3	--

Masculinity increases between first and third grade and Adult Closeness decreases over this same period. Children seem to be more inclined to share and let others get ahead of them as they go from grade two to three. For some reason, second grade children seem to value Aesthetics more than do either first or third grade children. Most of the changes found are in the direction expected as a function of increasing socialization and maturity.

Ethnic Comparisons

Table 21 provides the results of the comparisons between ethnic groups with respect to factor score differences. As was seen in the item analyses, Orientals are the most socially conforming group followed by Anglos. Mexican-Americans, Negroes, and Indians "score" lower on Social Conformity than do either Orientals or Anglos and they do not differ from one another.

When it comes to Adult Closeness, Anglos are higher than Mexican-Americans, Orientals, or Negroes and Orientals are higher than either Negroes or Indians. Indians "score" lowest, being less inclined toward closeness to adults than Mexican-Americans, Orientals, or Anglos. In the item analyses, the two significantly loading items were those which involved hugging either Mother or Father. Anglos were superior to every group in hugging Father. The results are not inconsistent.

Items relating to the Academic/Health factor receive greater approval from Mexican-Americans than from Orientals, Anglos, or Indians. Anglos are lowest in this factor, giving less approval to the associated items than do Orientals, Negroes, or Indians. These results are consistent with the item analyses but in contradiction to findings in the literature.

Orientals and Anglos "score" higher in Sociability than do either Mexican-Americans or Indians. Negroes are probably in the middle with respect to valuing friends. The item analyses revealed only the relative shyness of the Indians but did not indicate as clearly the sociableness of the Orientals and Anglos.

The factor named Me First clearly distinguished between Indians, who are low, and all other ethnic groups. The item analyses gave the same results. Indians are the only group who would push a friend in a swing rather than being pushed and they tend to share more easily than others. This finding of nonaggressiveness and submissiveness is not unexpected since it is consistent with the findings of others who have studied Indian culture.

The Mexican-American child exceeds all other children in this in so far as enjoyment of sensory pleasures (Aesthetics) is concerned. The Negro is also higher than the Oriental in this respect. Results in the item analyses were conflicting, with the Negro exceeding Orientals and Anglos when it came to smelling flowers or enjoying nature but the reverse being true when it came to enjoying music.

Masculinity finds the Anglo scoring higher than the Oriental or Negro but there are no other differences. It must be recalled that if girls

Table 21. Factor Score Comparisons by Ethnic Group

I. Social Conformity

	M	O	A	N	I
M	--	.000	.000	ns	ns
O	O > M	--	.02	.000	.000
A	A > M	O > A	--	.000	.000
N		O > N	A > N	--	ns
I		O > I	A > I		--

II. Academic/Health

	M	O	A	N	I
M	--	.01	.000	ns	.04
O	M > O	--	.01	ns	ns
A	M > A	O > A	--	.000	.01
N			N > A	--	ns
I	M > I		I > A		--

III. Me-First

	M	O	A	N	I
M	--	ns	ns	ns	.000
O		--	ns	ns	.01
A			--	ns	.01
N				--	.000
I	M > I	O > I	A > I	N > I	--

IV. Masculinity

	M	O	A	N	I
M	--	ns	ns	ns	ns
O		--	.03	ns	ns
A		A > O	--	.03	ns
N			A > N	--	ns
I					--

V. Adult Closeness

	M	O	A	N	I
M	--	ns	.000	ns	.01
O		--	.01	.03	.001
A	A > M	A > O	--	.000	.000
N		O > N	A > N	--	ns
I	M > I	O > I	A > I		--

VI. Aesthetics

	M	O	A	N	I
M	--	.000	.000	.03	.000
O	M > O	--	ns	.02	ns
A	M > A		--	ns	ns
N	M > N	N > O		--	ns
I	M > I				--

Table 21 (continued)

VII. Sociability

	M	O	A	N	I
M	--	.001	.01	ns	ns
O	O > M	--	ns	ns	.01
A	A > M		--	ns	.02
N				--	ns
I		O > I	A > I		--

VIII. Asocial Behavior

	M	O	A	N	I
M	--	.000	.03	ns	ns
O	M > O	--	.01	.000	.002
A	M > A	A > O	--	.000	ns
N		N > O	N > A	--	.003
I		I > O		N > I	--

were separated from boys, the results might well be different.

Asocial Behavior approval finds Mexican-Americans and Negroes higher than Orientals or Anglos; Anglos, Indians, and Negroes higher thar Orientals; and Negroes higher than Indians. These results are completely consistent with those derived from item analyses of the high-loading items on this factor. Orientals are by far the most disapproving of "bad" things to do.

Intercorrelations of Factor Scores

In order to check the independence of the factors isolated, factor scores were intercorrelated. The results appear in Table 22, below.

Table 22. Intercorrelations of Factor Scores

	I	II	III	IV	V	VI	VII	VIII
I	---							
II	.06	---						
III	-.14*	.04	---					
IV	-.09	.04	.05	---				
V	.00	.03	.10*	-.07*	---			
VI	.00	.02	.06	-.02	-.04	---		
VII	-.03	.16*	.05	.05	.11*	-.04	---	
VIII	-.19*	-.02	.01	.07	-.03	-.03	.01	---

* A correlation of .081 is significant at the .01 level of confidence; .062 is significant at the .05 level. The highest correlation is between Factor I-Social Conformity and Factor VIII-Asocial Behavior (-.19). Factor II-Academic/Health correlates .16 with Factor VII-Aesthetics. Factor III-Me First correlates -.14 with Factor I-Social Conformity. Factor V-Adult Closeness correlates .11 with factor VII-Aesthetic. Factor III-Me First correlates .10 with Factor V-Adult Closeness. Factor IV-Masculinity correlates -.07 with Factor V-Adult Closeness. While these correlations are significant, they are very low and the factors can still be said to be quite independent.

CHAPTER IV

DISCUSSION

The original literature review was organized in terms of the seven hypothesized dimensions of value. Since the dimensions found in this analysis did not correspond to those expected, this discussion will be confined to those items and factors most directly related to previous research findings. It should be noted that the findings of other investigators are generally based on different methods, different measures, and groups of different composition than those involved in this study. The reader may be interested in comparing results here with previous results and drawing his own conclusions.

Liking for school was found to be more characteristic of younger children than older (Fitt, 1956; Neale & Proshek, 1967; Neale, Gill & Tismer, 1970) and first grade children were found to like the teacher better than second-graders (Cohen, 1967). The results of this analysis indicate that first grade children like reading and studying better than third grade children do but there is no difference between the grades with respect to liking for classroom or teacher. There are no grade differences with respect to factor scores on Academic/Health.

Liking for school and related activities was found to be more characteristic of girls than boys by Crosswait (1967), and liking for the teacher also favored girls in the Long and Henderson (1967) study. In this analysis, girls liked reading, studying, classroom, and teacher better than boys did. Girls also scored higher on the Academic/Health factor.

With respect to ethnic differences, Anderson (1970) found Mexican-American and Indian children to lose interest in school. Crosswait (1967) and Long and Henderson (1967) found that Anglos had greater liking for school and teacher than other groups and Dowd (1966) found that Anglos had a more favorable attitude toward school than Negroes did. However, Hepner (1970) found that Mexican-American boys value grades and education more than Anglos do. At the same time, she says that they do not value "reading for its own sake." The results in this analysis were antithetical to previous findings. Mexican-Americans and Negroes liked reading and studying better than did Orientals or Anglos. Even Indians were higher in liking for reading than Anglos and higher than both Anglos and Orientals in liking for studying. With respect to classroom and teacher, Orientals were more favorable than were any other group, followed closely by Mexican-Americans. Even Negroes were higher than Anglos in liking for these items and Indians gave more favorable response to the teacher than did Anglos. Factor scores on Academic/Health confirm the high value placed on school-related matters by Mexican-Americans and the relatively low value placed on them by Anglos.

With respect to morality, age differences were not reviewed but it is well known that moral judgment matures with age. The older the child gets in this study, the less he approves of littering, stealing,

defacing property, sprinkling someone with water, telling lies, or laughing at someone who has lost his ice cream. Factor score comparisons on Asocial Behavior are consistent, with changes significant in the expected direction as the child progresses from first to third grade.

There has been considerable debate concerning the relative morality of boys and girls with most writers finding no real differences (Kohlberg, 1966; Maccoby, 1966) although Kohlberg (1963) does find girls more inhibited and conforming and Krebs (1968) finds them lower in moral judgment. In this study, boys liked stealing and telling a lie better than girls did but none of the other items differentiated between the sexes. Factor score differences on Asocial Behavior were non-significant when boys were compared with girls.

The only ethnic difference in moral attitudes cited was the finding of Harris (1967) that Negroes were less mature than Anglos. In this study, Mexican-Americans and Negroes seemed highest in approval of asocial behaviors and Orientals lowest with Indians and Anglos somewhere between.

Parental closeness has been said to be a particular characteristic of the Mexican-American (Henderson & Merritt, 1968; Hepner, 1970; Peck, 1967; Ramirez, 1967) and more characteristic of the Indian than of the Anglo (Havighurst & Neugarten, 1955). If dependency is related to family-centeredness, Negroes may also be more family-centered since they are more dependent (Borth, 1970) while Anglos might be expected to be less dependent than Indians (Muncy, 1967). Negroes have been found to like their mother better than Anglos do while liking their father less (Long & Henderson, 1967). This study shows that Mexican-Americans are higher than all other groups in liking for Mother and higher than Orientals and Anglos in liking for Father. Negroes are higher than Orientals and Orientals are higher than Indians with respect to positive feelings about Mother while Indians are higher than both Orientals and Anglos in positive feelings for Father. When it comes to being physically close to parents, Anglos are higher than all other groups in choosing to hug their father and all other groups are higher than Indians in choosing to hug their mother. Negroes were most likely to choose to have mother help tie their shoe, exceeding all but Mexican-Americans in this type of dependency. In general, Orientals and Indians are most personally detached from parents, although the factor score comparisons show that Orientals are higher than both Negroes and Indians with respect to the Adult Closeness factor and Anglos are highest of all on this factor.

It seems obvious that in all cultures the child should become less dependent on and more detached from his parents with increasing age. This is borne out by the growing indifference toward mother in all groups but the Oriental (who is relatively indifferent to start with) and toward father in Oriental, Anglo, and Indian groups. The detachment from mother seems to take place between second and third grade while it may take place from father between first and second. The changeover from being helped toward helping oneself seems to occur after first grade. First grade children definitely "score" higher on Adult Closeness than do third grade children.

Girls have been found to be more family-centered (Havighurst & Neugarten, 1955) but not necessarily more dependent in the early years (Mischel, 1966; Maccoby, 1966). In this study, girls liked Mother better than boys did. However, the girls significantly ($<.001$) more often than the boys chose to hug both Mother and Father. Choosing to help oneself rather than having mother help does not differentiate between sexes. The factor scores for girls on Adult Closeness are significantly higher than are those for boys.

Fear of the supernatural has been found to be higher in Indians than Anglos (Havighurst & Neugarten, 1955). The only item remotely related to this fear is Ghosts to which the Indians respond more negatively than either Anglos or Negroes. The only significant grade change in this fear is between first and third among Indians who dislike it less as they get older. Boys like Ghosts better than girls do, consistent with the findings of Sidana (1967) and Croake (1967) who found boys less fearful than girls.

Attitudes toward the police have been found to differentiate between Mexican-Americans and Anglos in the third grade with the former group having a less favorable attitude toward them (Derbyshire, 1968). In this study, Orientals and Anglos had more favorable attitudes toward the Policeman than did Mexican-Americans, and Orientals were higher than Indians in this respect. Interestingly, despite the fact that in the total sample attitudes toward police seem to become more favorable with age (especially within the Oriental and Anglo groups), the opposite was true among Mexican-Americans and Indians. When the sexes are compared, girls have the higher mean but are much less variable in their response.

Altruism has been found to be greater in girls than boys when it comes to giving (White, 1968), benevolence (Bachtold, 1968), and nurturance (Maccoby, 1966). Harris (1967) did not find sex differences but did find an increase with age. Voyat and Silk (1970) claim that the Indian exceeds other cultures in valuing sharing. In this study, girls were significantly more inclined to give a friend a larger piece of cake and to share their only cookie. Giving the larger piece of cake was more characteristic of third-graders than first and sharing the cookie received increasing endorsement from first grade to third. Indians exceeded Negroes in this type of altruism but Negroes were lower than any group except Mexican-Americans in this value. The findings do not particularly support the altruism of Indians, although Indians are uniformly lower than all other groups on the Me First factor, which negatively weights items measuring sharing. One of the problems may be related to the nature of the items which, in both cases, involved food. It does not seem unnatural that children living at a poverty level might be less willing to give away cookies or cake than Orientals and Anglos who are middle and upper-middle class.

Risk-taking has been found to be more characteristic of boys than girls by Maccoby (1966) in her review of sex differences but Jamieson (1969) did not find any difference between the sexes in this respect. The items in the test which might be considered associated with risk-taking involved stepping into the street with cars coming, getting up high in a tree and swinging high in a swing. Strangely, girls liked

crossing the street better than boys did. However, boys preferred being high in the tree and the swing to a greater extent than girls did. First graders liked both high-in-the-tree and crossing the street better than did third graders. They are probably less aware of danger. Mexican-Americans and Anglos liked being high in the tree better than Orientals or Negroes. Mexican-Americans and Indians liked the cars better than Orientals or Anglos who, in turn, liked them better than Negroes did. Swinging high did not differentiate between grades or ethnic groups.

When it comes to aggressive or dominant behavior, boys are generally more aggressive than girls (Mischell, 1966; Maccoby, 1967; Jorgensen, 1967; Sember & Eron, 1967). McKee and Leader (1955) found older children more aggressive than younger but no sex differences. Havighurst and Neugarten (1955) found Anglos higher in liking for aggression than Indians and Borth (1970) found Negroes to be low in this value, as well as in dominance. Hepner (1970) found Mexican-American boys to reject the cultural value of leadership.

Items having to do with aggression include approving of sticking out one's tongue rather than ignoring someone who does it and letting a fight go on uninterrupted. Boys more often than girls make these choices. Sticking out the tongue does not differentiate between grade levels or ethnic groups. Letting the fight go on is less approved by third grade children than second and less by second grade children than first. It is least approved by Orientals and Anglos and most approved by Mexican-Americans and Negroes.

Being dominant is seen in playing the role of teacher, getting first in line, and playing instead of watching. Boys choose playing more often than girls but the other two items do not differentiate between sexes. Wanting to be teacher and play rather than watch do not change with age but first and second-graders more often want to be first in line than do third-graders. Although in the item analyses, there were no ethnic differences with respect to any of these three items, when it comes to the Me First factor on which they load, Indians score significantly lower than all other groups.

Although there is little evidence regarding differences in sociability, Maccoby's (1966) review of sex differences indicates that girls are higher in need for affiliation than boys and Phillips and McNeil (1968) find that girls value good interpersonal relations more than boys do. In this respect Anglos did not differ from non-Anglos in their study. In this investigation, girls were higher than boys in choosing many friends to talk to but not in choosing many to play with. Third grade children seem to choose many friends to both play with and talk to more often than second or first graders. There are no ethnic differences in playing with one or many children but Indians seem least inclined to talk to many, supporting the general impression that they are somewhat shy. Sociability factor scores (which represent the loadings of all items on the factor) show girls higher than boys, no grade differences, and Indians and Mexican-Americans both less sociable than either Orientals or Anglos.

With respect to competition, Madsen and Shapira (1968) have found Mexican-American children less competitive than Negroes or Anglos. The results of the only item which directly assesses competitiveness, Tug-of-war, show boys higher than girls, third grade children higher than first or second, and Orientals and Anglos liking it better than Mexican-Americans, Negroes, or Indians. There is no difference between Mexican-Americans and Negroes.

With respect to the other items, the literature provides no evidence and the results have been discussed previously in connection with item analyses and factor score differences.

Although there has been extensive discussion of items throughout this report, the results of item analyses can only be taken as suggestive and should not be considered conclusive. Since 21 of the items did not load on any factor, a number of those discussed in this section are irrelevant to the most important findings of the investigation. The final products of this year of test development are the factor structure of the test and the conclusions which might be drawn from inter-group comparisons on the basis of this factor structure.

The eight factors which emerged in the optimal solution were both meaningful and high in utility for those who are responsible for the education of children. Of greatest usefulness are those values associated with Social Conformity, Academic/Health, Me First, and Asocial Behavior. Sociability is independent of these and should provide additional information helpful to teachers. It can be assumed that the pattern of these factors will be more prognostic of school achievement and adjustment than will any independent factor. It remains for empirical evaluation to determine which factors relate to and are uniquely predictive of progress in school above and beyond the capability of the student for such progress.

Some of the shortcomings of the test should be noted. First, the total common factor variance in the eight-factor solution was very low (20 percent) and the total common variance available for extraction was also low (28 percent). This was due to the heterogeneity of items. It would be valuable to increase the number of items measuring, particularly, Adult Closeness and Sociability. It would also be helpful to add items to the Asocial Behavior scale. It must be said, in defense of the test as originally conceived, that such items are extremely difficult to structure in such a way as to remove social desirability responses and that the ones so constructed were remarkably successful.

A second problem relates to the divergent variability in responses found between groups. Of all groups, the Negroes are most variable. Mexican-Americans and Indians are almost equal with respect to the heterogeneity of their responses and these three groups are so divergent from the Anglos and Orientals in this respect as to affect statistical differences when ethnic groups are compared. Similarly, girls and boys are extremely different in the variability of their responses with the boys outweighing girls almost six to one when all items are concerned. Grade differences in variability on items pertaining to some factors are also very significant. The general effect of these

differences is to generate some significant differences on chi-square tests where they would never appear when means are compared (t-tests) and to obscure some significant differences which might appear in mean difference comparisons. For this reason, statistical tests must be evaluated in the light of logic and consistency rather than taken at face value.

Sex differences in factor scores suggest that girls and boys are quite different with respect to the dimensions measured and, in all cases, in the expected direction. Boys are, of course, higher in Masculinity than girls. They are also higher in Me First which involves getting ahead of others and obtaining what one wants even with the knowledge that others are getting less. Girls are higher in conformity, academic and health values, closeness to adults, and sociability. Interestingly, they are no different from boys in approval of asocial behaviors.

As expected, children mature in their attitudes toward matters which involve social conformity and asocial behavior and, to some extent, in being aggressively dominant and selfish. They do not change with respect to values related to academic, health, or social matters. Also as expected, they become more detached from parents (or adults).

The most interesting comparisons are the ethnic ones. It would seem that the Mexican-American children as a group are less conforming and more approving of asocial acts than are Orientals or Anglos. The same can be said of the Negro children. Indians, too, are less socially conforming and higher than Orientals with respect to approval of Asocial behavior. The most interesting aspect of this comparison is that with respect to Academic/Health matters, roles are reversed and Mexican-Americans value them more than any other group while even Negroes and Indians value them more than Anglos do. The picture that one then derives is one in which these two minority groups (Mexican-Americans and Negroes) are very favorable toward matters relating to education while at the same time adopting conflicting values related to the school and society. To a lesser extent, this is true of Indians. Bearing in mind that these are children in first, second, and third grade, it does not seem incongruous that with time in the school system, enthusiasm for education may diminish because of confrontations with the system on non-academic matters. With respect to the Mexican-American child, Hepner (1970) would agree since she finds that these children tend to resist the American school and culture by retaining a healthy, masculine identity and not permitting themselves to become "oversocialized." At the same time she found Mexican-American boys to value grades and education more and to have occupational aspirations higher than Anglos did.

What seems to distinguish Orientals from other groups is their high social conformity and their rejection of asocial behavior. Indians are most distinguished by their negation of the value of being "first" and getting what they want. Mexican-Americans seem to have the unique status of being more aesthetically inclined than any other group. Anglos and Orientals, combined, are higher in conformity, closeness to adults (when factor scores are compared), and sociability than are the other three groups. Anglos distinguish themselves mostly by being more negative (or indifferent) toward academic and health matters than any other group.

The differences found are not profound and the groups are far more alike than they are different. Nevertheless, the differences are there and they make for a good deal of speculation concerning problems encountered by certain ethnic groups when confronted by the school which represents the major white, middle-class culture.

Suggestions for further research and development include determining the relative value of these factors to educators, developing more items to measure them, and applying the revised test to the identification of teacher-student value conflicts as they relate to the academic progress of the child. Such efforts have been proposed and, hopefully, will be carried to completion.

CHAPTER V

SUMMARY AND RECOMMENDATIONS

The purpose of this project was to develop an objective, self-administering inventory designed to measure the values of young children. The instrument was to be applicable to at least grades one, two, and three and to all major ethnic groups.

The rationale upon which the test was constructed considered values in terms of expressed "liking" or "preference" for objects, persons, and activities which have importance for children in terms of meeting their needs. The needs employed in item development were derived from Maslow's hierarchical model and included Physiological, Safety, Love, Esteem, Beauty, and Self-actualization. An additional category, representing a major disvalue, was added and labeled Aggression.

A review of the literature provided insight with respect to both the attitudes and values of young children and the problems encountered in attempting to measure dimensions in the affective domain when the subjects are preliterate. Particular attention was paid to those studies in which ethnic comparisons were made. In addition, sex and age differences were examined as were differences in the variability of response to affective measures.

Items were developed by an iterative process which began with interviewing young children to elicit their responses to questions based on the hypothesized seven dimensions. Review of the taped interviews provided the research staff with ideas for pictorial items which were then prepared by the artist and readministered to interviewees. If an item was understood and the response to the item was consistent with the response to the interview question, the item was retained for further testing. In all, more than eighty such items were constructed.

Items were of two types: (1) a single-stimulus picture and four alternative responses; (2) two stimulus pictures and one choice response. In both cases the response was one having to do with the way the subject felt. In the first case, the response was to mark a face which showed how much he "liked" the picture and in the second the response was to mark the picture he "liked best." The single-stimulus-four-response items were called "X" items and because of their difficulty they were preceded by a set of training items so that children could learn the appropriate response to correspond to their feeling about the picture. The choice in the X form was between a face with (a) a frown, (b) no expression, (c) a slight smile, and (d) a broad smile. In the case of the "Y" items, pictures were as identical as possible with the exception of the one concept with respect to which the child was to respond. In some cases the difference consisted of a change in the activity depicted. In others it might be

either a change in the situation or in the position of the picture-subject.

The picture-subject was the child in the picture with whom the child taking the test was to identify. Boys received test booklets with a cover picture of an ethnically ambiguous boy wearing a striped shirt and were told "This is you." Girls received booklets with a cover picture of a girl in a striped dress and the same instruction. The faces to be marked in the X booklets were those of the picture-subject. Boy items depicted boys engaged in the activities; Girl items depicted girls in the same activities except where inappropriate. As an example of an exception, the Y item called "Play 1/many" consisted of two pictures. In the first the picture-subject plays with one friend while in the second he plays with several. In the case of boys, the game is marbles. For girls, the activity is playing with dolls. Pictures in which the picture-subject did not appear because it seemed desirable to avoid identification with the activity or because the stimulus was not child-specific, were identical in Boy and Girl booklets. An example of the former case is the picture of a boy stealing a football from a store. An example of the latter is a picture of a soldier with rifle.

Items in varying stages of development and varying combinations were given to approximately 300 children over a period of weeks. These children represented four ethnic groups: Oriental, Anglo, Mexican-American, and Negro. During this pretest phase the procedure was to administer items individually, ask the child how he felt, check his response against his expression of feeling, and determine whether or not he unde stood what was "going on" in the item. Where it seemed that elements in the drawing were distracting from the concept, the items were redrawn and readministered. Items which despite revision were too difficult to be understood by at least 90 percent of a sizeable sample of children were rejected, as were items with insufficient variability in response. The final instrument consisted of 60 items, 30 of which were in the X format and 30 of which were in the Y format.

The test was then administered to 1320 children. The ethnic composition of the sample of 996 selected for analysis was as follows: (a) 167 Mexican-Americans; (b) 250 Orientals: (c) 195 Anglos; (d) 216 Negroes; and (e) 168 Indians. Mexican-American children were obtained from an ethnically homogeneous school in an Oxnard, California, barrio. Indian children were tested on the Papago Reservation near Tucson, Arizona. Negro children came from the Compton school district near Los Angeles. Orientals and Anglos were intermingled in the Alhambra school district, also near Los Angeles. The total sample was almost evenly divided with respect to sex (496 boys and 500 girls). The grade composition was as follows: (a) 299 first-graders; (b) 341 second-graders; and (c) 356 third-graders.

Tests were administered in classes with the assistance of teachers, teacher aides, older children and, when required, translators. Individual attention was seldom required except in first grade classes. The X booklet required, at most, one class period. The Y booklet was easily completed in 20 minutes by all children.

Test results were analyzed in several ways. The major analysis was that which provided the underlying dimensions of the instrument. Since the items were designed to measure seven dimensions, data were subjected to principal components factor analysis and seven factors were rotated to the varimax criterion. The solution was not satisfactory. A variety of other solutions were attempted with the result that only the eight-factor solution was meaningful. The dimensions did not coincide with those hypothesized but were obviously those which best described the content of the test. The proportion of variance extracted was low (20%) but due to the heterogeneity of the items, the correlation matrix contained little common factor variance. In the eight-factor solution, 21 items were lost (i.e., did not load above the acceptable level of .30 on any factor).

The Factors were named and described as follows:

Factor I. Social Conformity. Children scoring high on this dimension tend to choose to do the "proper" or expected thing rather than that which might be disapproved by adults.

Factor II. Academic/Health. Children scoring high on this dimension enjoy activities related to school as well as practicing good habits of health. They also like going to church and talking to their father.

Factor III. Me First. This factor describes the child who wants to be active, dominant, and selfish rather than the reverse. He takes advantage of others to assert himself.

Factor IV. Masculinity. Typical of boys, the high-scoring child on this factor is not afraid of things (snakes, dark caves) and likes masculine activities (boxing, tug-of-war, whittling) and people (soldiers).

Factor V. Adult Closeness. The child who scores high on this factor likes to hug both mother and father rather than to be patted on the head by them.

Factor VI. Sociability. Children high on this factor choose many friends over one.

Factor VII. Aesthetic. This factor includes only items pertaining to sensory enjoyment.

Factor VIII. Asocial Behavior. The child scoring high on this factor likes such socially disapproved activities as littering, stealing, and defacing property.

Although the eight-factor solutions for ethnic groups taken individually were not identical to the solution for the total sample, there were sufficient commonalities to apply factor scores derived from the total group to the comparison between ethnic groups. The major findings from these factor score comparisons were:

1. Orientals are the most socially conforming of all groups. Between other groups there is little difference except that Anglos are more conforming than Mexican-Americans.

2. Mexican-Americans exceed Orientals and Anglos with respect to liking for things related to academic and health matters. Orientals, Negroes, and Indians score higher on this factor than do Anglos.

3. Indians distinguish themselves by being lower than any other group in dominance and selfishness when factor scores on Me First are compared.

4. Anglos are higher than Negroes and Orientals with respect to Masculinity factor scores.

5. Anglos are higher than Mexican-Americans, Orientals, and Negroes in Adult Closeness while Indians are lower than Mexican-Americans, Orientals and Anglos on this factor.

6. Orientals and Anglos are higher than either Mexican-Americans or Indians with respect to Sociability.

7. Mexican-Americans are higher than any other group in their appreciation of beauty as measured by the Aesthetics factor. Orientals are higher than Negroes on this factor.

8. Orientals are lower than all other groups in their approval of asocial behavior. Mexican-Americans and Negroes are higher than Anglos in this respect.

When boys are compared with girls, the results are in the expected direction. Girls are higher than boys in Social Conformity, Academic/Health, Adult Closeness, and Sociability. Boys are higher than girls in Me First and Masculinity. The sexes do not differ with respect to approval of Asocial behavior.

Grade comparisons find age associated with increasing social conformity and decreasing approval of asocial behavior. There is also a decrease in closeness to adults and in liking to be dominant and selfish and an increase in masculinity. Liking for academic and health matters and sociability do not change with age. Second grade children seem to like aesthetic activities better than do first or third grade children.

When factor scores were intercorrelated, the correlations were very low although some were significant. Social Conformity proved to be negatively related to Asocial Behavior (-.19) and to Me First (-.14) as well as to Masculinity (-.09). Sociability was positively related to Academic/Health (.16) and to Adult Closeness (.11). Adult Closeness was also slightly (.10) related to Me First.

In addition to the factor analysis and the tests for significance of differences between factor scores, item analyses were performed comparing sexes, grades, and ethnic groups. The results of these analyses were consistent with the factor score comparisons for those items which loaded on the factors identified.

Tests for the significance of difference between variances when sexes, grades, and ethnic groups were compared produced the following results:

1. The Negro children were the most variable, followed by the Mexican-American and Indian children who were also quite variable. Anglos were much more homogeneous in their responses and Orientals varied least.

2. Boys were extremely variable when compared with girls.

3. Variability decreased on some items with increasing age (grade level).

When the results of these analyses were compared with results obtained by other investigators, there was general agreement with respect to most findings. However, there were some major surprises. Chief among these was the finding of high academic and health value in the Mexican-American and a concommitant lower value for Anglos than for all other groups. At the same time, the Mexican-American holds higher values for asocial behavior and lower ones for social conformity, providing him with one set of values presumably prognostic of academic interest (if not success) and another set of values which is probably prognostic of conflict with those of teachers and school administrators. To a lesser degree, this is true of the Negro child. Children who have these two sets of values at young ages may well be highly motivated to learn but unwilling to be "socialized" in such a manner as to adapt to the discipline of the school. The finding that Anglos are low on the Academic/Health factor but relatively high on conformity and disapproval of asocial behavior suggests the possibility that it is these latter values which enable them to adjust to and progress in school despite lack of motivation.

Lest the reader assume from this report that children in particular ethnic groups are non-conforming or adopt asocial values, let it be quickly said that, in general, children in all groups disapproved things one "ought not" to do and approved those things which society encourages. The discussion pertains only to the relative degree of approval and disapproval when groups are compared.

Many interesting impressions were obtained in the course of this project and a good deal of clinical "validation" of items was provided in conferences with teachers. Reception of the instrument was enthusiastic and teachers not only felt that they gained insight into their students, but, in at least one case, modified their treatment of a child to his benefit.

Further research is needed before the Values Inventory for Children becomes a useful tool for education. First, the items lost in the factor analysis should be replaced by items overlapping in content with those which loaded on the factors identified. The revised test should be readministered for the purpose of determining the reliability of the final scales. The test should also be tried out at higher grade levels and, perhaps, at the preschool level. Norms should be established by ethnic group, sex, and grade level. Factors should be correlated with standardized measures of social desirability response set. Validity should be established through correlation with criteria of school adjustment and progress, holding aptitude constant, to determine to what extent the dimensions of the test contribute unique variance to the prediction of such criteria. Value conflicts between teacher and/or school administration and the child should be examined to determine the extent to which they affect the child's progress. Value changes in children as a function of exposure to the school system should be examined. These are only some of the necessary steps to be taken in further development of the instrument.

REFERENCES

Adkins, D. C. & Ballif, B. J. Factors of motivation in young children: Theoretical and empirical. Paper presented at the meeting of the American Psychological Association, Miami, September, 1970.

Allen, S. A., Dubanoski, R. A., & Stevenson, H. W. Children's performance as a function of race of E, race of S, and type of verbal reinforcement. Journal of Experimental Child Psychology, 1966, 4, 248-256.

Allport, G. W., Vernon, P. E., & Lindzey, G. Study of values. Boston: Houghton-Mifflin, 1960.

Anderson, J. G. Educational achievement and aspirations of Mexican-Americans and American Indians in two multi-cultural communities: An exploratory assessment. Paper presented at the meeting of the American Educational Research Association, Minneapolis, March, 1970.

Askov, E. N. Development of an instrument for measuring attitudes toward reading in primary pupils. Paper presented at the meeting of the American Educational Research Association, Los Angeles, February, 1969.

Ausubel, D. P. & Ausubel, B. Ego development among segregated Negro children. In A. H. Passow (Ed.), Education in depressed areas. New York: Teacher's College, Columbia University, 1963. Pp. 109-141.

Bachtold, L. M. Interpersonal values of gifted high school students. Psychology in the Schools, 1968, 5, 368-370.

Baldwin, A. L. The study of individual personality by means of the intraindividual correlation. Journal of Personality, 1946, 14, 151-168.

Baratz, S. S. Effect of race of experimenter, instructions, and comparison population upon level of reported anxiety in Negro subjects. Journal of Personality and Social Psychology. 1967, 7, 194-196.

Barberio, R. The relationship between achievement motivation and ethnicity in Anglo-American and Mexican-American junior high school students. Psychological Record, 1967, 17, 263-266.

Barsky, M. The relationship of some aggressive characteristics to reading achievement in fifth and sixth grade males and females. Paper presented at the meeting of the American Educational Research Association, New York City, February, 1967.

Barthol, R. P. & Bridge, R. G. The ECHO multi-response method for surveying value and influence patterns in groups. Psychological Reports, 1968, 22, 1345-1354.

Barthol, R. P. & deMille, R. Project ECHO Final Report. Santa Barbara, California: General Research Corporation, March, 1969.

Bavelas, A. A method for investigating individual and group ideology. Sociometry, 1942, 5, 371-377.

Berg, I. A. & Collier, J. S. Personality and group differences in extreme response sets. Educational and Psychological Measurement, 1953, 13, 164-169.

Biber, B. & Lewis, C. An experimental study of what young children expect from their teachers. Genetic Psychology Monographs, 1949, 40, 3-97.

Bieri, J. & Lobeck, R. Self-concept differences in relation to identification, religion, and social class. Journal of Abnormal and Social Psychology, 1961, 62, 94-98.

Bittner, A. C. & Shinedling, M. M. A methodological investigation of Piaget's concept of conservation of substance. Genetic Psychology Monographs, 1968, 77, 135-165.

Bolea, A., Felker, D., & Barnes, M. The development and validation of a pictorial self-concept scale for children in K-4. Paper presented at the meeting of the National Council on Measurement in Education, Minneapolis, March, 1970.

Bond, J. R. Acculturation and value change. Dissertation Abstracts, 1967, 28, 1155.

Borth, A. M. Coping and defending in black classrooms. Paper presented at the meeting of the American Educational Research Association, Minneapolis, March, 1970.

Boyd, G. F. The levels of aspiration of white and negro children in a non-segregated elementary school. Journal of Social Psychology, 1952, 36, 191-196.

Brofenbrenner, U. The role of age, sex, class, and culture in studies of moral development. Religious Education, 1962, 57, 3-17.

Brown, B. The assessment of self-concept among four year old negro and white children: A comparative study using the Brown-IDS self-concept referents test. Paper presented at the meeting of the Eastern Psychological Association, New York, 1966.

Brozovich, R. W. Group norms in sixth grade classrooms of constrasting socio-economic status and differing racial composition. Unpublished doctoral dissertation, George Peabody College, 1966.

Cameron, A. & Storm, T. Achievement motivation in Canadian Indian, middle- and working-class children. Psychological Reports, 1965, 16, 459-463.

Campbell, D. T. Recommendations for APA test standards regarding construct, trait or discriminant validity. American Psychologist, 1960, 15, 546-553.

Candill, W. & Weinstein, H. Maternal care and infant behavior in Japan and American. Psychiatry, 1969, 32, 12-43.

Carter, T. P. The negative self-concepts of Mexican-American students. School and Society, 1968, 96, 217-219.

Cattell, R. B. & Coan, R. W. Child personality structure as revealed in teachers' behavior ratings. Journal of Clinical Psychology, 1957, 13, 315-327.

Cattell, R. B. & Coan, R. W. Objective-test assessment of the primary personality dimensions in middle childhood. British Journal of Psychology, 1959, 50, 325-352.

Cattell, R. B. & Peterson, D. R. Personality structure in four and five year olds in terms of objective tests. Journal of Clinical Psychology, 1959, 15, 355-369.

Cheyney, A. B. Teachers of the culturally disadvantaged. Exceptional Children, 1966, 33, 83-88.

Cicirelli, V. G., Cooper, W. H., & Branger, R. L. Children's Attitude Range Indicator (CARI). Project Head Start National Impact Study, Westinghouse Learning Corporation/Ohio University, 1968.

Cloward, R. A. & Jones, J. A. Social class: Educational attitudes and participation. In A. H. Passow (Ed.), Education in depressed areas. New York: Teachers College, Columbia University, 1963.

Cohen, S. An exploratory study of young children's attitudes toward school. Proceedings of the 75th Annual Convention of the American Psychological Association, 1967, 2, 305-306.

Cohen, S. Exploratory study of young children's perceptions of teacher behavior. Proceedings of the 75th Annual Convention of the American Psychological Association, 1967, 2, 331-332.

Cole, C. W. & Miller, C. D. Relevance of expressed values to academic performance. Journal of Counseling Psychology, 1967, 14, 272-276.

Coleman, J. S., Campbell, E. Q., Hobson, C. J., McPartland, J., Mood, A. M., Weinfeld, F. D., & York, R. L. Equality of educational opportunity. Washington, D. C.: National Center for Educational Statistics, Department of Health, Education and Welfare, 1966 (Government Printing Office Document No. FS5.238:38001).

Costello, J. The effects of pretesting and examiner characteristics on test performance of young disadvantaged children. Chicago: Institute for Juvenile Research, Research Report No. 1, Vol. 7, February, 1970.

Cowen, E. L. Social desirability responses of young children: An interim report. Psychological Reports, 1966, 19, 1133-1134.

Crandall, V. C. Personality characteristics and social achievement behavior associated with children's social desirability response tendencies. Journal of Personality and Social Psychology, 1966, 4, 477-486.

Crandall, V. C., Crandall, V. J., & Katovsky, W. A. A children's social desirability questionnaire. Journal of Consulting Psychology, 1965, 29, 27-36.

Crandall, V. J., Katovsky, W., & Preston, A. Motivational and ability determinants of young children's intellectual achievement behavior. Child Development, 1962, 33, 643-661.

Croake, J. W. Fears of children. Dissertation Abstracts, 1967, 28, 337-338.

Crosswait, A. B. Jr. A study of selected cognitive and affective variables functioning in two subgroups of lower economic class fifth and sixth grade pupils in a non-metropolitan area. Dissertation Abstracts, 1967, 27, 2721-2722.

Crowne, D. P. & Marlowe, D. The approval motive: Studies in evaluative dependence. New York: Wiley, 1964.

Cruse, D. B. Socially desirable responses at ages 3 through 6. Child Development, 1966, 37, 909-916.

Davidson, H. H. & Lang, G. Children's perceptions of their teachers' feelings toward them related to self-perception, school achievement, and behavior. Journal of Experimental Education, 1960, 29, 107-118.

deMille, R. Logical and empirical oppositeness in value responses. Psychological Reports, 1970, 26, 143-154.

Derbyshire, R. L. Children's perception of the police: A comparative study of attitudes and attitude change. Journal of Criminal Law, Criminology, and Police Science, 1968, 59, 183-190.

Deutsch, M. Minority group and class status as related to social and personality factors in scholastic achievement. Monograph of the Society for Applied Anthropology, Ithaca, New York: Cornell University, 1960.

Dowd, D. J. A comparative study of attitudes, goals and values between Negro American, white American and Cuban refugee groups in a large southern city. Dissertation Abstracts, 1967, 27, 3306-3307.

Dunn, J. School approach-avoidance values: A differential study of children's affect and value patterns for the academic as contrasted to the social aspects of school. Unpub. M. S. University of Michigan. (No date).

English, H. B. & English, A. C. A comprehensive dictionary of psychological and psychoanalytic terms. New York: Longmans-Green, 1958.

Felker, D. W. & Bahlke, S. Learning deficit in the ability to self-reinforce as related to negative self concept. Paper presented at the meeting of the American Educational Research Association, Minneapolis, March, 1970.

Fitt, A. B. An experimental study of children's attitude to school in Auckland, New Zealand. British Journal of Educational Psychology, 1956, 26, 25-30.

Franco, D. The child's perception of the teacher as compared to his perception of "the mother." Journal of Genetic Psychology, 1965, 107, 133-141.

Glick, O. The interdependence of sixth graders' school attitude and academic performance. Presented at the meeting of the Western Psychological Association, Vancouver, 1969.

Gorlow, L. & Noll, G. A. The measurement of empirically determined values. Educational and Psychological Measurement, 1967, 27, 1115-1118.

Gorsuch, R. L. & Smith, R. Naturally occurring value categories in children. Paper presented at the meeting of the Southeastern Psychological Association, Louisville, Kentucky, 1970.

Gunderson, E. K. & Nelson, P. D. Life status and interpersonal values. Educational and Psychological Measurement, 1966, 26, 121-129.

Gunderson, E. K. & Nelson, P. D. Life status and interpersonal values. Educational and Psychological Measurement, 1966, 26, 121-129.

Gupta, Willa. Use of factor analytic techniques in assessing personality traits in young children Unpub. ms., 1969.

Harris, H. The development of moral attitudes in white and Negro boys. Dissertation Abstracts, 1967, 28, 2624.

Harris, L. A. A study of altruism. Elementary School Journal, 1967, 68, 135-141.

Hartshorne, H. & May, M. Studies in the nature of character. New York: Macmillan, 1930.

Havighurst, R. J. & Neugarten, B. L. American Indian and white children, a sociopsychological investigation. Chicago: University of Chicago Press, 1955.

Heilbrunn, G. On sharing. American Journal of Psychotherapy, 1967, 21, 750-756.

Helling, B. A. Comparative study of values among school children in Turkey and the United States. Dissertation Abstracts, 1967 [illegible] 497.

Helper, M. M. & Garfield, S. L. Use of the semantic differential study acculturation in American Indian adolescents. Journal Personality and Social Psychology, 1965, 2, 817-822.

Henderson, R. W. & Merritt, C. B. Environmental backgrounds of Mexican-American children with different potentials for school success. Journal of Social Psychology, 1968, 75, 101-106.

Hepner, E. M. Self-concepts, values and needs of Mexican-American underachievers. Paper presented at the meeting of the American Psychological Association, Miami, September, 1970.

Hoepfner, R. (Chmn.) Measuring normal affective states in children. Symposium presented at the 1970 Annual Convention of the Western Psychological Association. U. C. L. A. Graduate School of Education, Los Angeles, California. CSE Report No. 58., June, 1970.

Holt, J. How children fail. New York: Delta Books, 1964.

Hudson, W. The study of the problem of pictorial perception among acculturated groups. International Journal of Psychology, 1 89-107.

Humrnel, R. & Sprinthall, N. Underachievement related to interests, attitudes and values. Personnel and Guidance Journal, 1965, 44, 388-395.

Jackson, P. W. & Lahaderne, H. M. Scholastic success and attitude toward school in a population of sixth-graders. Journal of Educational Psychology, 1967, 58, 15-18.

Jamieson, B. D. The influences of birth order, family size, and sex differences on risk-taking behavior. British Journal of Clinical Psychology, 1969, 8, 1-8.

Jansen, P. & Hoepfner, R. An evaluation of non-projective personality measures. Paper presented at the meeting of the Western Psychological Association, Los Angeles, 1970.

Jersild, A. In search of self. New York: Columbia University, 1952.

Jorgensen, G. A. Relationships among self, peer, and teacher evaluations of motivational dispositions and behavior in third grade. Dissertation Abstracts, 1967, 27, 3314-3315.

Kaiser, H. F. The Varimax criterion for analytic rotation in factor analysis. Psychometrika 1958, 23, 187-200.

Kalhorn, J. Values and sources of authority among rural children. In K. Lewin, C. E. Meyers, J. Kalhorn, M. L. Farber, & J. R. P. French. Authority and frustration. Iowa City: University of Iowa Press, 1944. Pp. 101-151.

Katz, I. Review of evidence relating to effects of desegregation on the intellectual performance of Negroes. American Psychologist, 1964, 19, 381-399.

Katz, I. The socialization of academic motivation in minority group children. In D. Levine (Ed.) Nebraska Symposium on Motivation. Lincoln, Nebr.: University of Nebraska Press, 1967.

Katz, I., Henchy, T., & Allen, H. Effects of race of tester approval-disapproval and need on Negro children's learning. Journal of Personality and Social Psychology, 1968, 8, 38-42.

Katz, I., Roberts, S. O., & Robinson, J. M. Effects of task difficulty, race of administrator, and instructions on digit-symbol performance of Negroes. Journal of Personality and Social Psychology, 1965, 2, 53-59.

Kennedy, W. A. & Vega, M. Negro children's performance on a discrimination task as a function of examiner race and verbal incentive. Journal of Personality and Social Psychology, 1965, 2, 839-843.

Kim, Y., Anderson, H. E. Jr., & Bashaw, W. L. The simple structure of social maturity at the second grade level. Educational and Psychological Measurement, 1968, 28, 145-153.

Klausner, S. J. Social class and self-concept. Journal of Social Psychology, 1953, 38, 201-205.

Kleiger, D. M. & Walsh, J. A. A pictorial technique for obtaining social desirability ratings from young children. Psychological Reports, 1967, 20, 295-304.

Kluckholn, F. R. & Strodtbeck, F. L. Variations in value orientations. Evanston: Row, Peterson, 1961.

Knowles, R. T. & Shah, G. B. Cultural bias in testing: An exploration. Journal of Social Psychology, 1969, 77, 285-286.

Koch, H. L. A factor analysis of some measures of the behavior of pre-school children. Journal of General Psychology, 1942, 27, 257-287.

Koch, H. L. A multiple-factor analysis of certain measures of activeness in nursery school children. Journal of Genetic Psychology, 1934, 45, 482-487.

Kohlberg, L. A cognitive-developmental analysis of children's sex-role concepts and attitudes. In E. E. Maccoby (Ed.) The Development of sex differences. Stanford, Calif.: Stanford University Press, 1966.

Kohlberg, L. Moral development and identification. H. H. Stevenson (Ed.) Child Psychology. Chicago: University of Chicago Press, 1963.

Kohn, M. L. Social class and parental values. American Journal of Sociology, 1959, 64, 337-351.

Krathwohl, D. R., Bloom, B. S., & Masia, B. B. Taxonomy of educational objectives: the classification of educational goals. Handbook II: Affective Domain. New York: David McKay Co., Inc., 1956.

Krebs, R. L. Girls--more moral than boys or just sneakier? Proceedings of the 76th Annual Convention of the American Psychological Association. 1968, 3, 607-608.

Kuethe, J. L. Social schemas. Journal of Abnormal and Social Psychology, 1962, 64, 31-36.

LaForge, R. and Suczek, R. F. The interpersonal dimensions of personality: III. An Interpersonal Check List. Journal of Personality, 1955, 24, 94-112.

Larson, R. L. & Sutker, S. S. Value differences and value concensus by socio-economic levels. Social Forces, 1966, 44, 563-569.

Lehmann, I. J. Problems of methodology in the study of values. College Student Survey, 1967, 1, 35-42.

Liebow, E. Behavior and values of streetcorner Negro men. Dissertation Abstracts, 1967, 28, 775.

Light, C. S., Zax, M., and Gardiner, D. H. Relationship of age, sex, and intelligence level to extreme response style. Journal of Personality and Social Psychology, 1965, 2, 907-909.

Long, B. H. The self concept of negro and white school beginners. Paper presented at the meeting of American Educational Research Association, Chicago, February, 1968.

Long, B. H. & Henderson, E. H. Social schemata of school beginners: some demographic correlates. Proceedings of the 75th Annual Convention of the American Psychological Association, 1967, 2, 329-330.

Long, B. H., Henderson, E. H., & Ziller, R. C. Developmental changes in the self-concept during middle childhood. Merrill-Palmer Quarterly, 1967, 13, 201-215.

Maccoby, E. E. (Ed.) The development of sex differences. Stanford, California: Stanford University Press, 1966.

Macgregor G. Warriors without weapons. Chicago: University of Chicago Press, 1946.

Madsen, M. C. Cooperative and competitive motivation of children in three Mexican subcultures. Psychological Reports, 1967, 20, 1307-1320.

Madsen, M. C. & Shapira, A. Cooperative and competitive behavior of urban Afro-American, Anglo-American, Mexican-American, and Mexican village children. Research Projects in Early Childhood Learning. University of California, Los Angeles Graduate School Of Education, April, 1969.

Marlowe, D. & Crowne, D. P. Social desirability and response to perceived situational demands. Journal of Consulting Psychology, 1961, 25, 109-115.

Maslow, A. H. Motivation and personality. New York: Harper, 1954.

Mason, R. E. Value orientation scale development. Psychological Reports, 1968, 22, 184.

Maurer, K. M. Patterns of behavior of young children as revealed by a factor analysis of trait "clusters." Journal of Genetic Psychology, 1941, 59, 177-188.

McDonald, R. L. & Gynther, M. D. Relationship of self and ideal-self descriptions with sex, race, and class in southern adolescents. Journal of Personality and Social Psychology, 1965, 1, 85-88.

McKee, J. P. & Leader, F. B. The relationship of SES and aggression to the competence behavior of pre-school children. Child Development, 1955, 26, 135-141.

Mercer, J. R. Imprints of culture on the personalities of children. California Mental Health Research Digest, 1967, 5, 161-162.

Mingione, A. D. Need for achievement in Negro, white, and Puerto Rican children. Journal of Consulting and Clinical Psychology, 1968, 32, 94-95.

Mingione, A. D. Need for achievement in Negro and white children. Journal of Consulting Psychology, 1965, 29, 108-111.

Mischel, W. A social-learning view of sex differences in behavior. In E. E. Maccoby (Ed.) The development of sex differences. Stanford, California: Stanford University Press, 1966.

Muncy, R. J. Value orientations of Anglo and Navajo high school sophomores. Dissertation Abstracts, 1967, 28, 1249-1250.

Mussen, P. H. Discussion of George C. Thompson's paper. In R. M. Gagne & W. J. Gephart (Eds.), Learning research and school subjects. Itasca, Ill.: F. E. Peacock Publishers, 1968.

Neale, D. C., Gill, N., & Tismer, W. Relationship between attitudes toward school subjects and school achievement. Journal of Educational Research, 1970, 63, 232-237.

Neale, D. C. & Proshek, J. M. School-related attitudes of culturally disadvantaged elementary school children. Journal of Educational Psychology, 1967, 58, 238-244.

Nelson, J. C. Interests of disadvantaged and advantaged Negro and white first graders. Journal of Negro Education, 1968, 37, 168-173.

Nelson, L. & Madsen, M. C. Cooperation and competition in four-year-olds as a function of reward contingency and subculture. Research Projects in Early Childhood Learning. UCLA Graduate School of Education, December, 1968.

Osborn, F. W. The ethical contents of children's minds. Educational Review, 1894, 8, 143-146.

Osgood, C. E., Suci, G. J., & Tannenbaum, P. H. The measurement of meaning. Urbana: University of Illinois Press, 1957.

Panther, E. E. Development of a technique for assessing children's attitudes toward school. Child Study Center Bulletin, State University College, Buffalo, New York, 1967, 3, 27-31.

Parker, J. The relationship of self-report to inferred self-concept. Educational and Psychological Measurement, 1956, 26, 691-700.

Peck, R. F. A comparison of the value systems of Mexican and American youth. Revista Interamericana de Psicologia, 1967, 1, 41-50.

Pedersen, D. M., Shinedling, M. M., & Johnson, D. L. Effects of sex of examiner and subject on children's quantitative test performance. Journal of Personality and Social Psychology, 1968, 10, 251-254.

Penner, L., Homant, R., & Rokeach, M. Comparison of rank-order and pair-comparison methods for measuring value systems. Perceptual and Motor Skills, 1968, 27, 417-418.

Peterson, D. R. The age generality of personality factors derived from ratings. Educational and Psychological Measurement, 1960, 20, 461-474.

Peterson, D. R. & Cattell, R. B. Personality factors in nursery school children as derived from teacher ratings. Journal of Consulting Psychology, 1959, 23, 562.

Pettigrew, T. F. A profile of the Negro American. Princeton, N. J.: Van Nostrand, 1964.

Phillips, B. N. & McNeil, K. Differences between Anglo and Non-Anglo children on factorial dimensions of school anxiety and coping style. Paper presented at the meeting of the American Educational Research Association, Chicago, February, 1968.

Piaget, J. The moral judgment of the child. Glencoe, Ill.: Free Press, 1948.

Piers, E. V. & Harris, D. B. The Piers-Harris Children's Self Concept Scale. Nashville, Tenn.: Counselor Recordings and Tests, 1969.

Piowar, E. M. Preschoolers' responses to questions concerning parental roles while enrolled in a 1965 Head Start program of a settlement house. Child Study Center Bulletin, State University College, Buffalo, 1966, 2, 110-115.

Ramirez, M. Identification with Mexican family values and authoritarianism in Mexican-Americans. Journal of Social Psychology, 1967, 73, 3-11.

Raymer, E. Race and sex identification in preschool children. Unpub. Master's thesis, University of California at Los Angeles, 1969.

Reboussin, R. & Goldstein, J. W. Achievement motivation in Navaho and white students. American Anthropologist, 1966, 68, 740-745.

Reissman, F. Teachers of the poor: A five-point plan. Journal of Teacher Education, 1967, 18, 326-336.

Renniger, C. A. & Williams, J. E. Black-white color connotations and race awareness in pre-school children. Perceptual and Motor Skills, 1966, 22, 771-785.

Rettig, S. & Pasamanick, B. Differences in structure and severity of moral judgments by students and by a community sample: Some observations on ethical relativity. The Ohio Journal of Science, 1962, 62, 317-325.

Richards, R. W. & Simons, M. P. The Fels Child Behavior Scales. Genetic Psychological Monographs, 1941, 24, 259-309.

Richards, T. W. Factors in the personality of nursery school children. Journal of Experimental Education, 1940, 9, 152-153.

Ringness, T. A. Identification patterns, motivation, and school achievement of bright junior high boys. Journal of Educational Psychology, 1967, 58, 93-102.

Rokeach, M. Beliefs, attitudes, and values. San Francisco: Josey-Bass, 1968.

Romero, F. E. A study of Anglo- and Spanish-American culture value concepts and their significance in secondary education. Dissertation Abstracts, 1966, 27, 1559-1560.

Rosen, B. Race, ethnicity and the achievement syndrome. American Sociological Review, 1959, 24, 417-460.

Rosenthal, R. Experimenter effects in behavioral research. New York: Appelton-Century-Crofts, 1966.

Roth, R. M. & Puri, P. Direction of aggression and the nonachievement syndrome. Journal of Counseling Psychology, 1967, 14, 277-281.

Rutherford, E. & Mussen, P. Generosity in nursery school boys. Child Development, 1968, 39, 755-765.

Scheiner, E. Race, class, and sex as correlates of the self-social concepts of children. Senior honors thesis, Goucher College, 1967.

Scott, W. A. Values and organizations. Chicago: Rand McNally, 1965.

Scriven, M. Student values as educational objectives. Proceedings of the 1965 Invitational Conference on Testing Problems. 1966, 33-49.

Sember, I. J. & Eron, L. D. Replication report: Relationship of aggression in third grade children to certain pupil characteristics. Psychology in the Schools, 1967, 4, 356-358.

Shooster, C. N. The pictorial study. Chicago: Psychometric Affiliates, 1957.

Shuey, A. M. The testing of Negro intelligence. Lynchburg, Va.: Bell, 1958.

Shure, M. B. Fairness, generosity, and selfishness: The naive psychology of children and young adults. Child Development, 1968, 39, 875-886.

Sidana, U. R. A comparative study of fears in children. Journal of Psychological Researches, 1967, 11, 1-6.

Sines, J. O. & Pauker, J. D. The development of an objective, non-verbal personality test for children. Paper presented at the meeting of the Midwestern Psychological Association, Chicago, September, 1966.

Sines, J. O., Pauker, J. D., Sines, L. K., & Owen, D. R. Identification of clinically relevant dimensions of children's behavior. Journal of Consulting and Clinical Psychology, 1969, 33, 728-734.

Smith, B. O. Teaching and testing values. Proceedings of the 1965 Invitational Conference on Testing Problems. 1966, 50-59.

Soares, A. T. & Soares, L. M. A comparative study of the self-image of disadvantaged children. Paper presented at the meeting of the American Educational Research Association, Los Angeles, February, 1969 (a).

Soares, A. T. & Soares, L. M. Self-perceptions of culturally disadvantaged children. American Educational Research Journal, 1969(b), 6, 31-45.

Soares, A. T. & Soares, L. M. Differences in self-perceptions of disadvantaged students. Paper presented at the meeting of the American Educational Research Association, Minneapolis, March, 1970.

Stabler, J. R., Johnson, E. E., Berke, M. A., & Baker, R. B. The relationship between race and perception of racially related stimuli in preschool children. Child Development, 1969, 40 1233-1239.

Stangel, G. Children's interest areas and their assessment. Paper presented at the meeting of Western Psychological Association, Los Angeles, April, 1970.

Storm, P. A. The relationship between self-concept and race image in Negro first graders. Unpublished master's thesis. University of Maryland, 1968.

Strickland, G. Development of a school attitude questionnaire for young children. C. S. E. Report No. 59. Los Angeles, Calif.: Center for the Study of Evaluation, UCLA Graduate School of Education. July, 1970.

Strickland, G. & Klein, S. The child's attitude toward school. Paper presented at the meeting of the Western Psychological Association, Los Angeles, April, 1970.

Tefft, S. K. Anomy, values and culture change among teen-age Indians: An exploratory study. Sociology of Education, 1967 40, 145-157.

Tenenbaum, S. A test to measure a child's attitude toward school, teachers, and classmates. Educational Administration and Supervision, 1940, 26, 176-188.

Thomas, W. L. The differential value profile. Form A. Owasso, Michigan: Educational Service Co., 1963.

Thompson, G. G. The quest for prescriptive values in our educational programs. In Gagne, R. M. & Gephart, W. J. (Eds.), Learning Research and School Subjects. Itasca, Ill.: F. E. Peacock Publishers, Inc., 1968.

Tschechtelin, M. A., Hipskind, M. J. F., & Remmers, H. H. Measuring the attitudes of elementary school children toward their teachers. Journal of Educational Psychology, 1940, 31, 195-203.

Van Evra, J. A. The relationship between level of self-esteem and manifestations of conscience development in fifth graders. Dissertation Abstracts, 1967, 27, 3298-3299.

Voyat, G. & Silk, S. Cross-cultural study of cognitive development on the Pine Ridge Indian Reservation. Pine Ridge Research Bulletin, No. 11, January, 1970.

Whisenton, J. T. A comparison of the values, needs and aspirations of school leavers with those of non-school leavers. Dissertation Abstracts, 1968, 29, 822-823.

White, G. M. The elicitation and durability of altrusitic behavior in children. Dissertation Abstracts, 1968, 28, 3869.

Williams, H. M. Factor analysis of Berne's "Social Behavior Patterns in Young Children" Journal of Experimental Education, 1935, 4, 142-146.

Williams, J. E. & Roberson, J. K. A method for assessing racial attitudes in preschool children. Educational and Psychological Measurement, 1967, 27, 671-689.

Witty, P. A. (Ed.) The educationally retarded and disadvantaged. Sixty-sixth yearbook. Part. I. Chicago, Illinois: National Society for the Study of Education, 1967.

Woodruff, A. D. The roles of value in human behavior. Journal of Social Psychology, 1952, 36, 97-107.

Wooley, D. & Patalino, M. School administrators view affective behavior as an educational product. Paper presented at the meeting of the Western Psychological Association, Los Angeles, April, 1970.

Woolner, R. B. Preschool self-concept picture test (PS-CPT). Michigan State University Head Start Evaluation and Research Center, Social-Emotional Task Force Final Report. May, 1969.

Yee, A. H. Factors involved in determing the relationship between teachers' and pupils' attitudes. Austin, Texas: University of Texas. 1966.

Zax, M., Gardiner, D. H., & Lowy, D. G. Extreme response tendency as a function of emotional adjustment. Journal of Abnormal and Social Psychology, 1964. 69, 654-657.

Zax, M. & Takahashi, S. Response styles among Japanese and American children. Japanese Psychological Research, 1967, 9 58-61.

Zillen, R. C., Hagey, J., Smith, M., & Long, B. Self-esteem: A self-social construct. Journal of Consulting and Clinical Psychology, 1969, 33, 84-95.

APPENDIX A

PRELIMINARY INTERVIEW

I am going to interview you. Do you know what an interview is? That is when someone asks a lot of questions about what you think of different things.

Fill out Interview Blank: Ask the child:

1. Name, School, Grade, Birthday, Age, Brothers and Sisters?

   Where do you live? Who lives with you? (circle: Mother, Father at home or not.)

2. What does your father do?
3. What does your mother do?
4. What does Daddy do when he gets home?
5. What do you like to play when you are indoors?
6. What do you like to play when you are outside?
7. What is your favorite T.V. program?
8. What do you like best to eat?
9. What meal do you like best? breakfast, lunch or dinner...why?
10. What would you like to be when you grow up?
11. Would you rather play with your friends at your house or at their house? Why?
12. What do you do after dinner? Then what... (until he says: go to bed) Prompt: What do you do before going to bed?
13. What do you do to take care of your body?
14. Do you like to take a bath?
15. What do you do if you are cold?
16. Do you sleep with anyone, or any toy, or pet?
17. Who takes care of sick people? Who else? What do they do to help them get well?
18. What do grownups do that is bad for them?
19. What do you do if you are hot?
20. What things might hurt you?
21. What happens if you fall down? What do you do?
22. What people might hurt you?
23. What would you like to do that you're not allowed to do?
24. What are things that children are scared of?
25. What places would you be afraid to go all by yourself?
26. What is a very bad thing a person can do?
27. What happens if someone steals something?

28. What happens when somebody breaks something?

29. What would you like to break if you could? Why?

30. When someone breaks something of yours on purpose, what do you want to happen?

31. What do people do to get rich?

32. What do you think of war?

33. Think of a boy in your school or class that everyone likes. (name_____)
What is he good at? Why do you like him?

34. (BOYS only) Are you as good at _____as he is?
What are you good at doing?

35. Think of a girl in your school that everyone likes. (name_____)
What does she look like? What is she good at?

36. (GIRLS only) Are you as pretty as _____is?
Are you as good at _____as she is?
What are you good at doing?

37. Think of someone you don't like. Why don't you like _____?

38. Would you rather have one best friend or a lot of friends?

39. Would you rather play with boys and girls or only boys (girls)?

40. Would you rather be the leader of a team, or one of the players on the team?

41. What are the ways in which people can get killed?

42. If you had a lot of money, what would you do with it?

43. What is something you don't like to do?

44. What jobs do you have to do around the house to help your mother? Do you like doing those jobs?

45. What do you do in school that you like best?

46. What is something fun to do but is dangerous (you might get hurt)?

47. What is something that is hard to do, or takes a long time to do?

48. Who tells you stories?

49. Do you like listening to stories?

50. Who reads to you? Who else?

51. What are your favorite stories?

52. How do you feel about God? Do you pray? When?

53. Things are pretty or nice for different reasons.

    a. What is something that is pretty to look at?

    b. Something that sounds pretty?

    c. Something that smells good?

    d. Something that feels good to touch?

APPENDIX B

INSTRUCTIONS FOR "X" BOOKLET

Test administrator draws roughly on chalk board the four faces.

Good Morning, children. Look at the board. Here are four faces. Can you find the very happy face? Point to it. (E circles face on right.)

How do you know this is the very happy face? Yes, the big smile.

Can you find the very sad, unhappy face? Point to it. (E circles face on left.) How do you know this is the sad face? Yes, the mouth turns down.

Look at the cover of your book. This is you.

In this picture book you have a striped shirt or dress.

Turn the page and look at the four faces.

When you like something you feel happy. Look for the very happy face. Take your pencil and make a circle around it.

When you don't like something you feel sad. Look for the unhappy and angry face and circle it.

TURN PAGE

Look at the big picture. You are eating your favorite ice cream. Circle the very happy face in the box. That face says "I like it very much."

TURN PAGE

You are falling and going to hurt yourself and you feel sad. Circle the unhappy face in the box. That face says "I don't like this."

TURN PAGE

You are sitting with nothing to do. Circle the face in the box. That face says "I don't care."

TURN PAGE

You are bouncing a ball and you like it a little. Circle the face in the box. That face says "I like it a little bit."

Look at the faces on the board. What does the very happy face say? (E points to ☺). What does the sad face say? (E points to ☹). What does this face ☺ say? What does this face 😐 say?

Now the faces do not have boxes.

TURN PAGE

Circle the face that says: "I like this very much."

TURN PAGE

Circle the face that says: "I don't like this."

TURN PAGE

Circle the face that says: "I don't care."

TURN PAGE

Circle the face that says: "I like it a little bit."

Remember you have a striped shirt or dress and you are in <u>most</u> of the pictures.

TURN PAGE

Look at the big picture, circle the face that tells how you feel about what you are doing.

Do every page in the book.

(After one minute)

Remember, you have a striped shirt or dress. See what you are doing, or what is happening in the picture, and circle the face that tells how you feel about it.

INSTRUCTIONS FOR "Y" BOOKLET

Here is a new book.

This is you. You have a striped shirt or dress.

TURN PAGE

Look at the two pictures.

It is cold and raining. In one picture you have a rain coat and hat to keep dry. In the other picture you do not have a coat or hat and will get wet.

Draw a line under the picture you like best.

Go on to the next page. Look carefully at the two pictures and draw a line under the picture you like best.

On each page draw a line under the picture you like best.

Do every page in the book.

(After one minute)
Remember you have a striped shirt or dress and you are in most of the pictures.

INSTRUCTIONS FOR "X" BOOKLET

Buenos días.
Good morning, children.

Here is a picture book.
Miren este librito.
Look at the cover. This is you.
El niño tiene una camisa rayada y la niña tiene un vestido rayado.
Tú eres este nino o niña.
In this picture book you have a striped shirt or dress.

TURN THE PAGE
PRÓXIMA PÁGINA,
and look at the faces.
Miren las caritas.

When you like something you feel happy. Look for the happy face.
Take your pencil and make a circle around it.
Cuando les gusta algo, ustedes se sienten alegres. Busquen la cara alegre y hagan un círculo alrededor de la cara alegre.

When you don't like something you feel bad. Look for the unhappy and angry face and circle it.
Cuando no les gusta algo, se sienten tristes. Busquen la cara triste y enojada y hagan un círculo alrededor de esa cara.

TURN PAGE
PRÓXIMA PÁGINA

You are eating your favorite ice cream.
Aquí están comiendo "ice cream."
Circle the very happy face.
Hagan un círculo alrededor de la cara alegre.
Did you circle the face in the box?
¿Han puesto el círculo alrededor de la cara en el marco?
That face says "I like it very much."
Esta cara dice "Me gusta mucho."

TURN PAGE
PRÓXIMA PÁGINA

You are falling and going to hurt yourself and you feel sad.
Circle the unhappy face.
Aquí se están cayendo y se van a lastimar. Pongan un círculo alrededor de la cara triste y enojada.
Did you circle the face in the box?
¿Han puesto el círculo alrededor de la cara en el marco?
That face says "I don't like this."
Esta cara dice "Esto no me gusta."

TURN PAGE
PRÓXIMA PÁGINA

Instructions for "X" Booklet
Page 2

You are sitting with nothing to do. Circle the face in the box.
Aquí estan sentados sin hacer nada. Pongan un círculo alrededor de la cara en el marco.
That face says "I don't care."
Esta cara dice "Esto no me interesa."

TURN PAGE
PRÓXIMA PÁGINA

You are bouncing a ball and you like it a little. Circle the face in the box.
Aquí estan jugando con una pelota y les gusta un poco. Pongan un círculo alrededor de la cara en el marco.
That face says "I like it a little bit."
Esta cara dice "Me gusta un poquito."

Let's see if you can remember the faces.
Vamos a ver si recuerdan las caras.

TURN PAGE
PRÓXIMA PAGINA

Circle the face that tells how you feel about this.
Pongan un círculo alrededor de la cara que dice cuánto les gusta esto.
Did you circle the very happy face?
¿Han puesto un círculo alrededor de la cara alegre?

TURN PAGE

Circle the face that tells how you feel.
Pongan un círculo alrededor de la cara que dice cuánto les gusta esto.
Did you circle the unhappy face?
¿Han puesto el círculo alrededor de la cara triste y enojada?

TURN PAGE

Circle the face that tells how you feel.
Pongan un círculo alrededor de la cara que dice cuánto les gusta esto.

TURN PAGE

Circle the face.
Pongan un círculo alrededor de la cara.

Remember you have a striped shirt or dress and you are in most of the pictures.
Recuerden siempre que ustedes tienen la camisa o el vestido rayado.

Instructions for "X" Booklet
page 3

TURN PAGE

On each page circle the face that tells how you feel about what you are doing.
En cada página pongan un círculo alrededor de la cara que dice cuánto les gusta lo que están haciendo.

Do every page in the book.
Háganlo en todas las páginas.

(After one minute)
Remember, you have a striped shirt or dress. See what you are doing and circle the face that tells how you like doing that.
Recuerden que ustedes tienen el vestido o la camisa rayada. Miren lo que están haciendo en cada cuadro y pongan un círculo alrededor de la cara que dice cuánto les gusta esto.

INSTRUCTIONS FOR "Y" BOOKLET

Here is a new book.
Aquí hay otro librito.

This is you. You have a striped shirt or dress.
Tú tienes la camisa o el vestido rayado.

TURN PAGE.
PRÓXIMA PAGINA.

Look at the two pictures.
Miren los dos cuadros.

It is cold and raining.
Hace frío y está lloviendo
In one picture you have a rain coat and hat to keep dry. In the other picture you do not have a coat or hat and will get wet.
En un cuadro tienen un sobretodo y un sombrero para que no se mojen. En el otro cuadro no tienen el sobretodo o el sombrero y se van a mojar.

Draw a line under the picture you like best.
Pongan una línea debajo del cuadro que les gusta más.

Go on to the next page.
Continúen en la próxima página.
Look at what you are doing, and draw a line under the picture you like best.
Miren lo que están haciendo, y pongan una línea debajo del cuadro que les gusta mas.

On each page draw a line under the picture you like best.
En cada página pongan una línea debajo del cuadro que les gusta más.

Do every page in the book.
Háganlo en todas las páginas del librito.

(After one minute) Remember you have a striped shirt or dress and you are in most of the pictures.
Recuerden que tienen la camisa rayada o el vestido rayado, y que ustedes están en casi todos los cuadros.

APPENDIX C

Name _____

Name _____

i

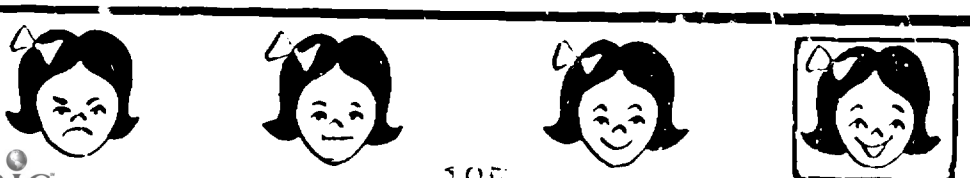



i



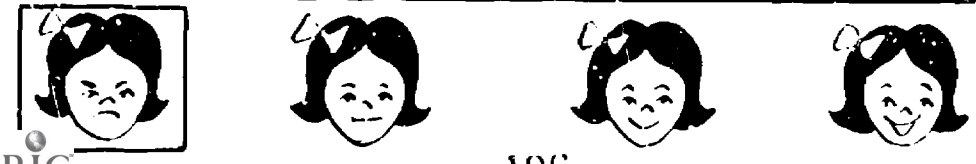

ii

ii



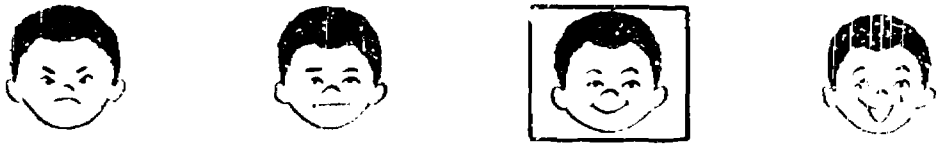
iii

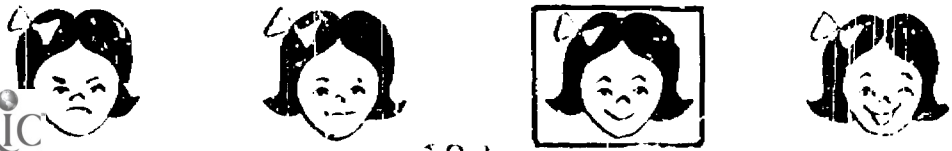
iii



iv

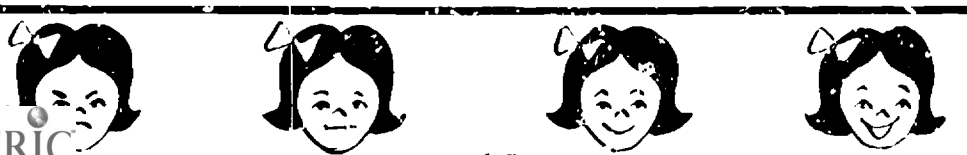
iv





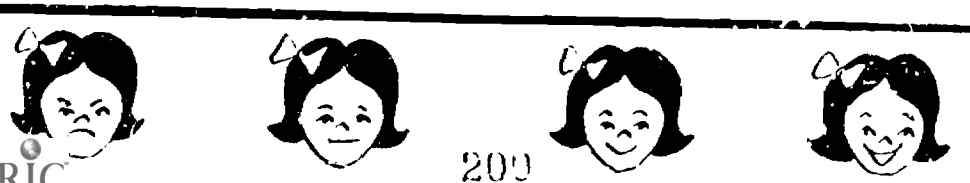
vi

vi



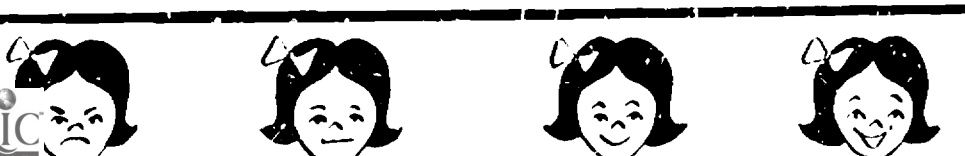
vii

vii



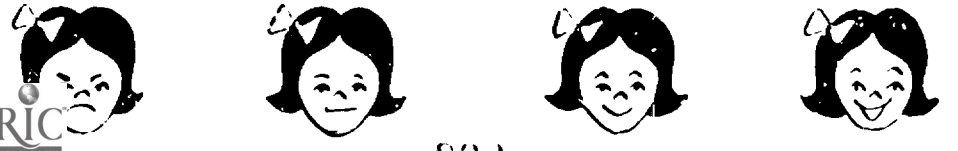
viii

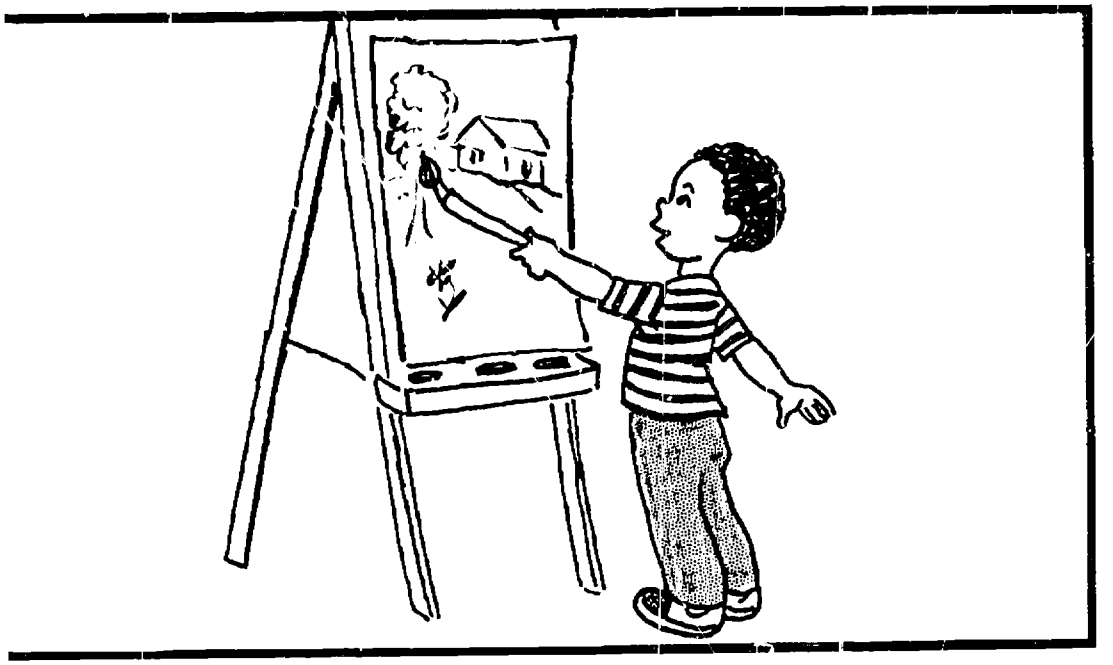
viii



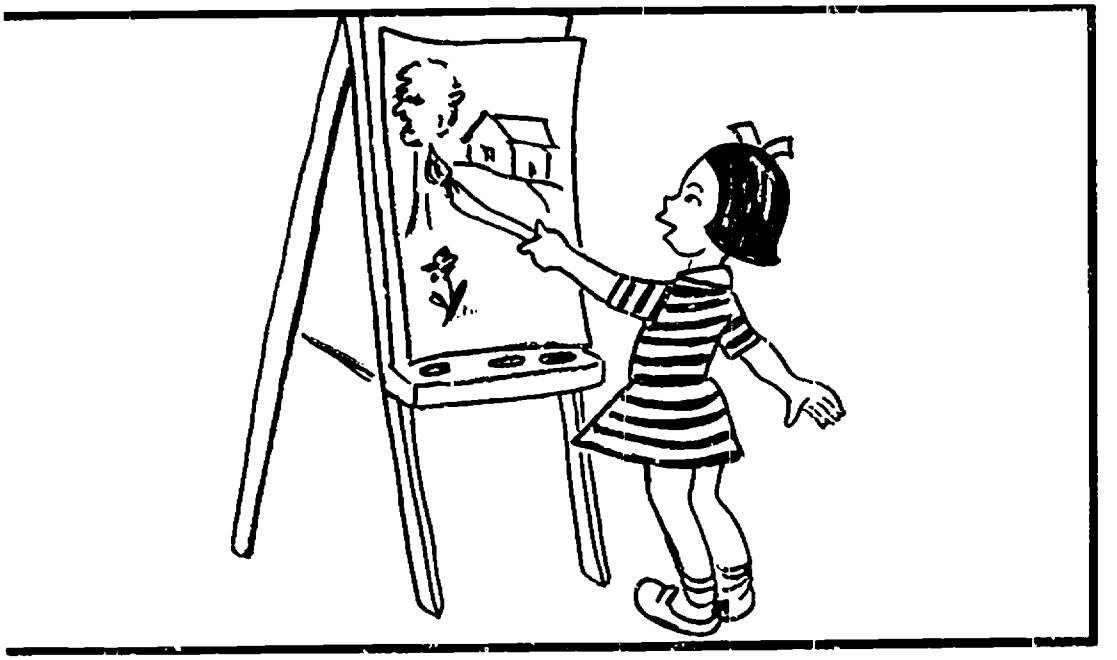
ix

ix

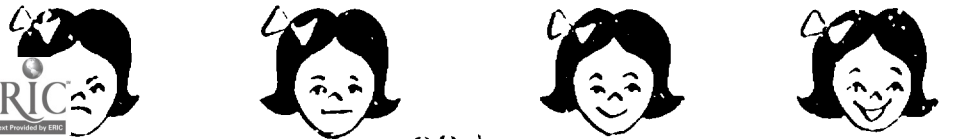


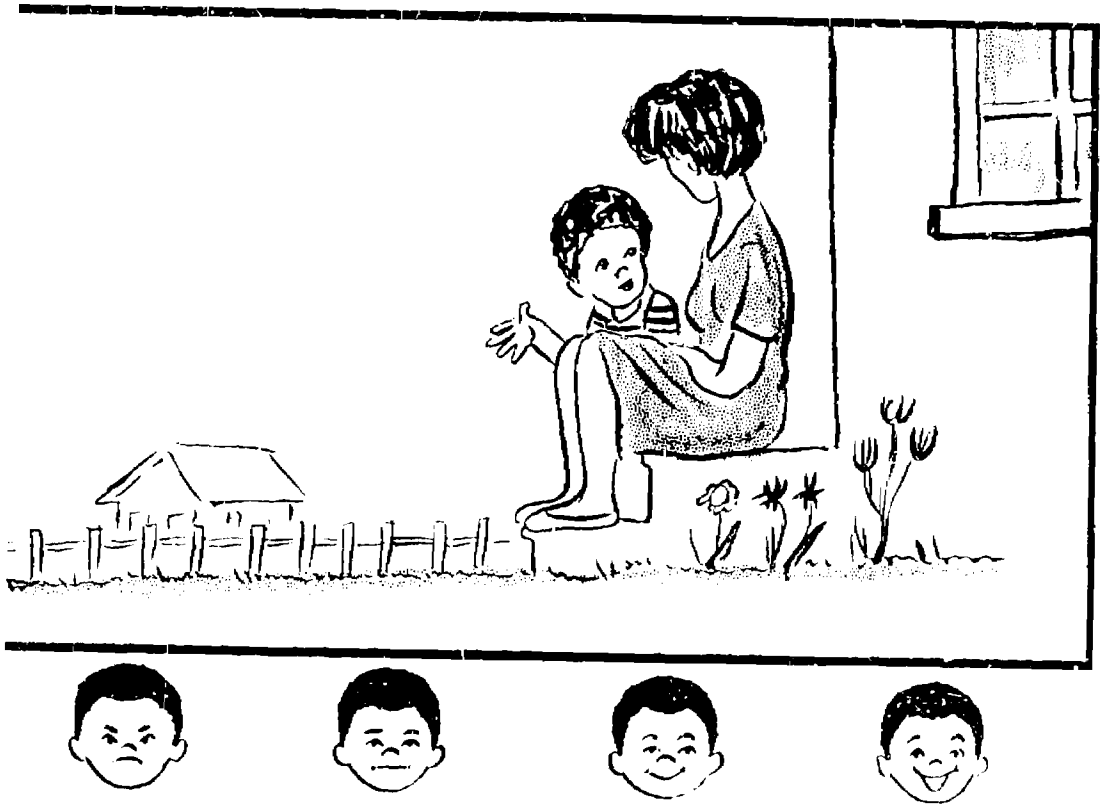


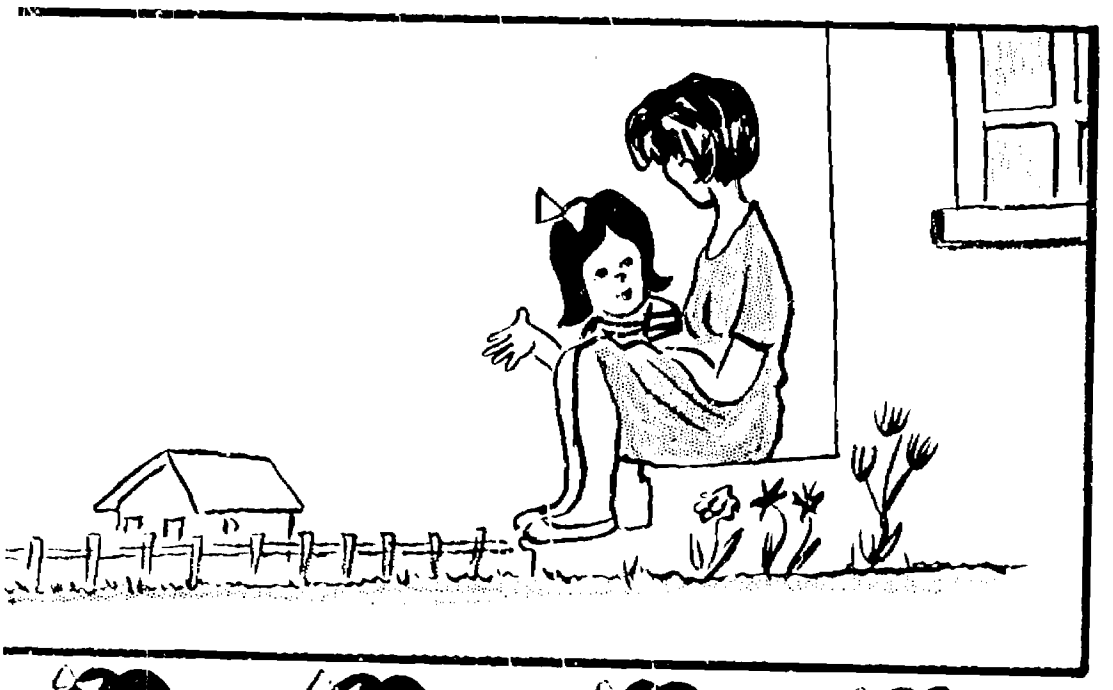
1

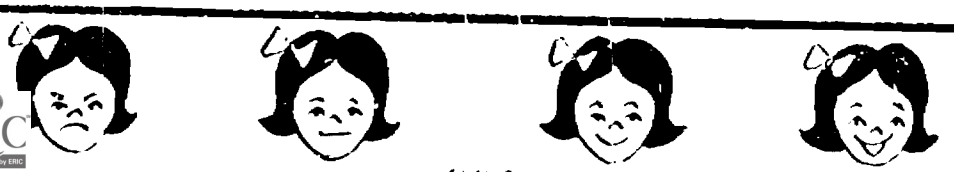


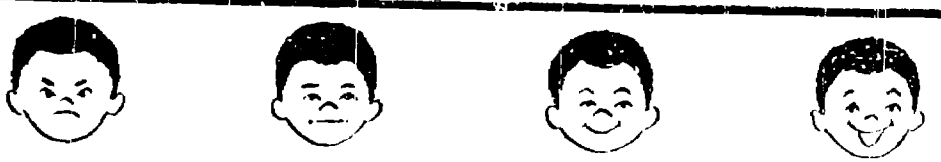
1





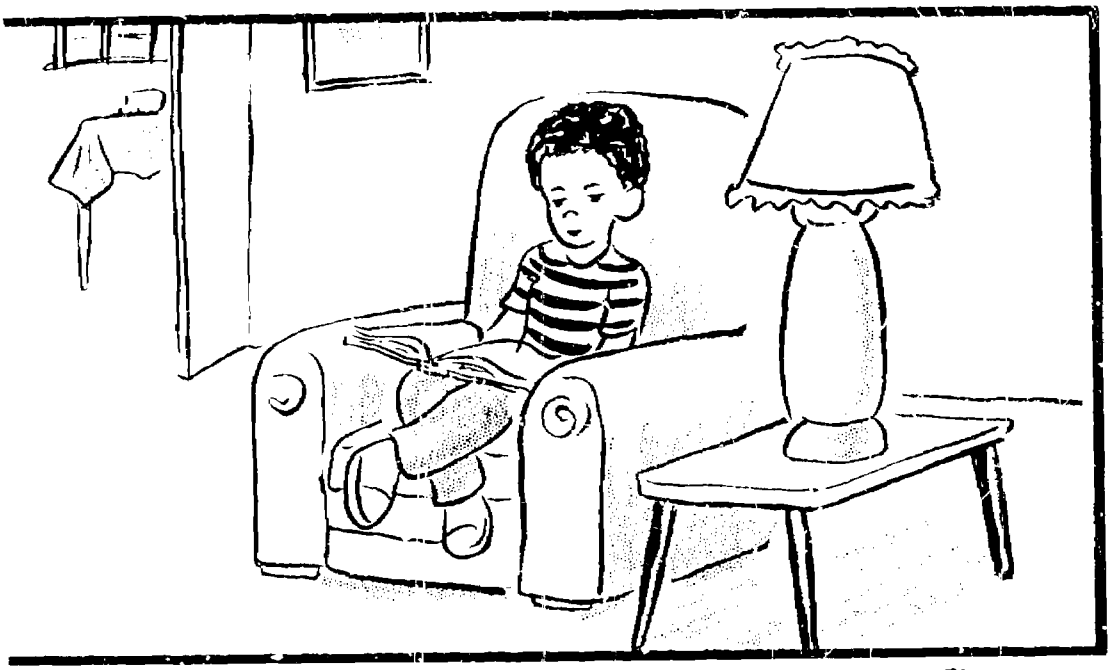






3

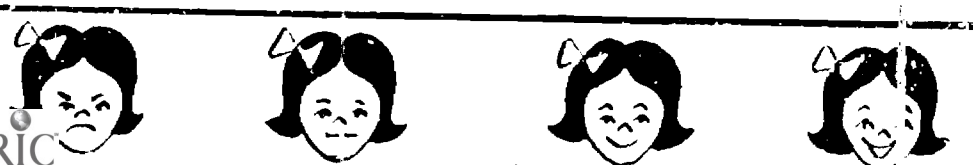
4



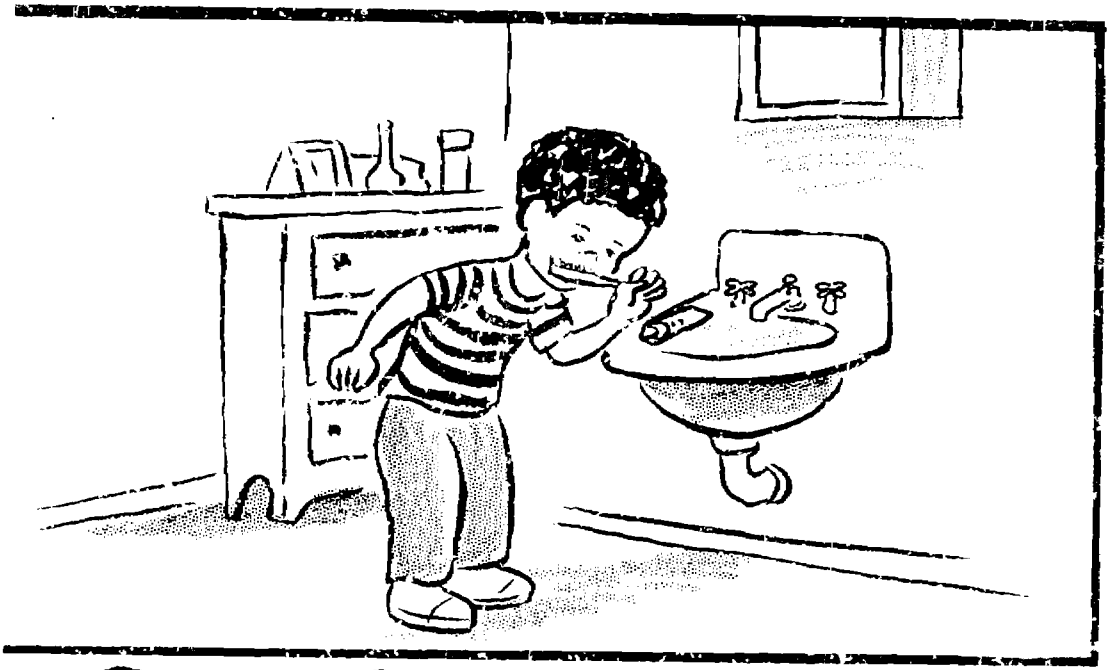
4

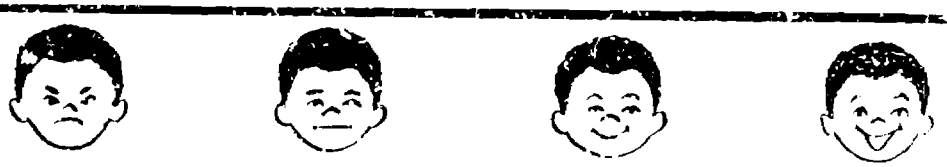
5

5

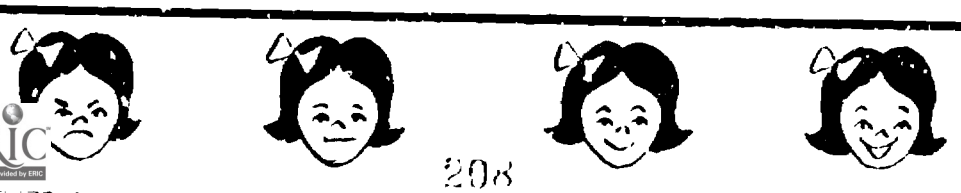


6



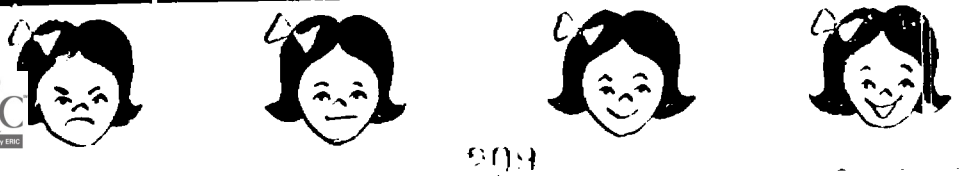


6



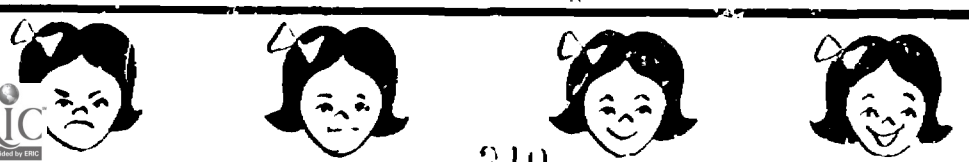
7

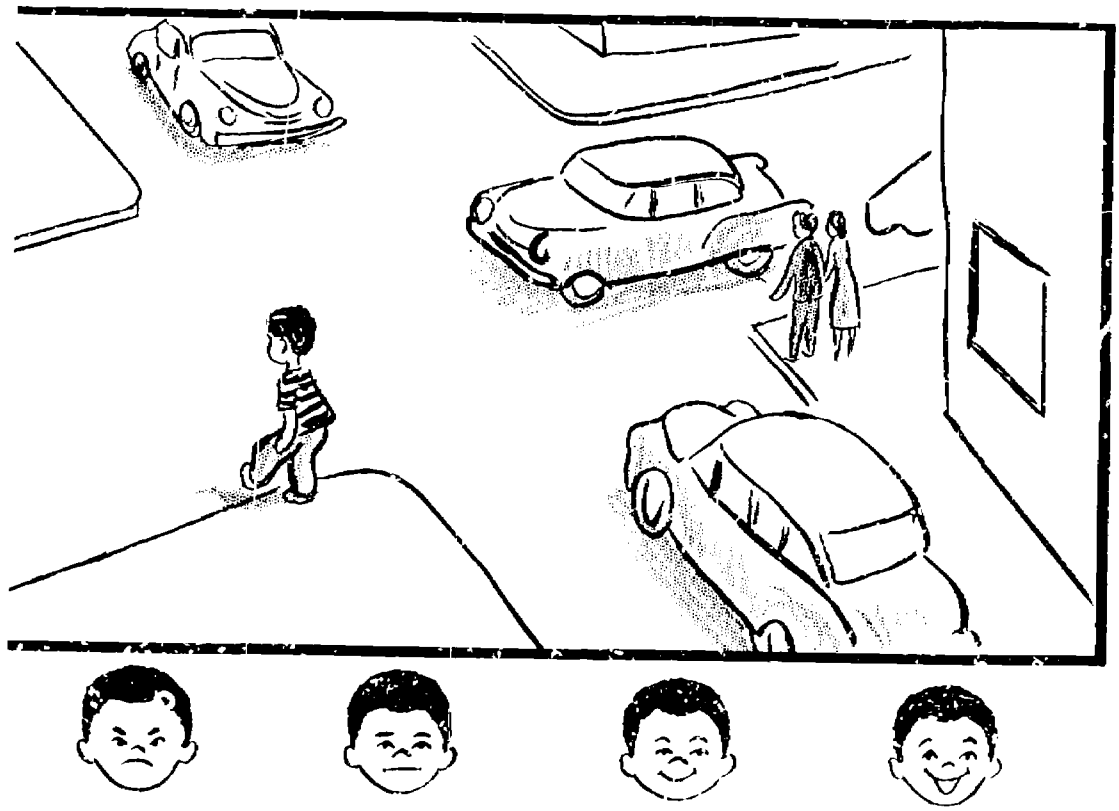
7



8

8

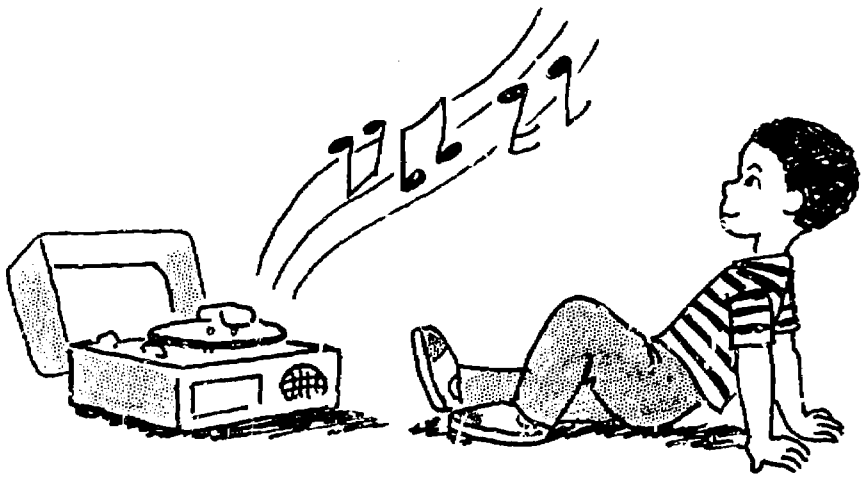




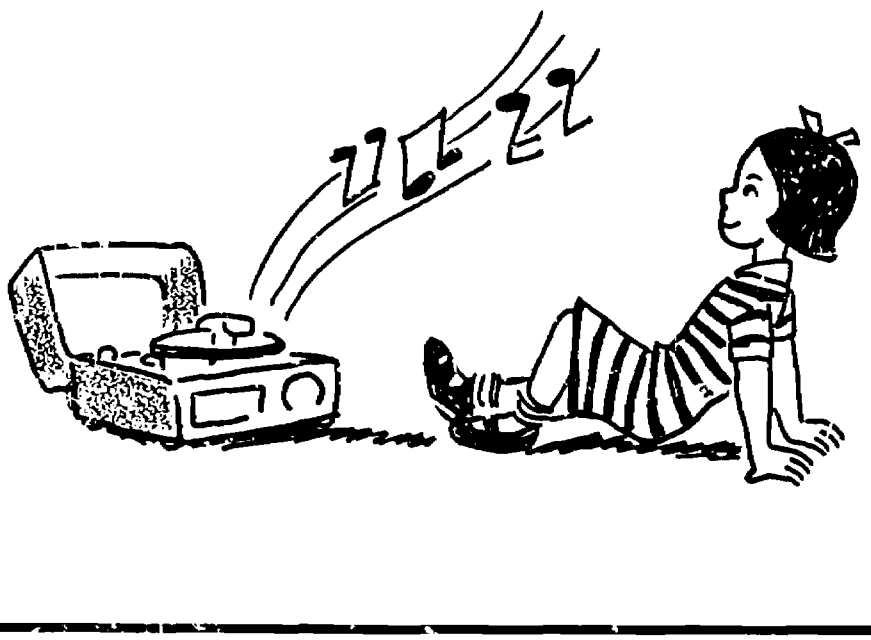
9

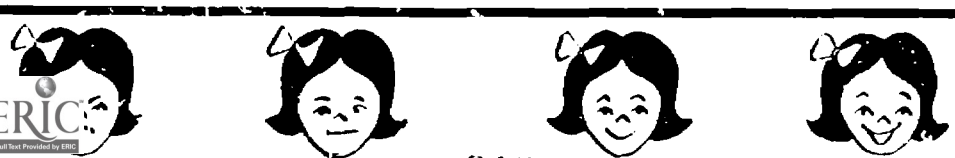
9

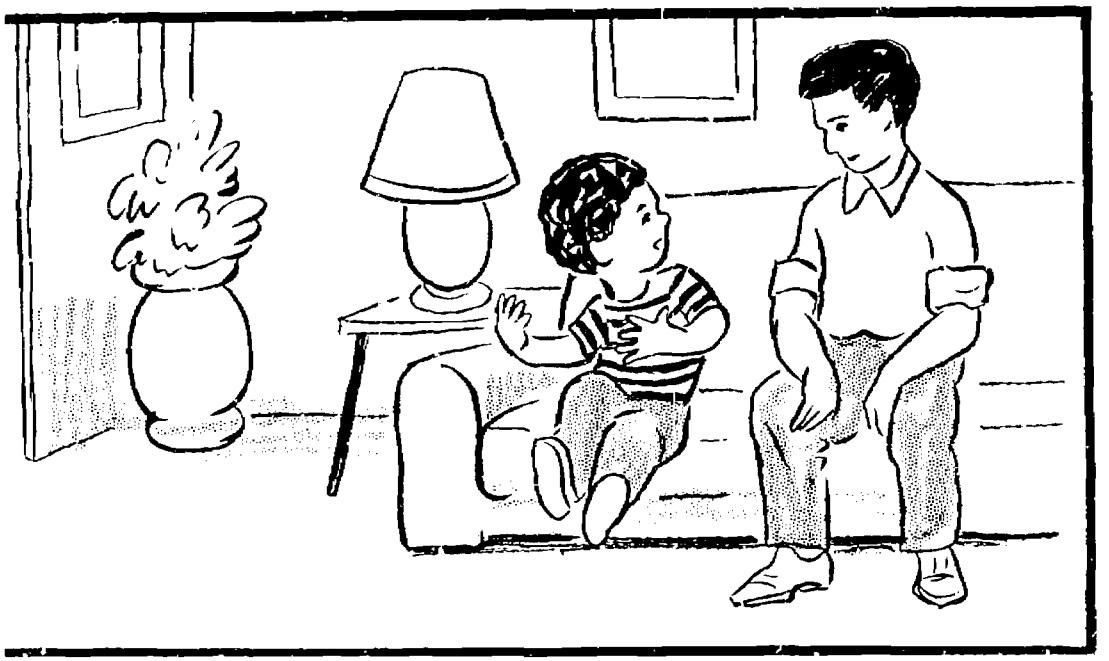
10



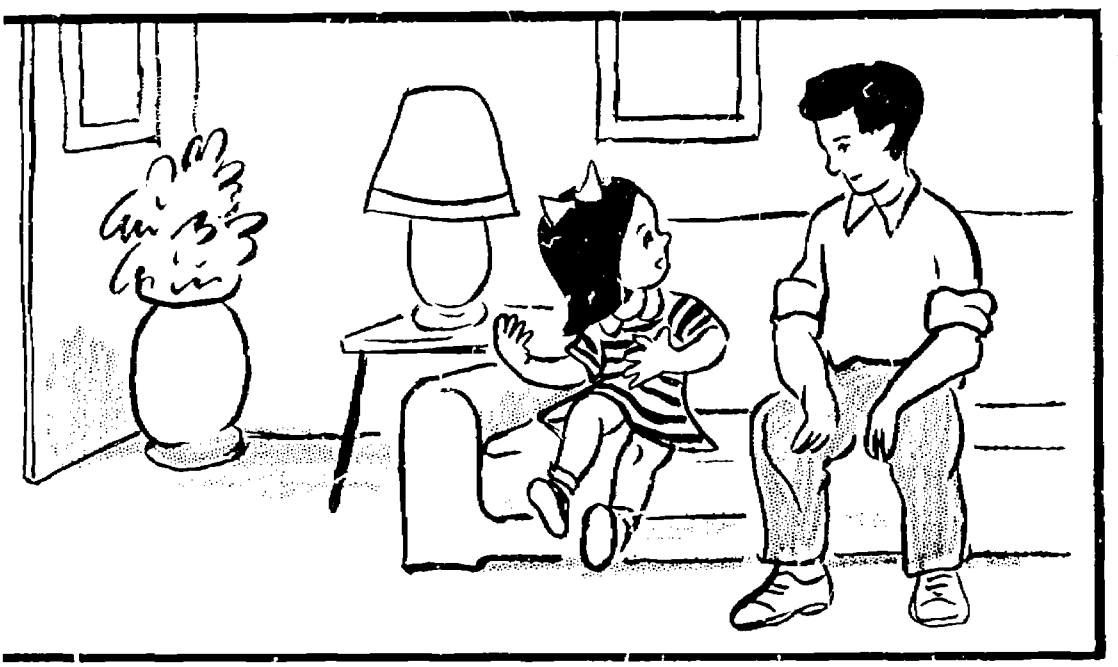
10



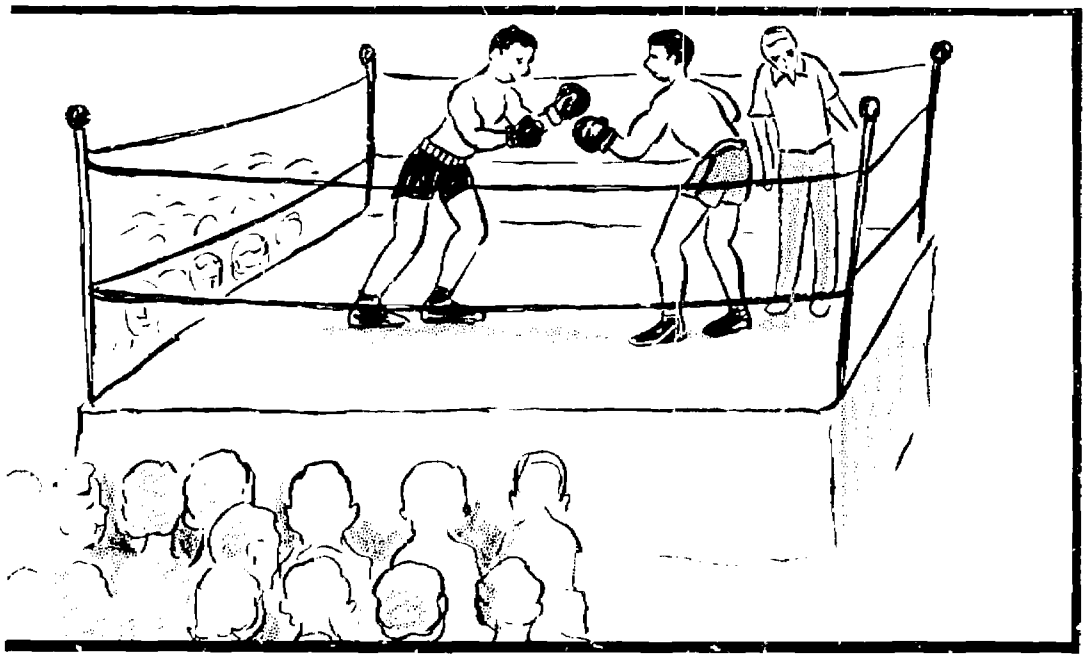




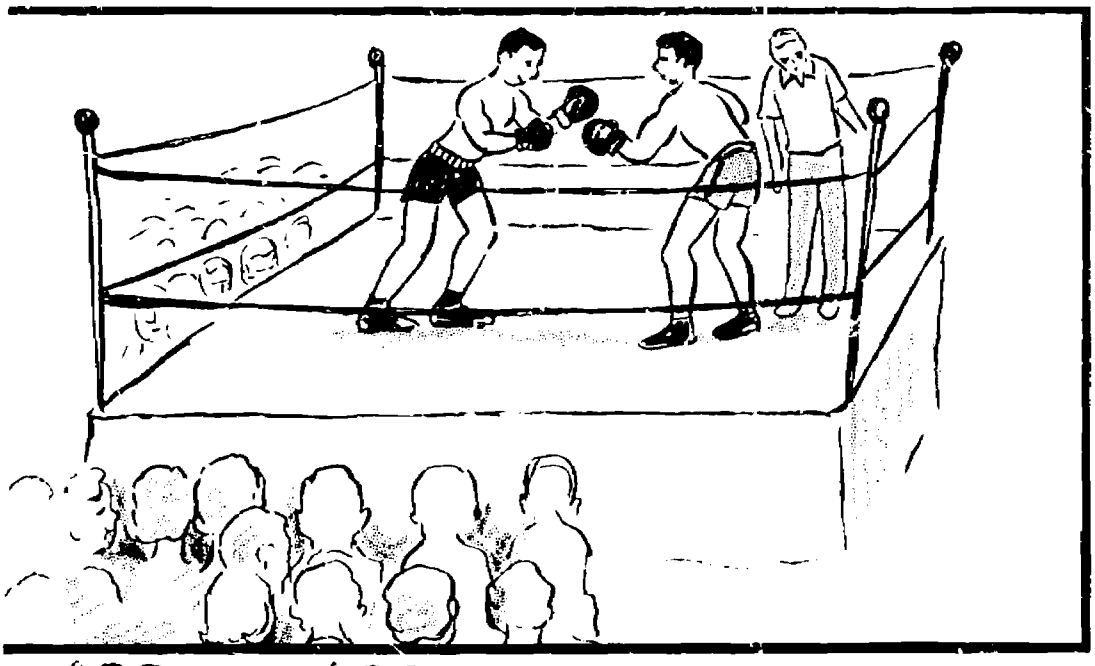
11



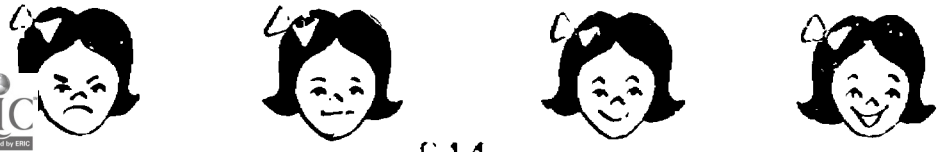
11



12

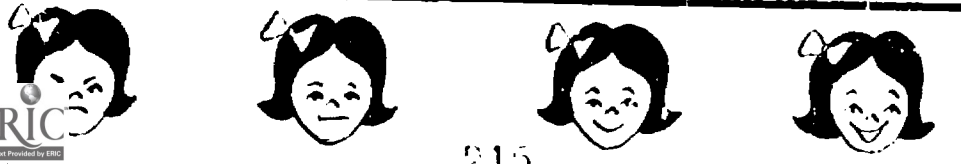


12

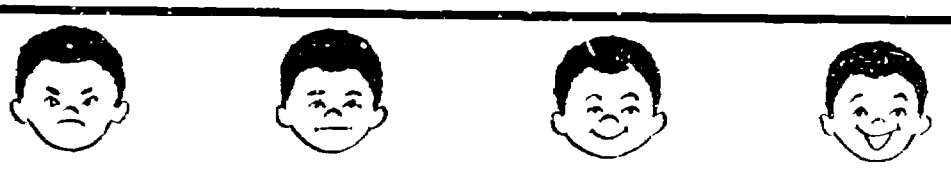


13

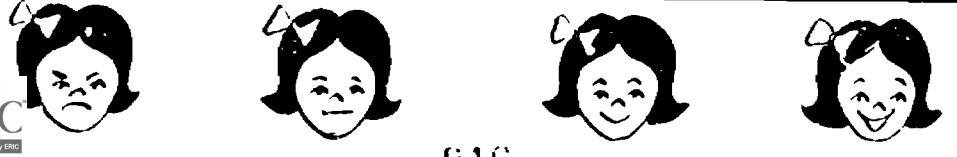
13



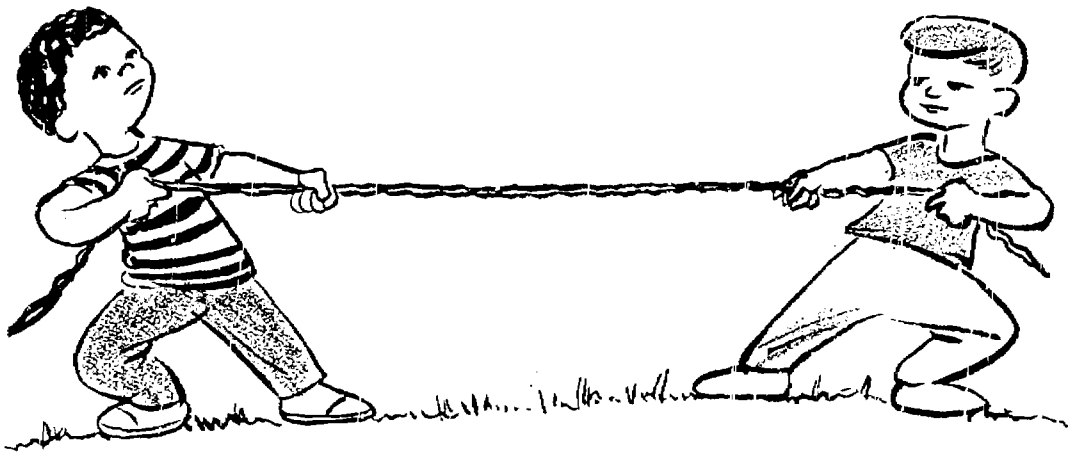
14

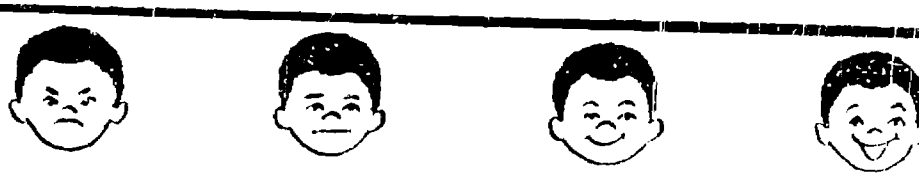


14

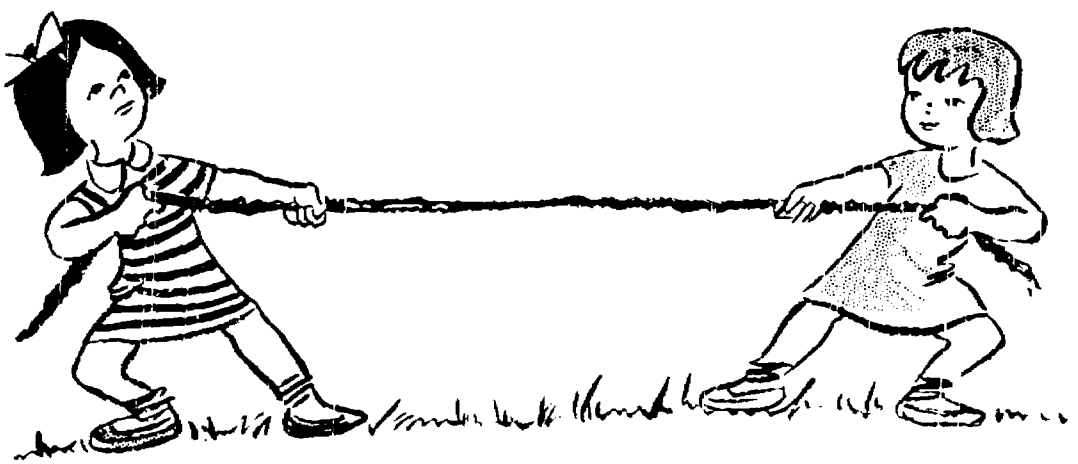


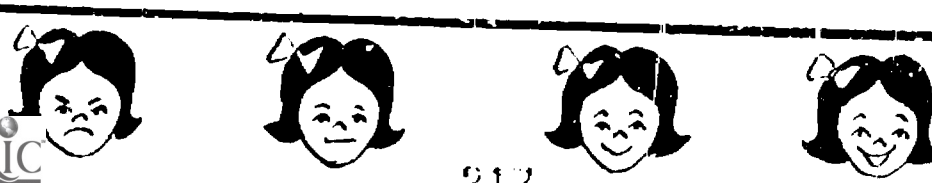
15





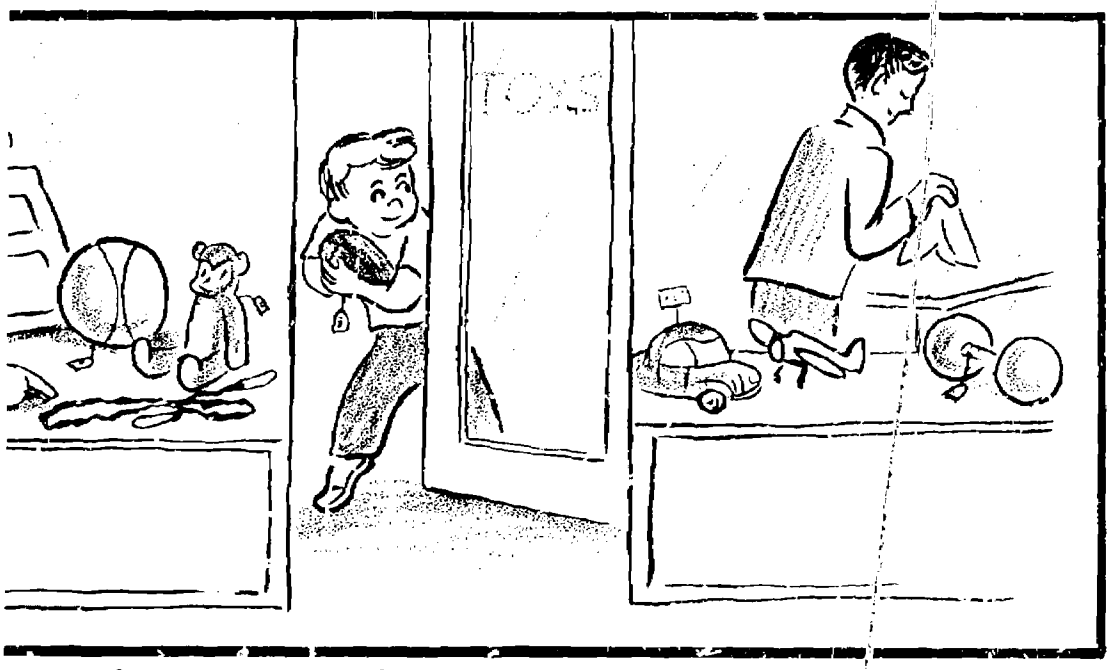
15



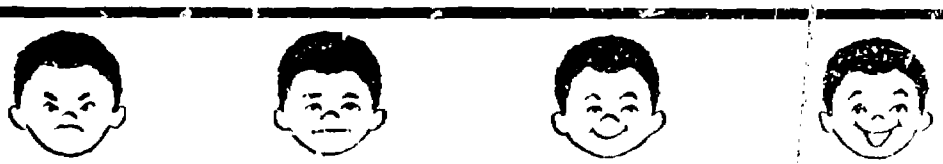


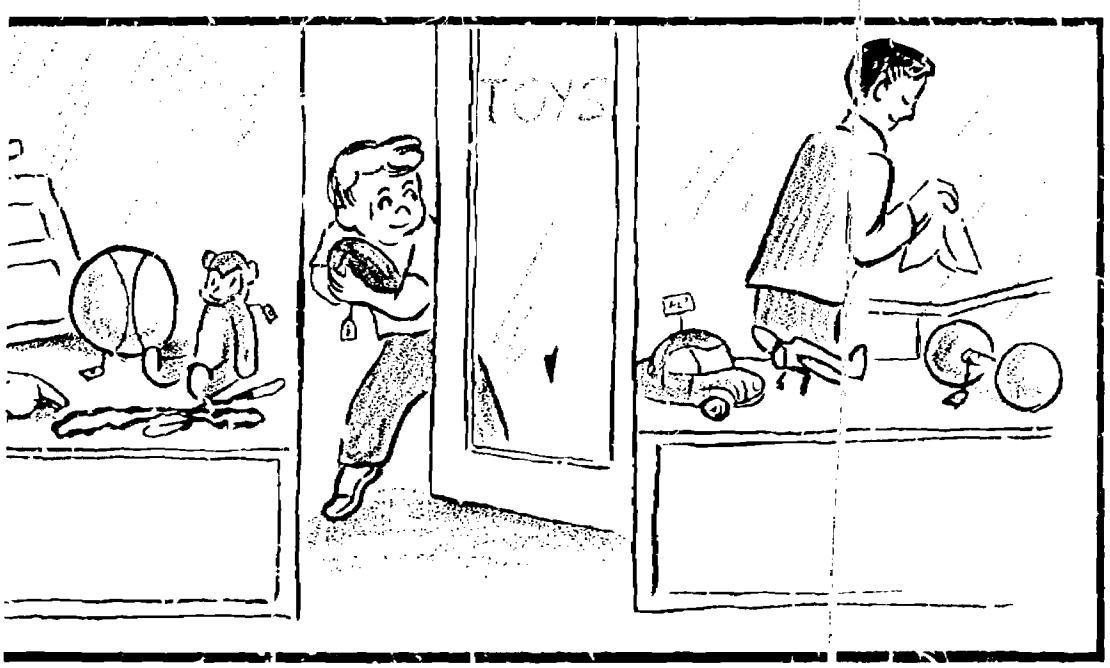
16

16

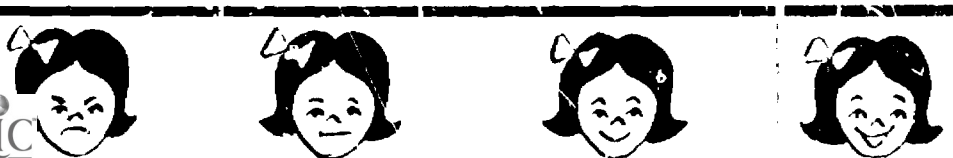


17

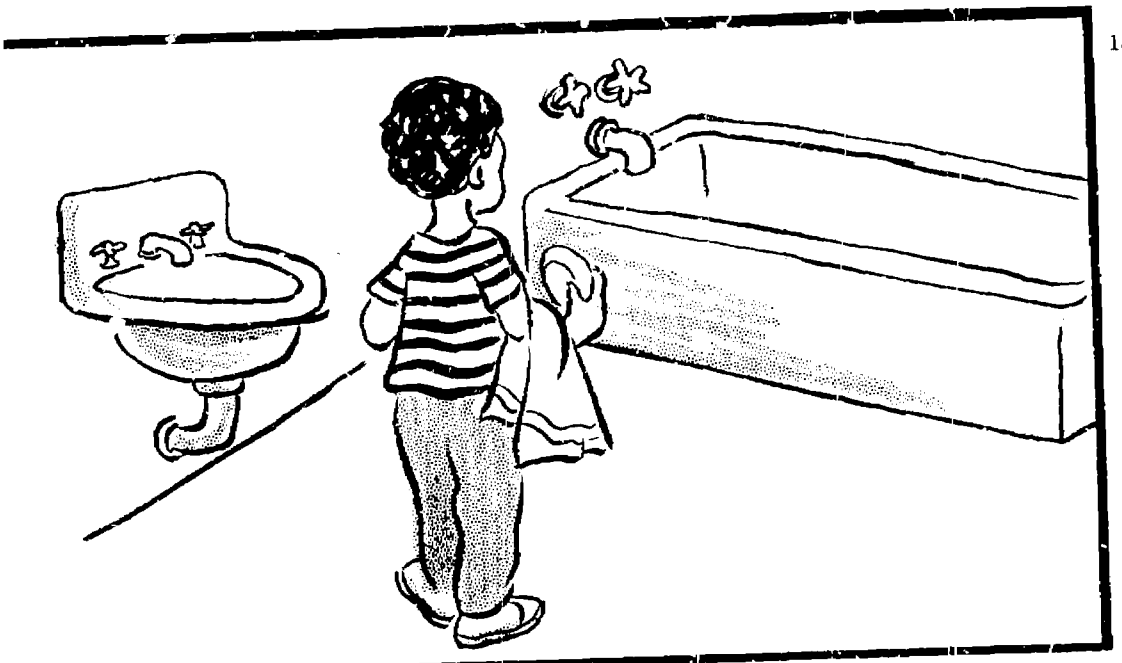




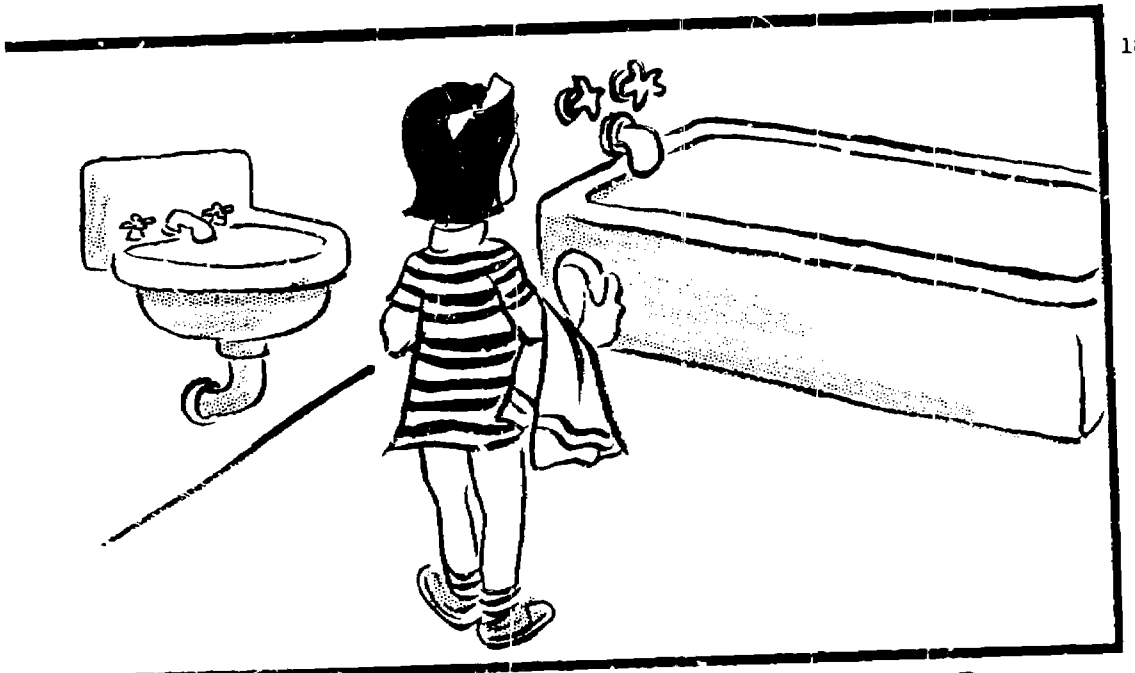
17



18

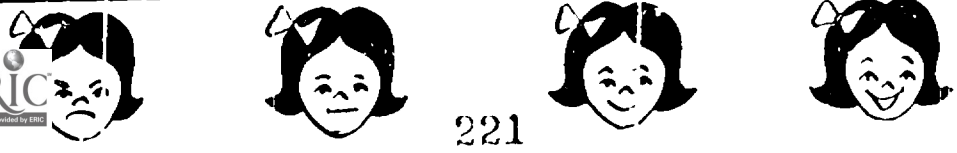


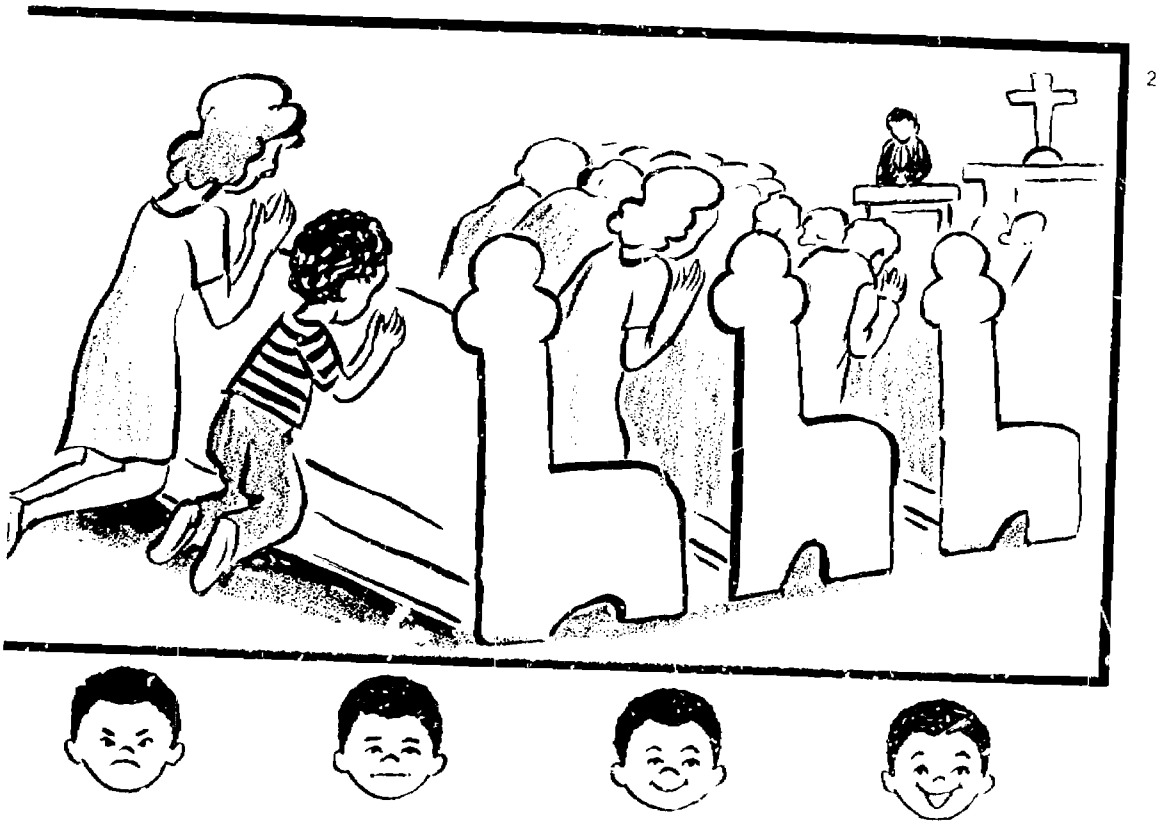
18



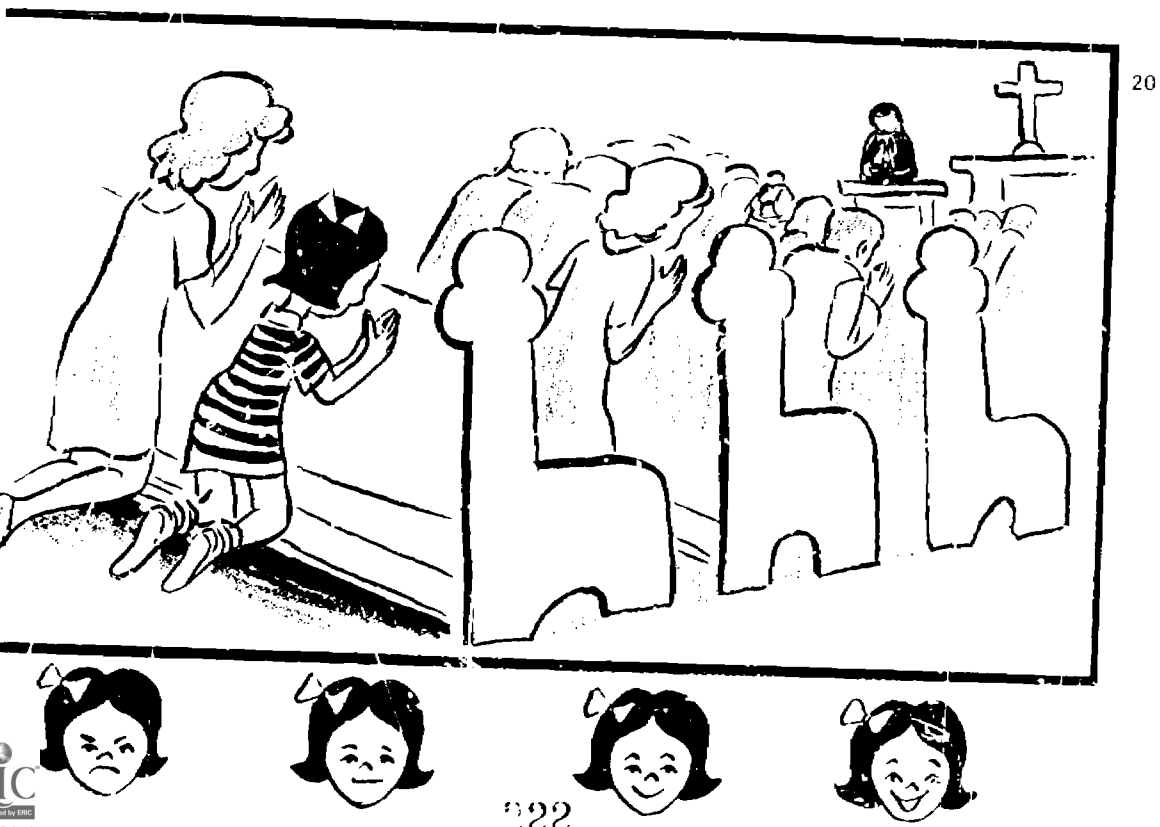
19

19



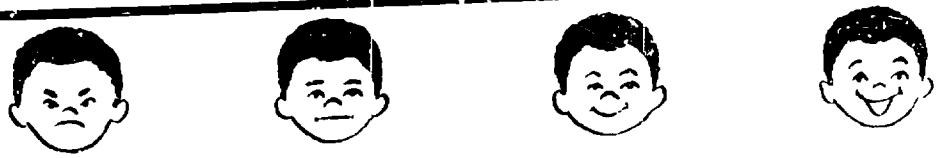


20

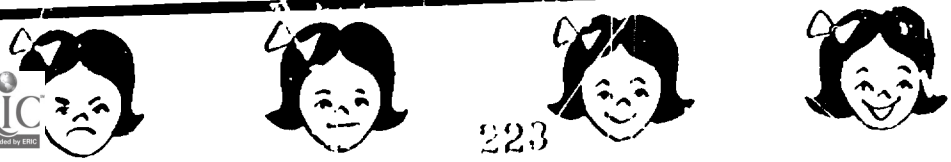


20

21

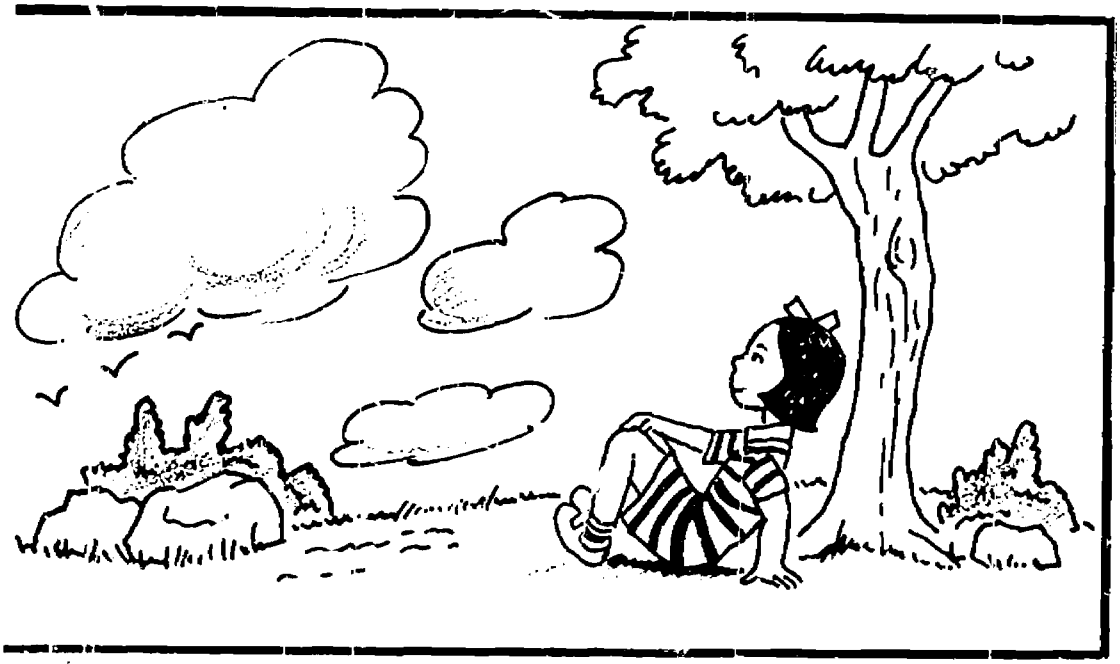


21



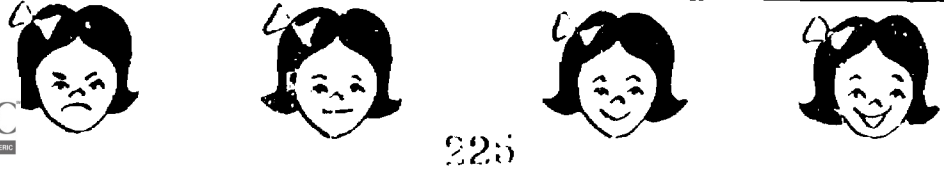
22

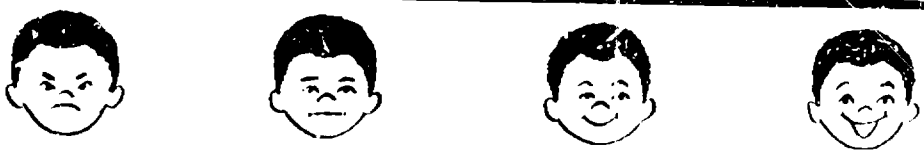
22



23

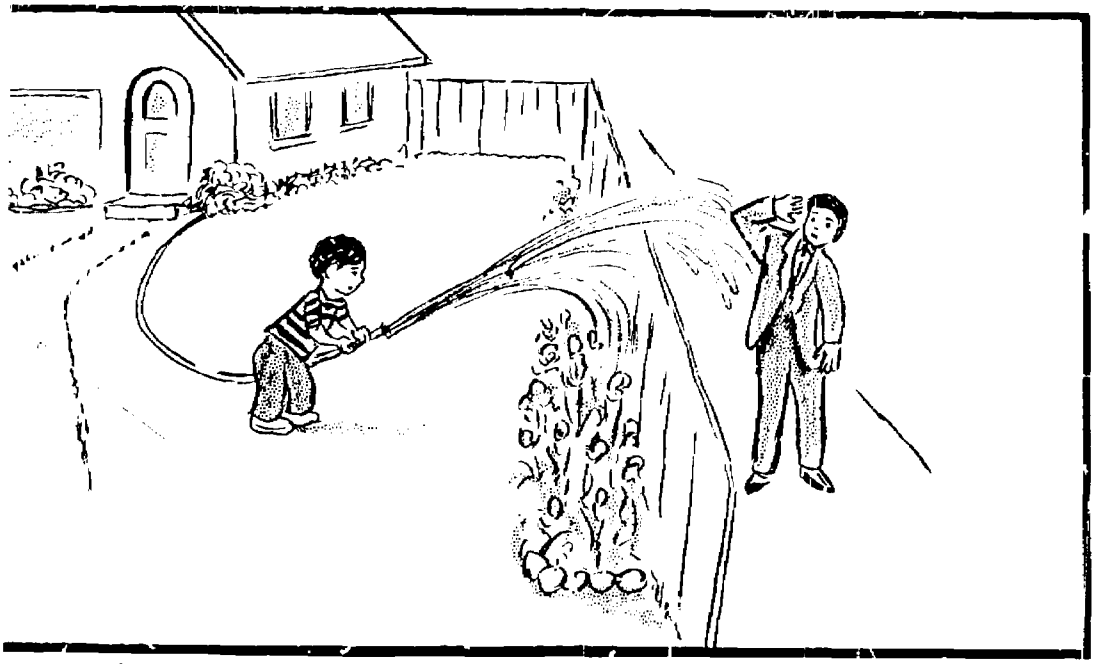
23



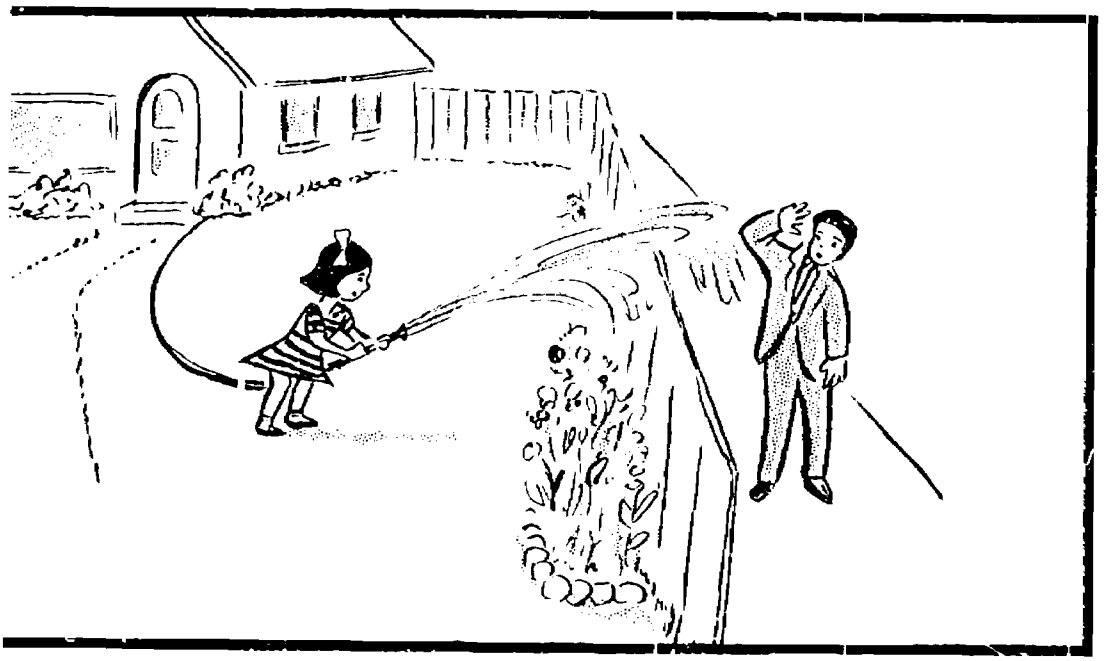


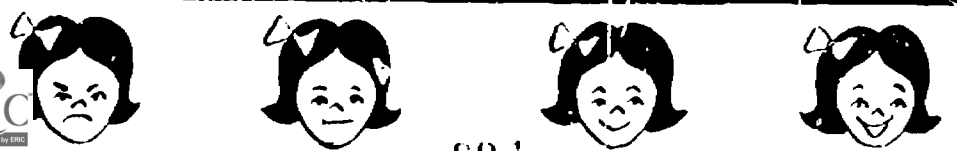
24

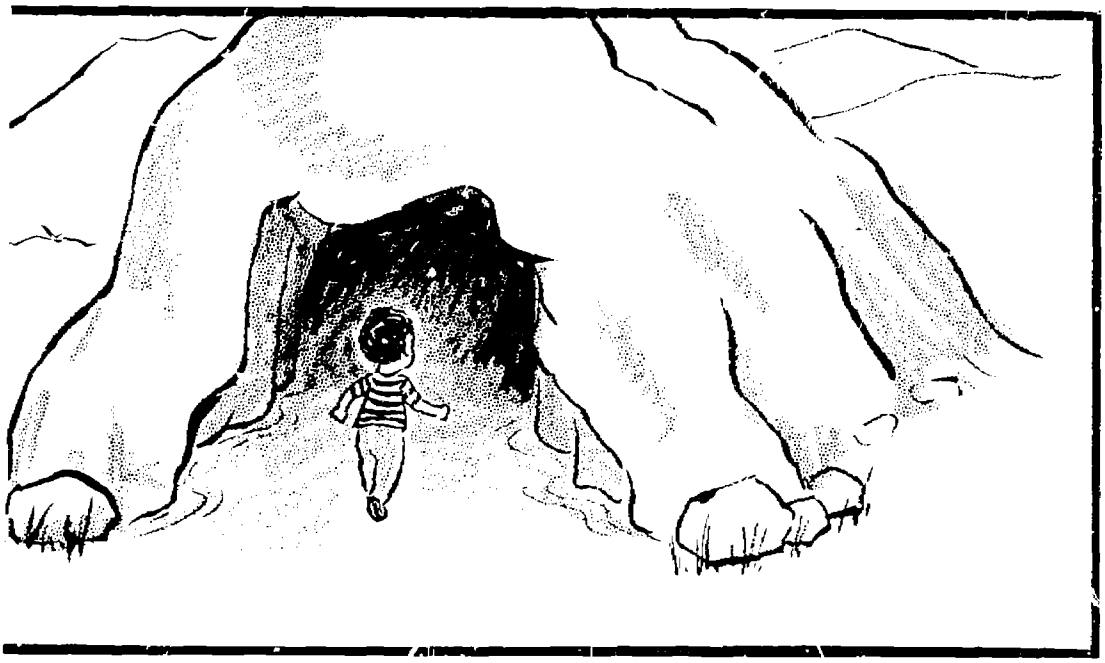
25



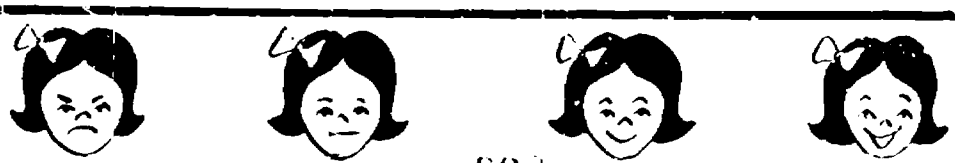
25



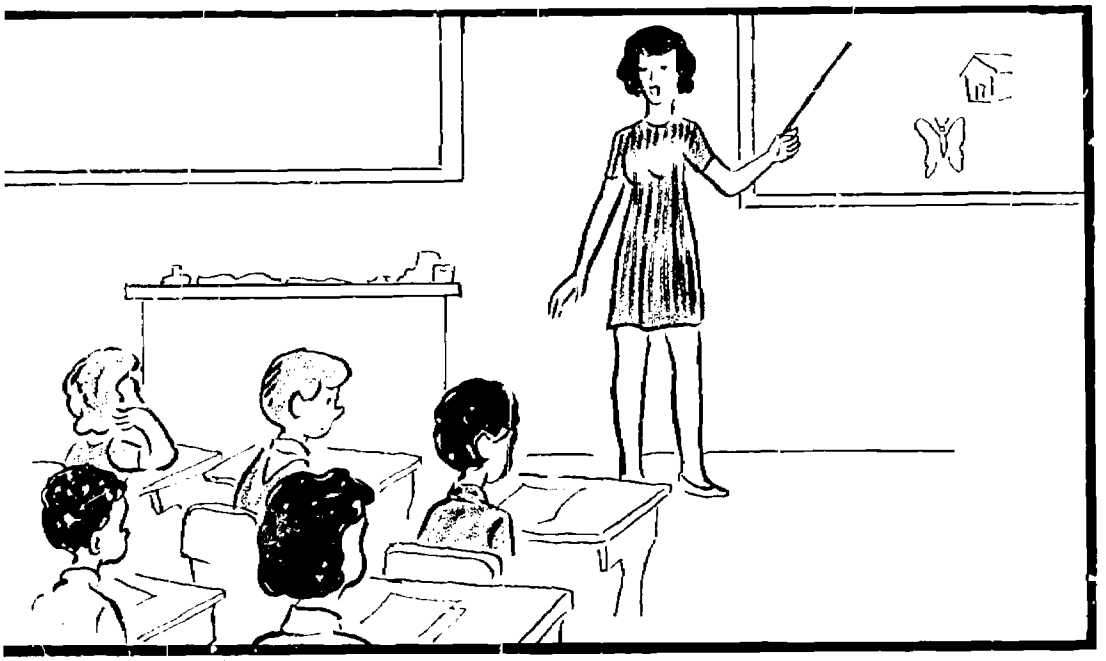




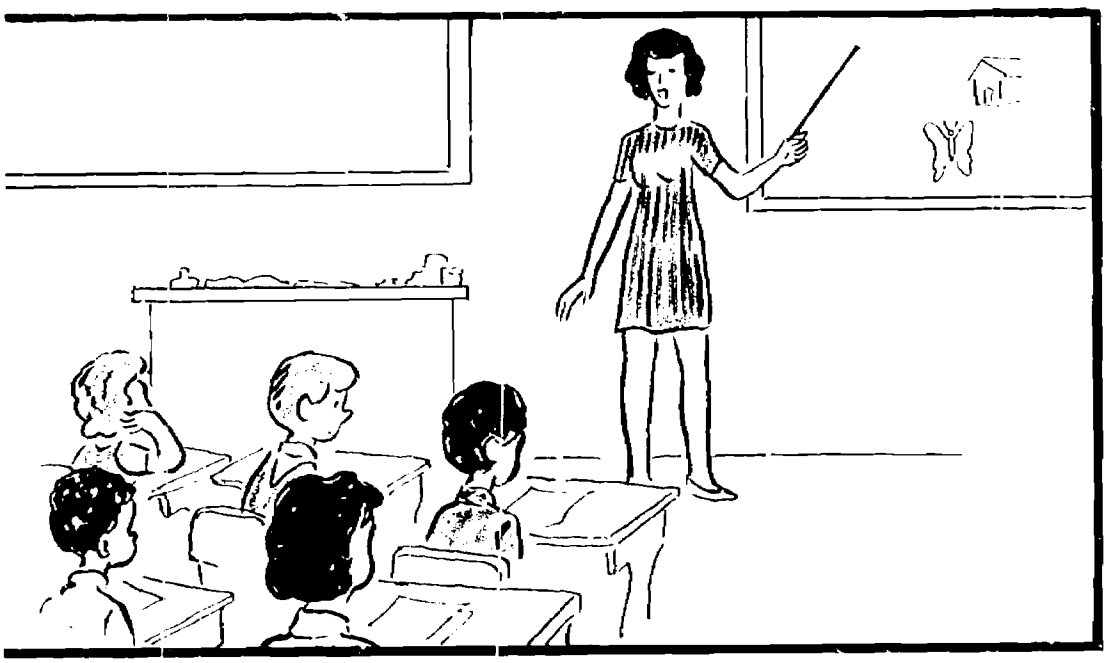
26

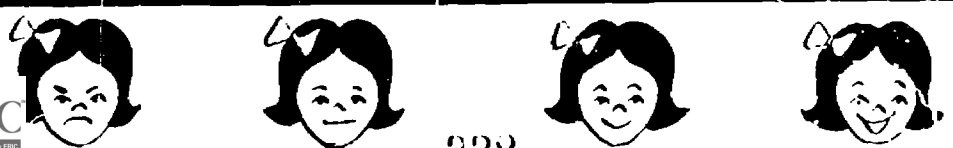


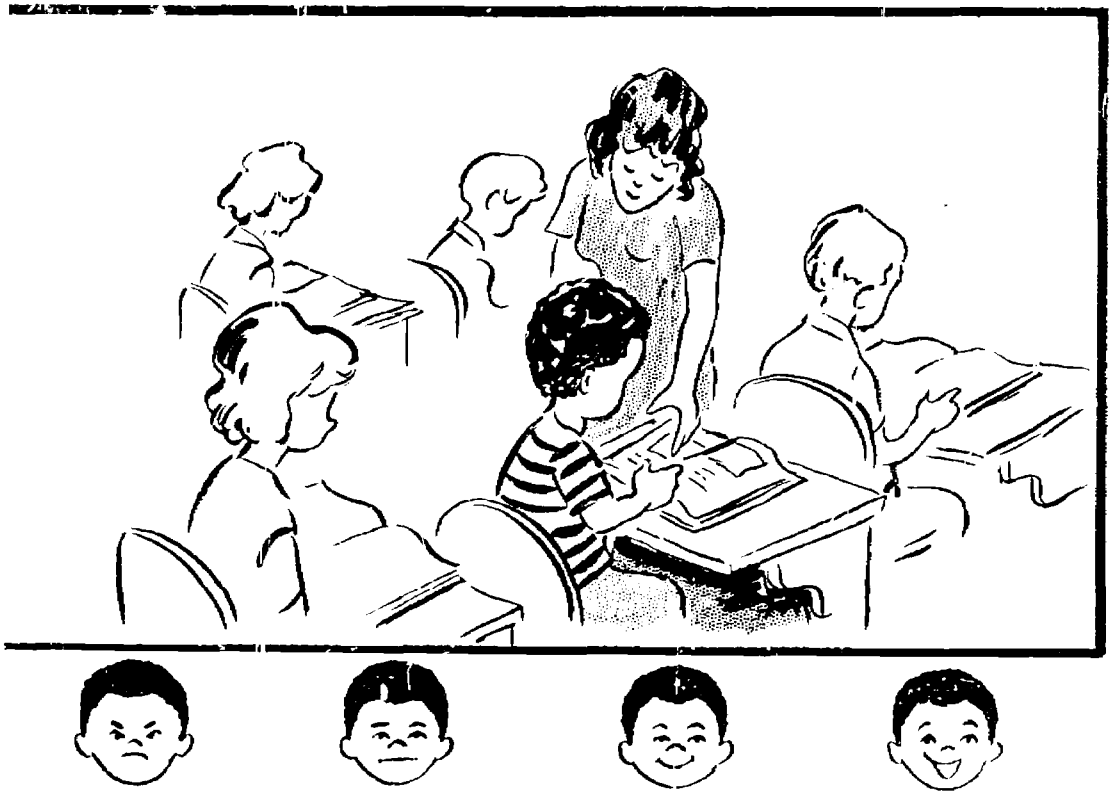
27



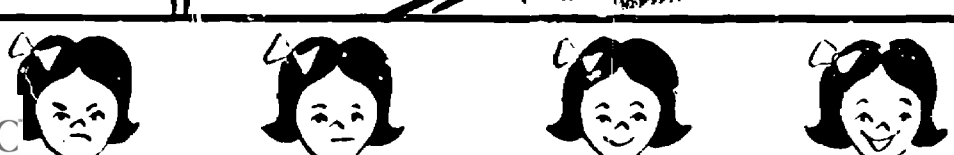
27





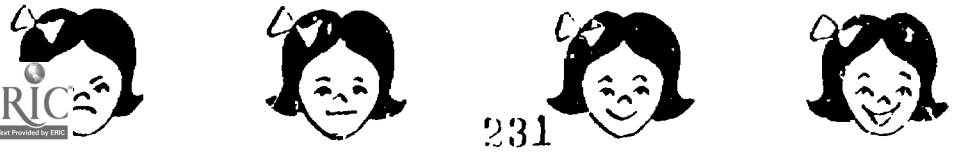


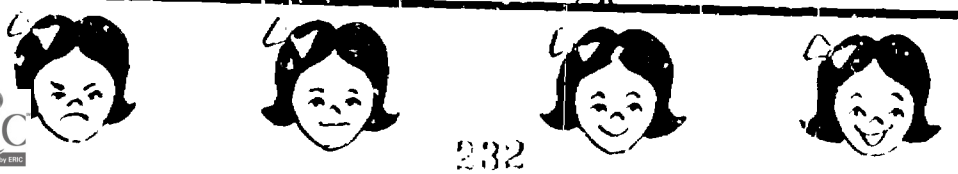
28



29

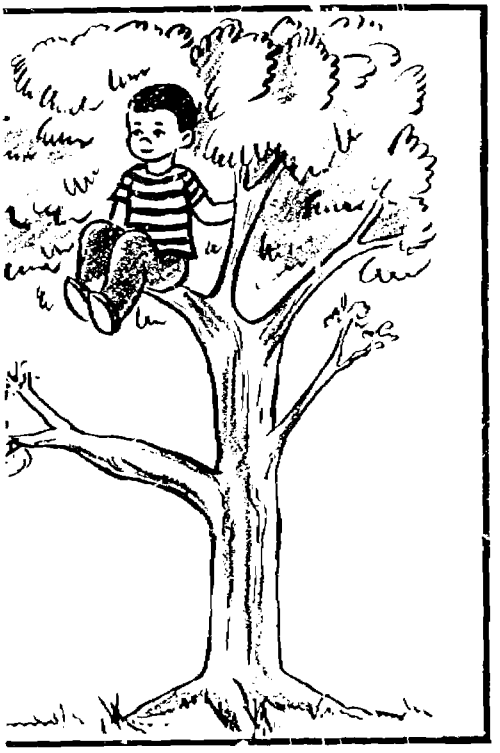
29

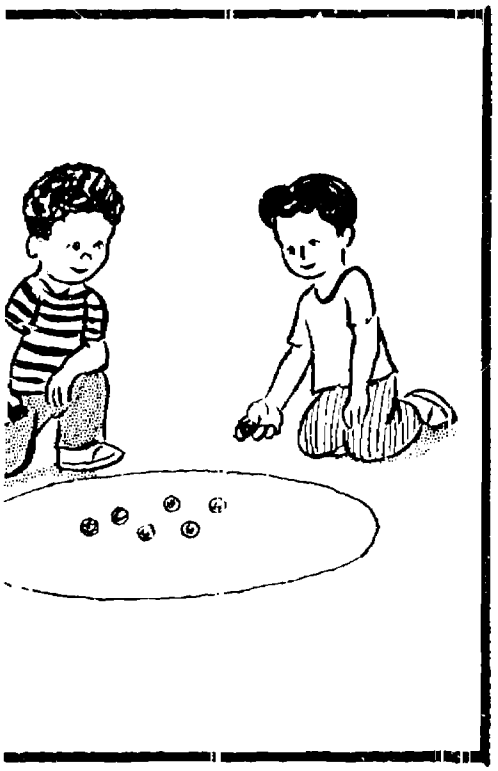




Name _____

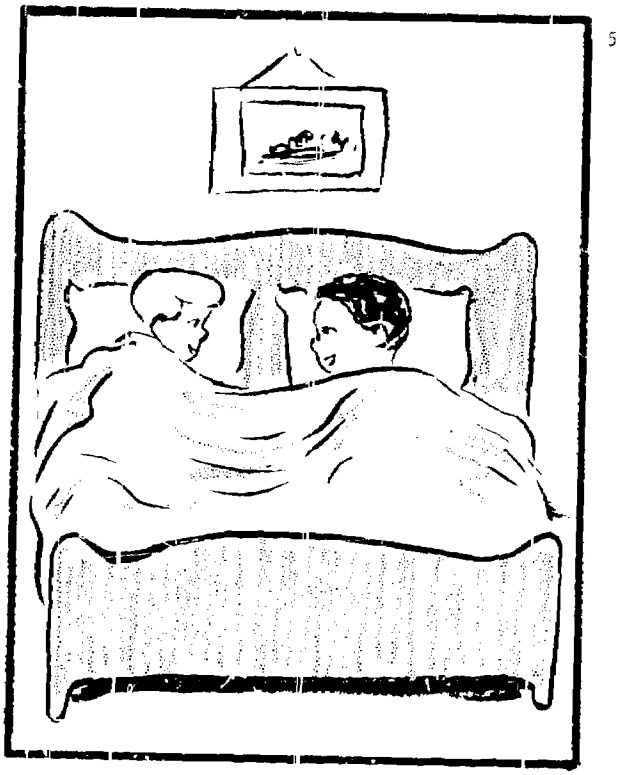
Name _____





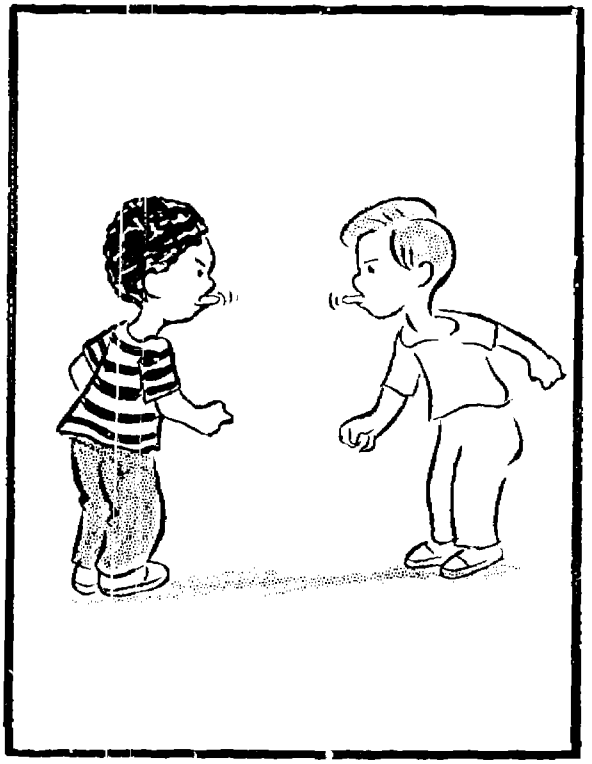
4

4



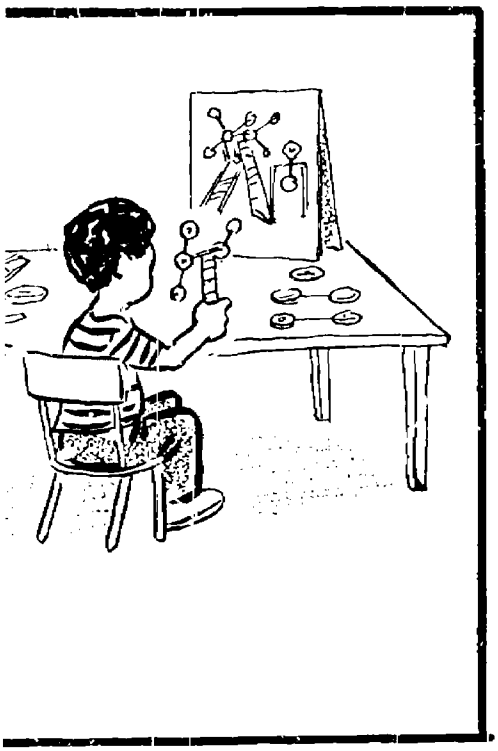
5

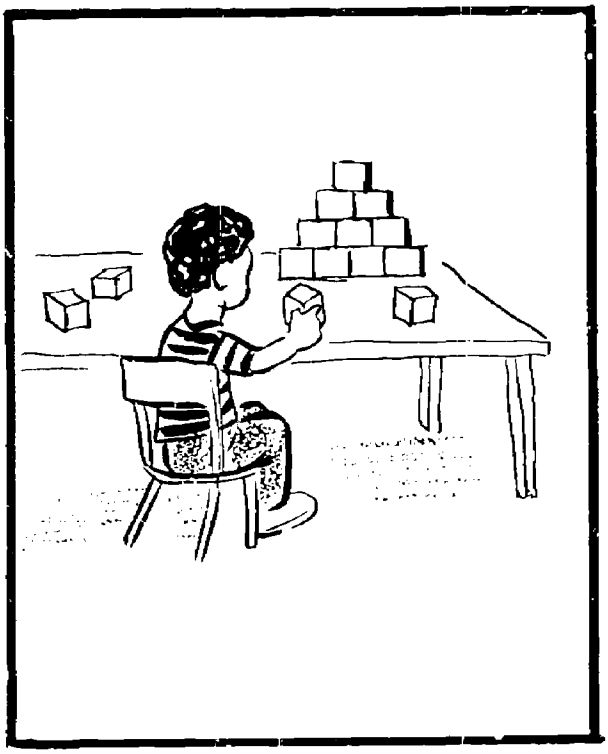
5

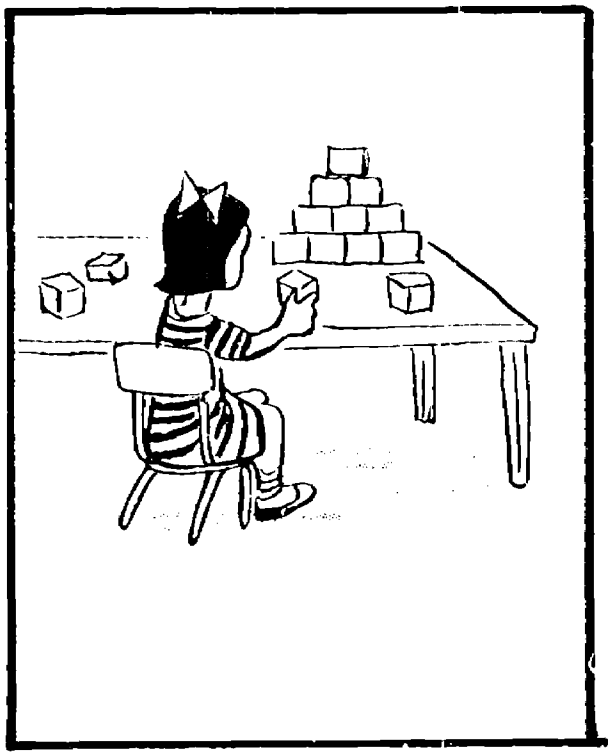


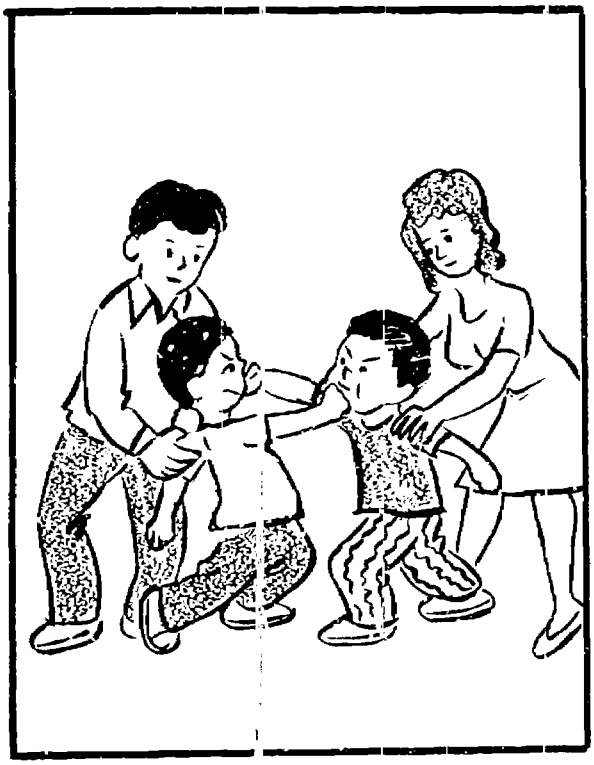
6

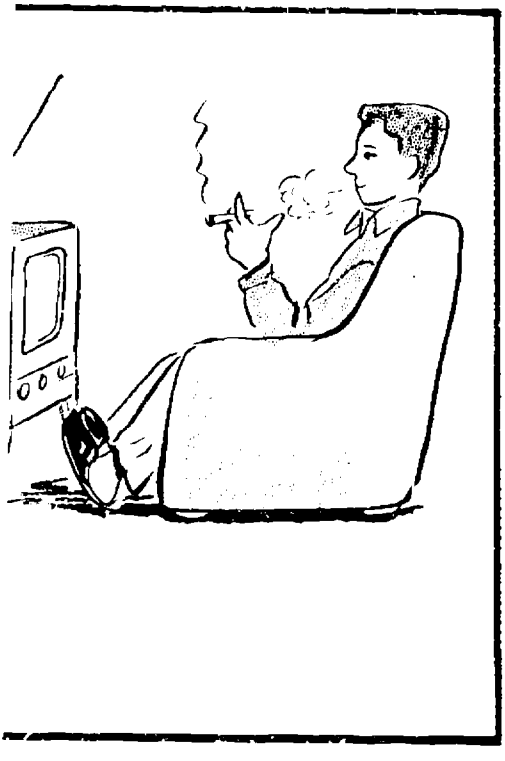
6

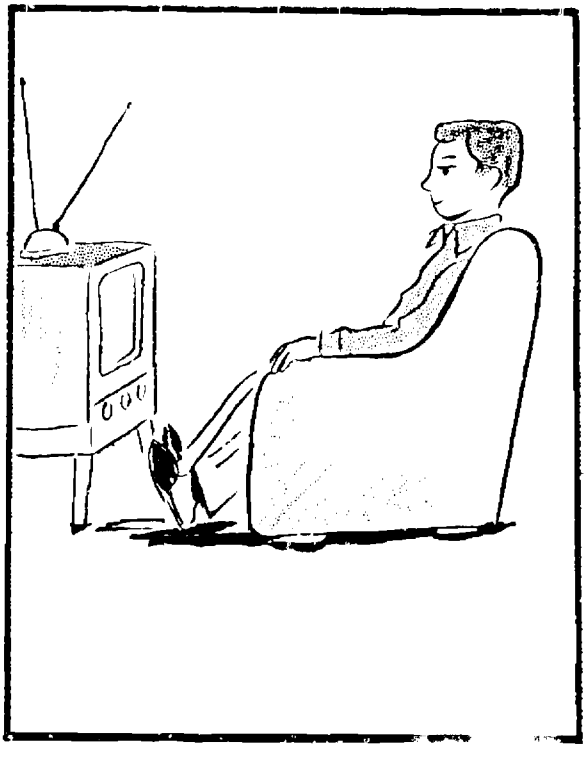


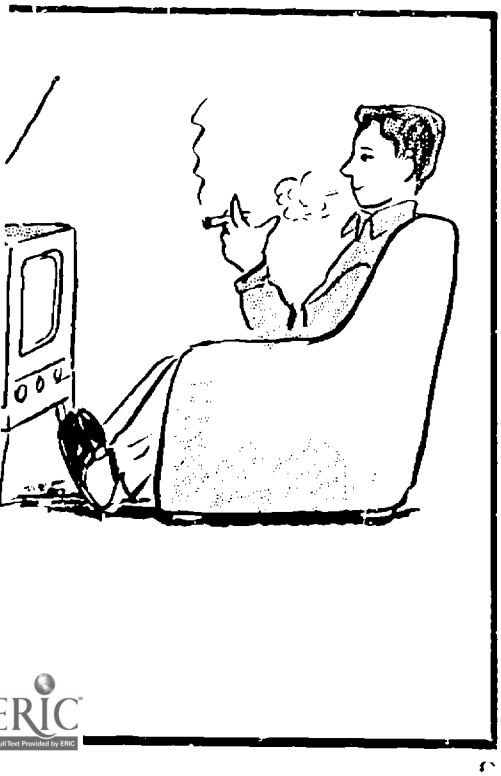


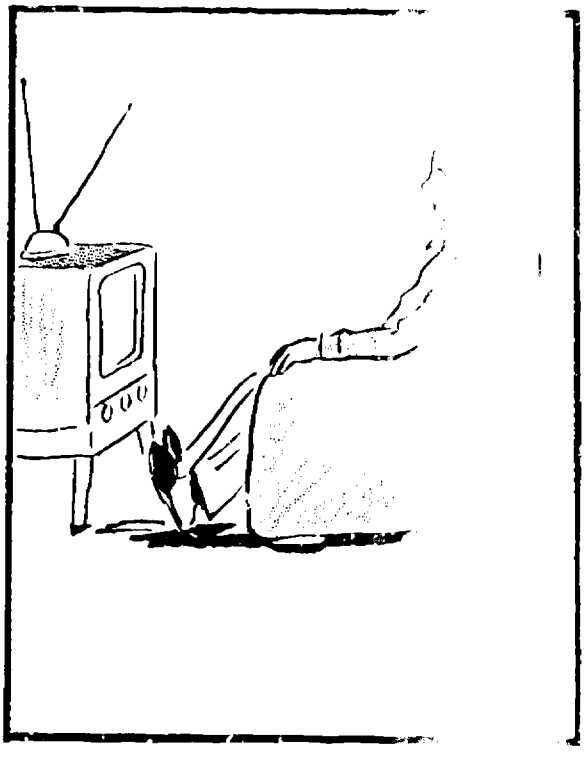


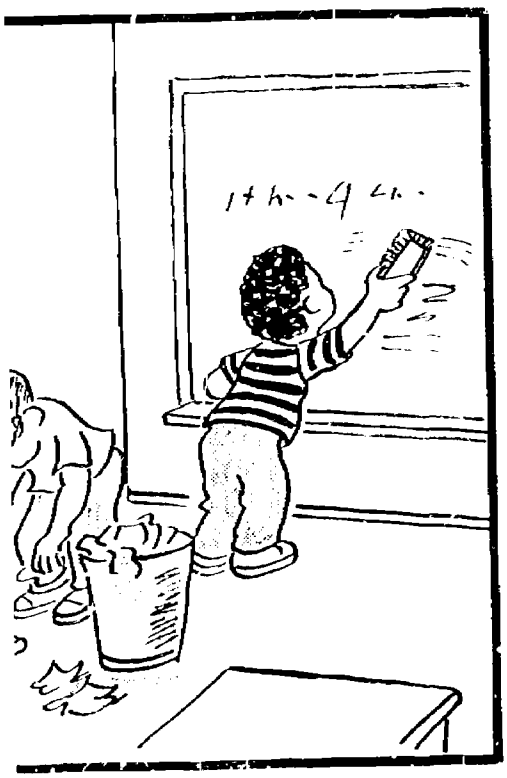








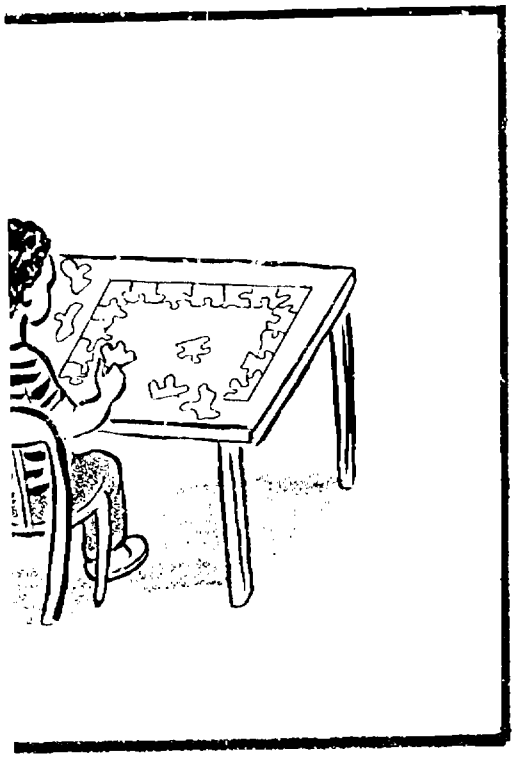


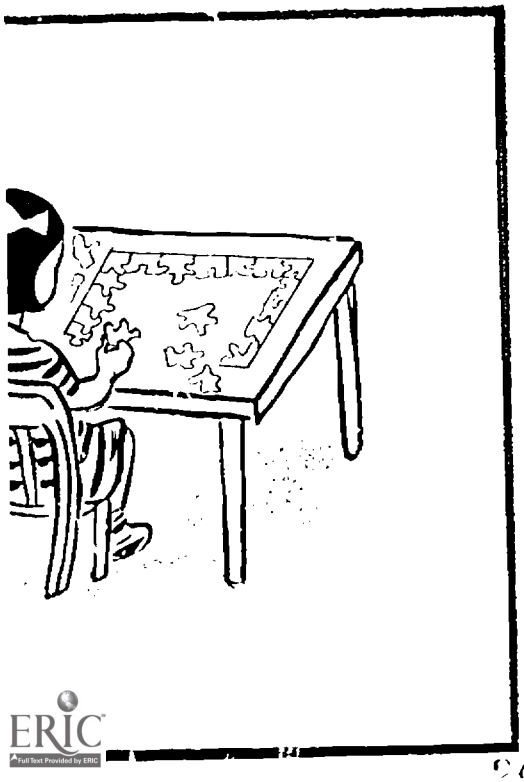

th-4 ch-

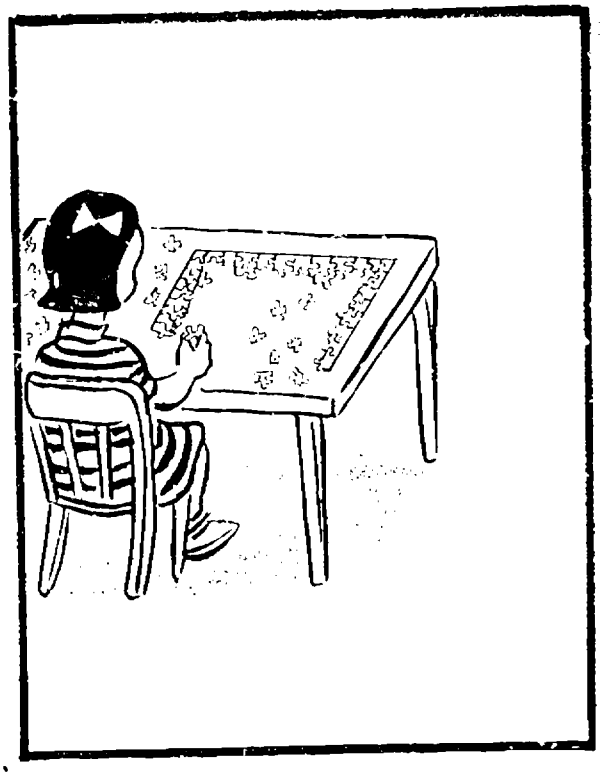

th-4 ch
and th-


th-/ ch-

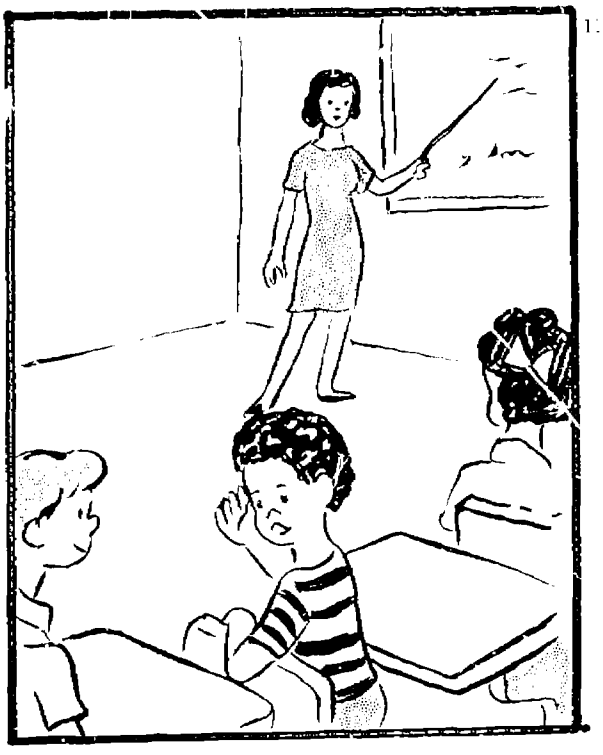

th- ch
and th-

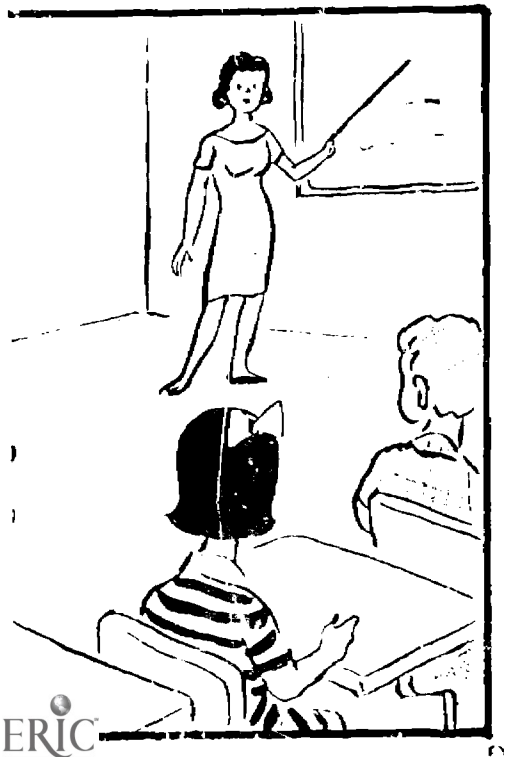


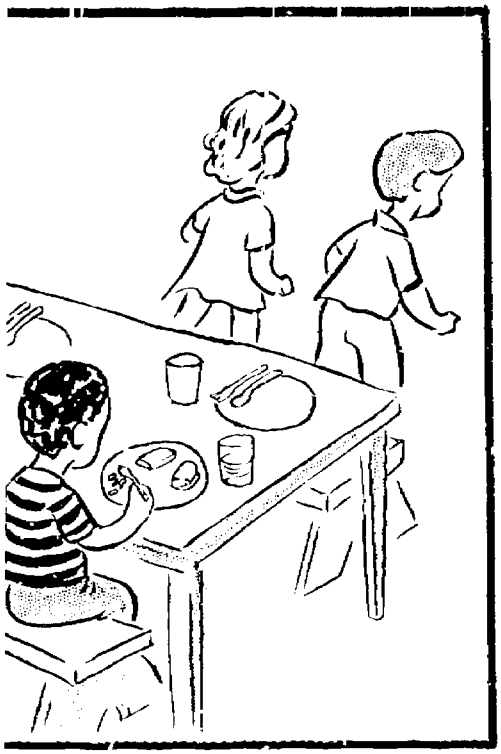




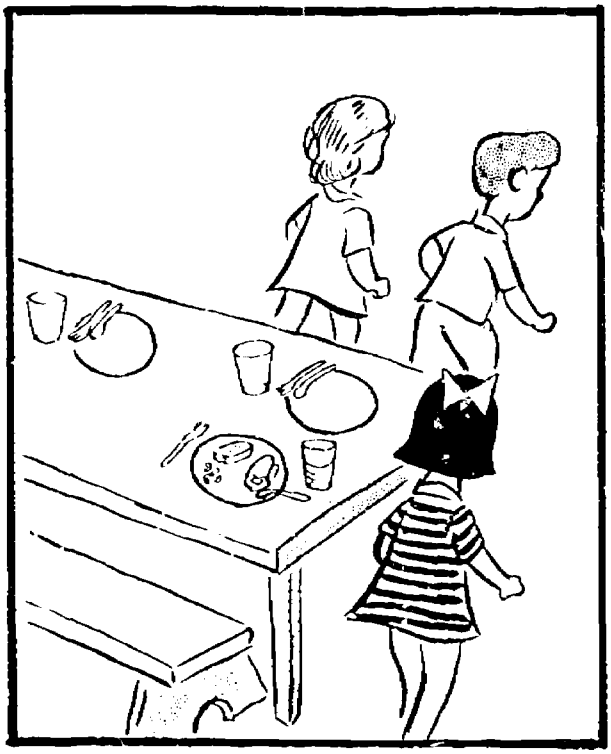
12







14



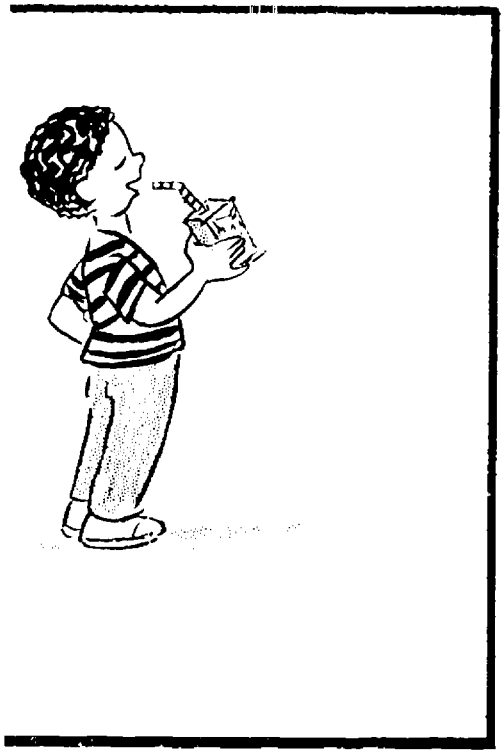
14

15

15

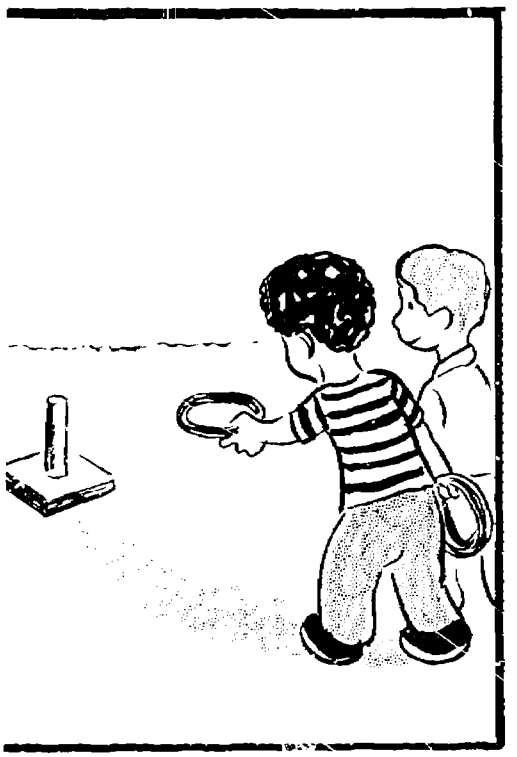
16

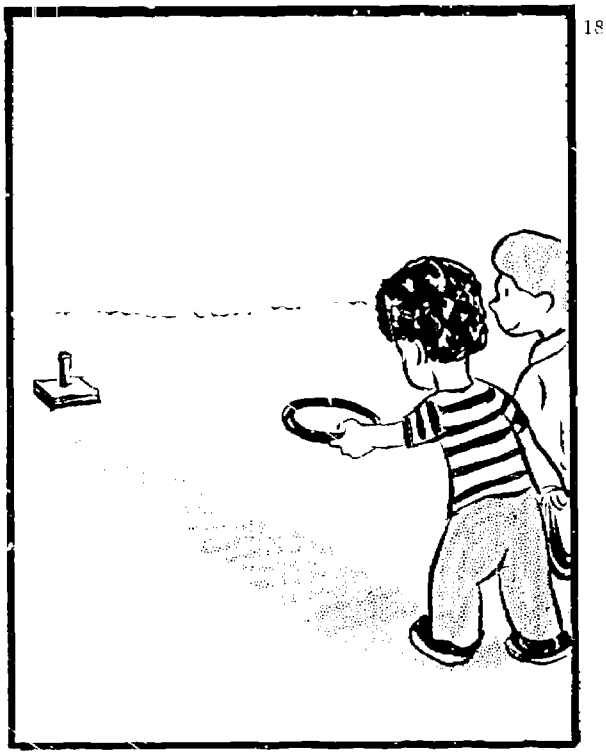
16

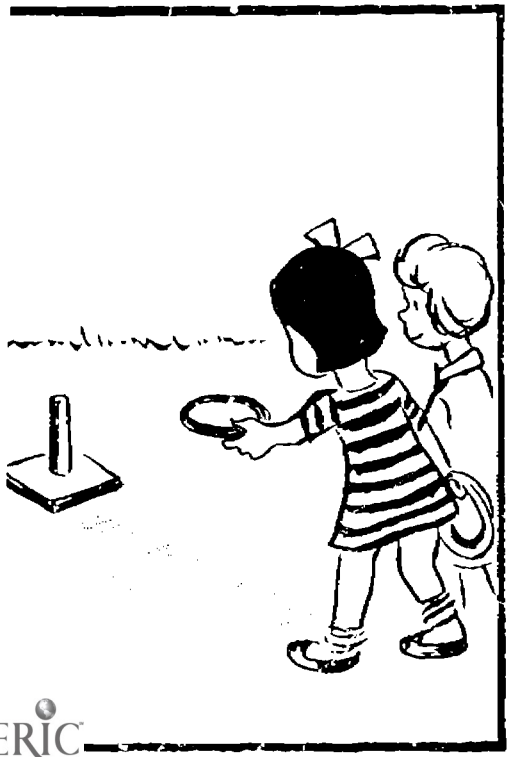


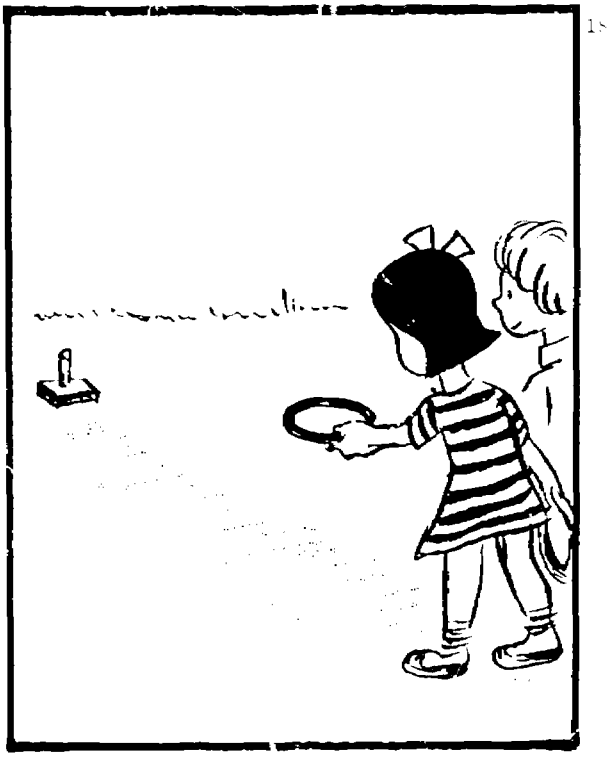
17

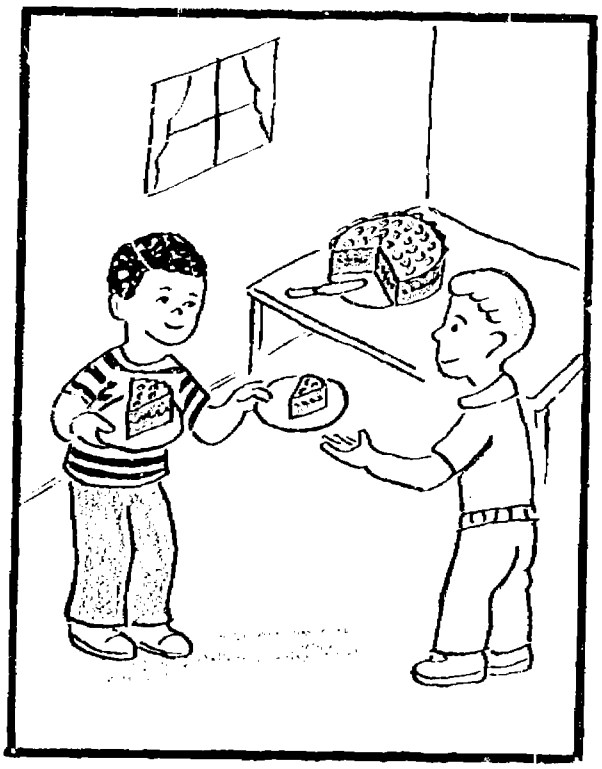
17

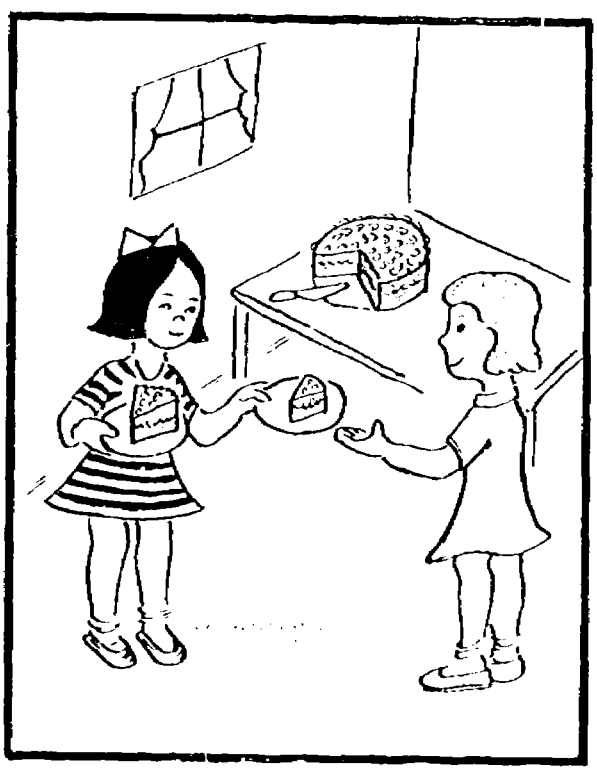


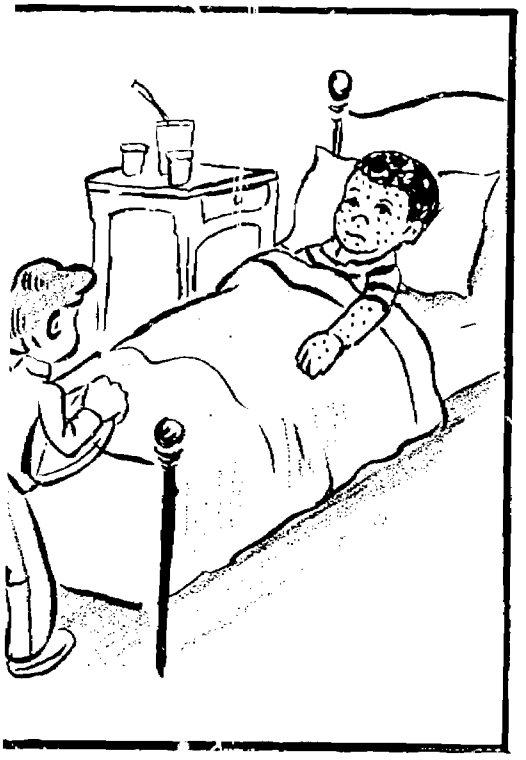






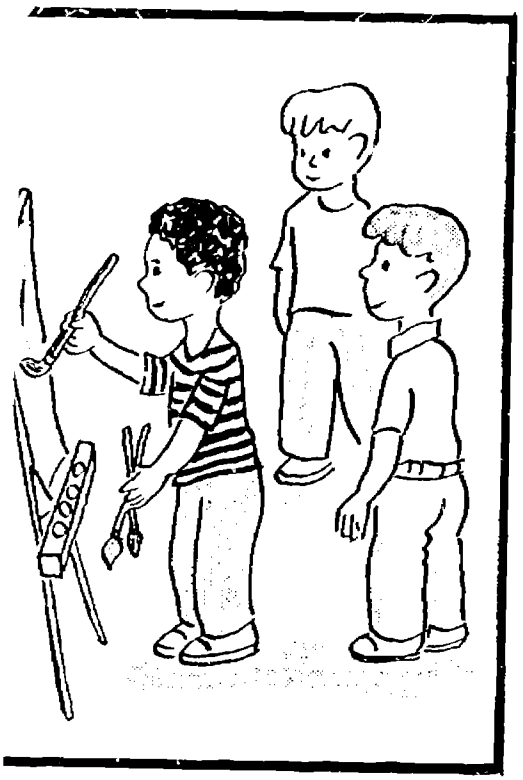


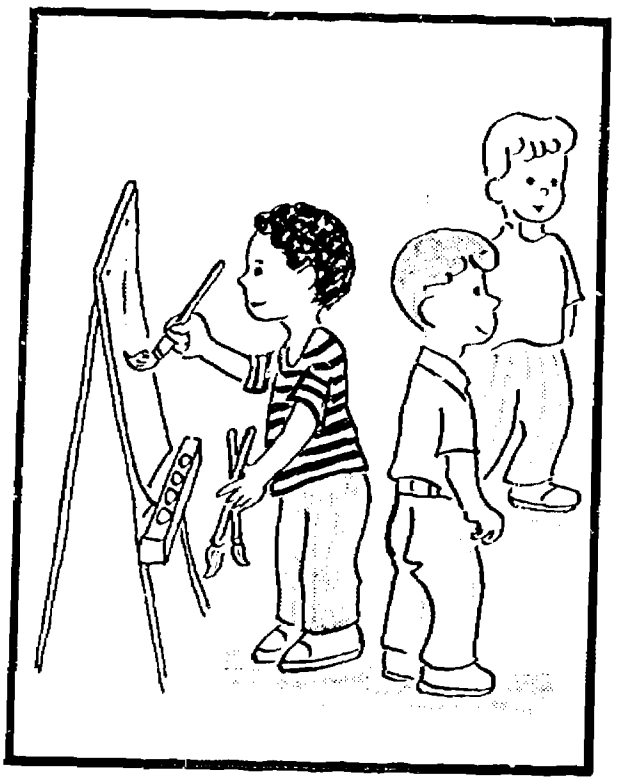


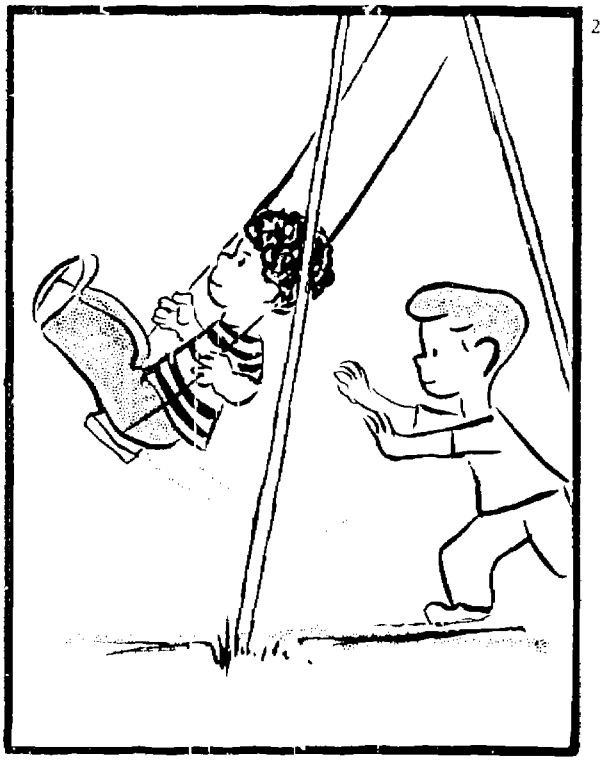


22

21

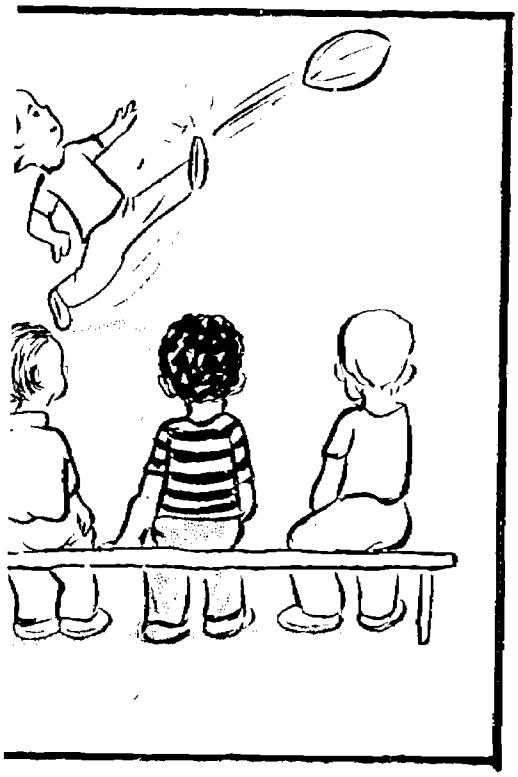




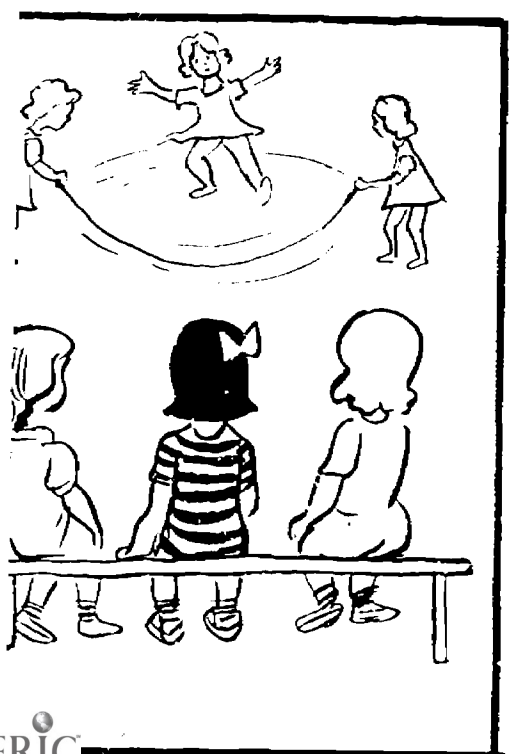


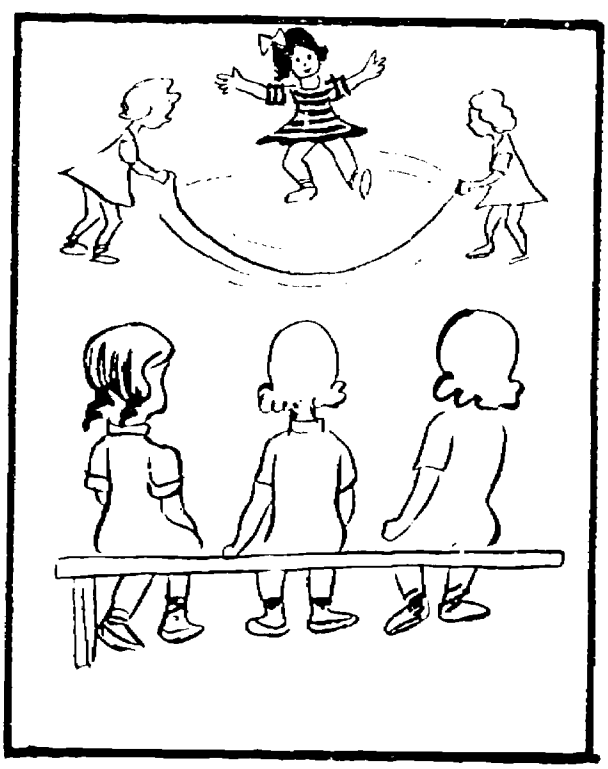
23

23

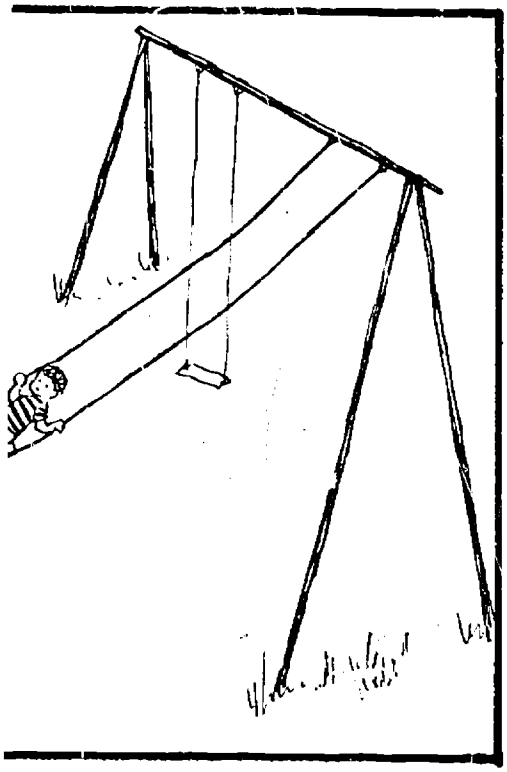


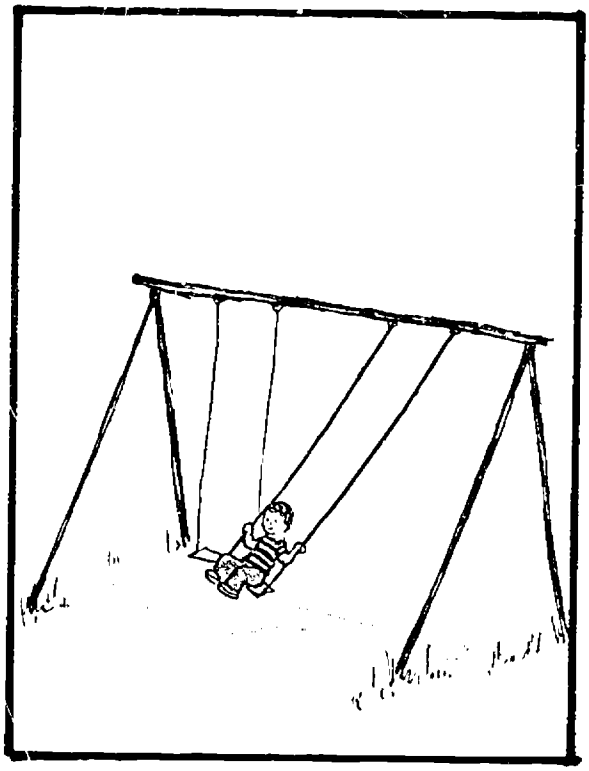
24



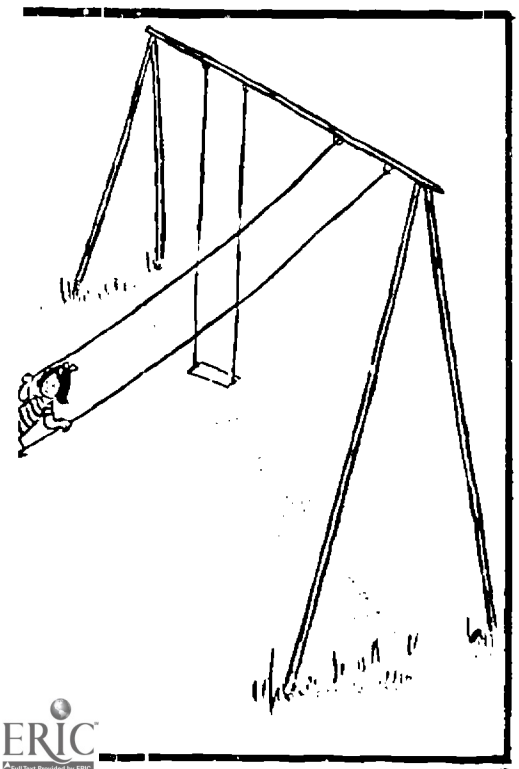


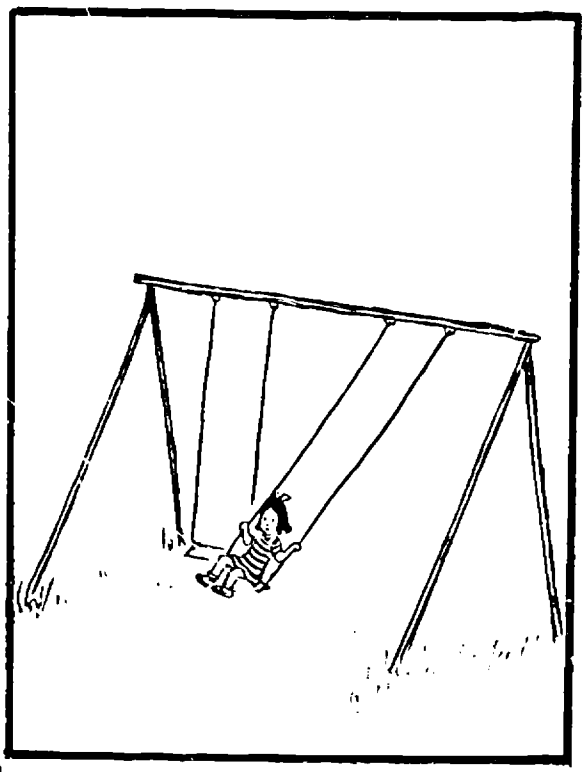
24



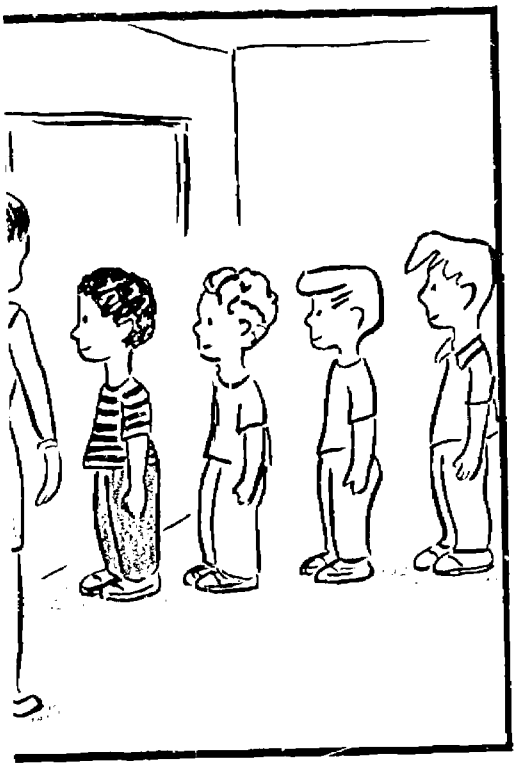


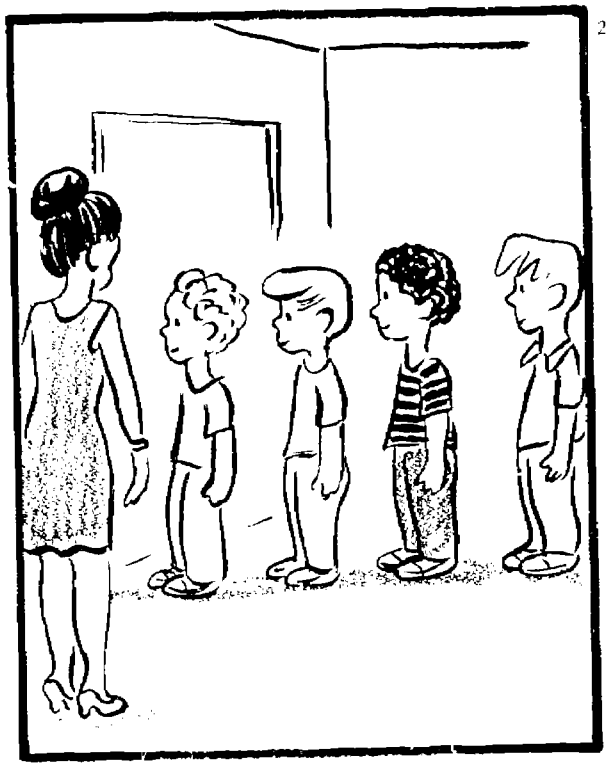
25



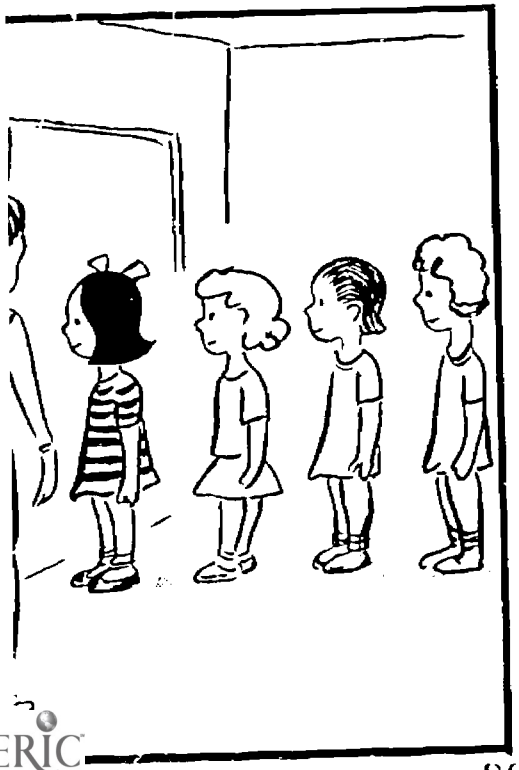


25

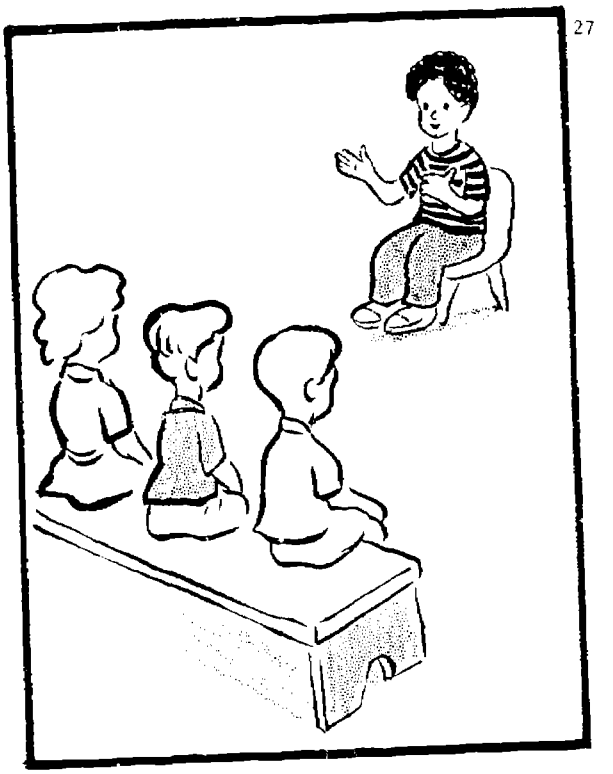




26



26


27

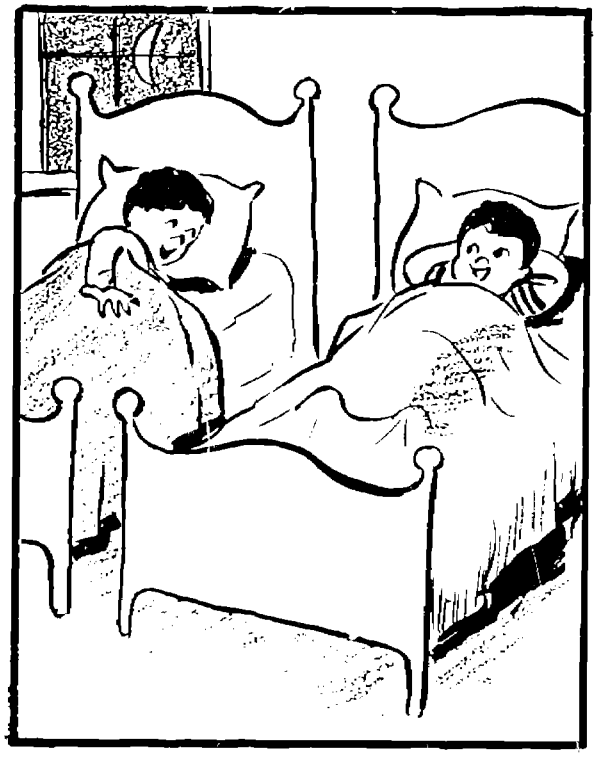

27

28

28

29

29



30

30

APPENDIX D

CODE BOOK FOR DATA CARDS

Col.	Variable
	Card 1: ID Card
1-20	Child's Name: Last, First
21-26	Birthdate: Mo-day-year (2 digits each)
27-58	Blank
59-64	Test Date of Test 1: Mo-day-year
65	Card Number = 1
66	First test = 1, Second test = 2, etc.
67-68	Teacher code: 01--N for each school
69-71	CA at time of test 1 (months)
72	Grade: First = 1, Second = 2, Third = 3
73	Race: A = 1, N = 2, O = 3, M = 4, I = 5, ? = 6
74	Sex: Male = 1, Female = 2
75-77	Child's ID number: 001 -- N for each school
78-80	School Code
	Card 2: X Booklet
1	Page i: 0, 1, 2 = number of correct faces circled
2	Pages ii, iii: 0, 1, 2 = "
3	Pages iv, v: 0, 1, 2 = "
4	Pages vi, vii: 0, 1, 2 = "
5	Pages viii, ix: 0, 1, 2 = "
6	Sum of cols. 2 and 4
7-8	Sum of cols. 1 to 5
9-10	Blank
11-40	Items 1 - 30
41-64	Blank
65	Card Number = 2
66-80	Dupe from Card 1
	Card 3: Y Booklet
1	Page i: 0 = incorrect, 1 = correct
2-10	Blank
11-40	Items 1 - 30
41-64	Blank
65	Card Number = 3
66-80	Dupe from Card 1

ID CARD CARD #1.

DATE OF TEST = ______ SCHOOL: ______ # ______

	NAME: LAST, FIRST (cols. 1–20)	BIRTHDATE MO (21–22)	BIRTHDATE DAY (23–24)	BIRTHDATE YEAR (25–26)	TEST DATE MO (59–60)	TEST DATE DAY (61–62)	TEST DATE YR (63–64)	(1) CARD (65)	(1) TEST (66)	TEACHER CODE (67–68)	(mos) CA (69–71)	G GRADE (72)	R RACE (73)	S SEX (74)	CHILD ID (75–77)	SCHOOL CODE (78–80)
1.																
2.																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																

(X) BOOKLET CARD 2

SCHOOL # ____________ # ______

X BOOKLET ITEMS: (1 2 (3) 4 5)

	1	2	3	4	5	6	Sum 1–5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		ID
1																																							
2																																							
3																																							
4																																							
5																																							
6																																							
7																																							
8																																							
9																																							
10																																							
11																																							
12																																							
13																																							
14																																							
15																																							
16																																							
17																																							
18																																							
19																																							
20																																							

BOOKLET CARD 3

BOOKLET ITEMS 2 (3) 4

ID

Appendix E. Item Response Distributions (in percentages) by Ethnic Group and for the Total Sample

Item 1X - Painting

	1	2	3	4	5
M	1	1	0	15	83
O	1	1	0	22	76
A	0	1	0	21	78
N	3	3	0	8	86
I	4	3	0	17	76
T	2	1	0	17	80

Item 2X - Mother

	1	2	3	4	5
M	5	9	0	36	50
O	0	18	1	58	23
A	2	15	0	52	31
N	7	11	1	46	35
I	4	20	1	45	30
T	3	15	1	48	33

Item 3X - Ghosts

	1	2	3	4	5
M	63	15	1	4	17
O	56	22	1	5	16
A	50	22	1	8	19
N	58	13	2	8	19
I	66	18	0	3	13
T	58	18	1	6	17

Item 4X - Reading

	1	2	3	4	5
M	11	28	1	34	26
O	4	36	1	45	14
A	3	41	1	45	10
N	12	35	1	33	19
I	6	40	0	35	19
T	7	36	1	39	17

Item 5X - Drop Cone

	1	2	3	4	5
M	73	13	2	4	8
O	84	10	1	2	3
A	86	6	1	2	5
N	77	8	4	4	7
I	83	8	2	1	6
T	81	9	2	3	5

Item 6X - Brush Teeth

	1	2	3	4	5
M	7	13	0	30	50
O	4	27	1	35	33
A	9	29	0	33	29
N	8	18	0	29	45
I	5	19	1	27	48
T	6	22	1	31	40

Appendix E (continued)

Item 7X - Soldier

	1	2	3	4	5
M	38	17	0	17	28
O	43	23	2	19	13
A	45	28	1	12	14
N	38	17	2	20	23
I	31	24	1	21	23
T	40	22	1	18	19

Item 8X - Nurse

	1	2	3	4	5
M	23	26	0	27	24
O	17	32	0	33	18
A	19	30	1	33	17
N	18	18	0	34	30
I	16	27	0	30	27
T	18	27	0	32	23

Item 9X - Cars

	1	2	3	4	5
M	26	30	1	20	23
O	20	42	0	26	12
A	19	35	3	31	12
N	32	28	0	22	18
I	27	24	1	31	17
T	25	32	1	26	16

Item 10X - Music

	1	2	3	4	5
M	2	2	2	23	71
O	0	2	1	33	64
A	0	4	1	32	63
N	4	2	2	22	70
I	3	10	0	30	57
T	2	4	1	28	65

Item 11X - Father

	1	2	3	4	5
M	11	19	2	35	33
O	5	27	2	43	23
A	6	30	3	38	23
N	6	22	3	38	31
I	11	18	1	37	33
T	8	24	2	38	28

Item 12X - Boxing

	1	2	3	4	5
M	28	15	1	14	42
O	29	24	1	20	26
A	23	25	1	21	30
N	30	12	1	17	40
I	32	12	1	21	34
T	28	18	1	19	34

Appendix E (continued)

Item 13X - Throw Vegs

	1	2	3	4	5
M	40	14	1	19	26
O	38	23	1	21	17
A	35	18	1	21	25
N	40	15	1	14	30
I	46	17	0	24	13
T	39	18	1	20	22

Item 14X - Smelling

	1	2	3	4	5
M	3	3	1	32	61
O	4	7	1	35	53
A	3	7	1	40	49
N	4	5	0	25	66
I	4	7	1	35	53
T	4	6	1	33	56

Item 15X - Tug-of-war

	1	2	3	4	5
M	37	20	2	19	22
O	20	33	1	26	20
A	18	30	1	29	22
N	35	31	2	17	15
I	33	28	1	22	16
T	28	29	1	23	19

Item 16X - Studying

	1	2	3	4	5
M	16	19	0	22	43
O	13	28	0	33	26
A	23	28	1	28	20
N	20	17	0	25	38
I	22	11	1	29	37
T	19	21	0	28	32

Item 17X - Stealing

	1	2	3	4	5
M	55	14	0	12	19
O	58	11	2	11	18
A	54	12	2	10	22
N	52	11	1	10	26
I	49	16	0	19	16
T	54	13	1	12	20

Item 18X - Bath

	1	2	3	4	5
M	7	10	0	19	64
O	6	23	0	36	35
A	12	27	1	29	31
N	10	12	1	21	56
I	14	11	1	22	52
T	10	17	0	26	47

Appendix E (continued)

Item 19X - Snake

	1	2	3	4	5
M	59	23	1	8	9
O	63	24	0	7	6
A	55	24	2	11	8
N	56	12	1	17	14
I	58	21	2	13	6
T	58	21	1	11	9

Item 20X - Church

	1	2	3	4	5
M	7	10	0	19	64
O	12	18	0	28	42
A	9	19	0	17	55
N	13	7	1	13	66
I	4	9	2	16	69
T	9	12	1	18	60

Item 21X - Police

	1	2	3	4	5
M	50	20	1	14	15
O	32	24	2	22	20
A	35	29	2	16	18
N	41	21	2	17	19
I	41	28	1	19	11
T	39	24	2	18	17

Item 22X - Nature

	1	2	3	4	5
M	4	9	0	30	57
O	2	13	0	41	44
A	1	15	0	42	42
N	4	11	0	30	55
I	4	17	1	40	38
T	3	13	0	37	47

Item 23X - Litter

	1	2	3	4	5
M	35	16	2	20	27
O	59	21	2	10	8
A	50	19	1	16	14
N	40	13	0	14	33
I	45	18	2	19	16
T	47	18	1	15	19

Item 24X - Doctor

	1	2	3	4	5
M	23	19	1	25	32
O	6	26	0	39	29
A	23	19	1	25	32
N	12	19	0	32	37
I	14	21	1	35	29
T	12	24	0	33	31

Item 25X - Water Man

	1	2	3	4	5
M	48	21	2	9	20
O	67	23	1	6	3
A	57	21	2	7	13
N	59	14	1	8	18
I	58	13	1	16	12
T	59	19	1	9	12

Item 26X - Cave

	1	2	3	4	5
M	42	20	1	12	25
O	42	35	0	14	9
A	28	37	1	19	15
N	41	25	0	15	19
I	21	29	0	21	29
T	36	29	1	16	18

Item 27X - Classroom

	1	2	3	4	5
M	10	6	2	20	62
O	2	12	1	24	61
A	11	14	2	25	48
N	14	10	1	15	60
I	16	13	2	17	52
T	10	11	2	20	57

Item 28X - Teacher

	1	2	3	4	5
M	10	19	1	23	47
O	4	18	1	43	34
A	7	25	1	35	32
N	14	15	1	24	46
I	13	14	2	36	35
T	9	19	1	33	38

Item 29X - Knife

	1	2	3	4	5
M	23	16	2	23	36
O	16	20	1	35	28
A	11	17	2	38	32
N	15	13	0	32	40
I	18	24	2	28	28
T	16	18	1	32	33

Item 30 X - Home

	1	2	3	4	5
M	5	9	2	21	63
O	4	4	1	24	67
A	4	10	1	21	64
N	8	9	1	17	65
I	6	16	2	17	59
T	5	10	1	20	64

Appendix E (continued)

Item 1Y - Tree hi/lo

	2	3	4
M	64	1	35
O	47	0	53
A	66	0	34
N	43	0	57
I	57	0	43
T	54	0	46

Item 2Y - Save/Spend

	2	3	4
M	62	1	37
O	58	0	42
A	55	0	45
N	58	1	41
I	49	0	51
T	57	0	43

Item 3Y - Play 1/Many

	2	3	4
M	54	0	46
O	58	0	42
A	58	1	41
N	54	1	45
I	61	0	39
T	57	0	43

Item 4Y - Help/Self

	2	3	4
M	33	1	66
O	23	1	76
A	24	1	75
N	34	2	64
I	28	0	72
T	28	1	71

Item 5 - 2 Beds/1 Bed

	2	3	4
M	55	0	45
O	33	0	67
A	29	1	70
N	50	1	49
I	54	0	46
T	43	1	56

Item 6Y - Ignore/Tongue

	2	3	4
M	63	1	36
O	58	1	41
A	64	1	35
N	54	2	44
I	61	2	37
T	60	1	39

Appendix E (continued)

Item 7Y - Tinker/blocks

	2	3	4
M	72	1	27
O	71	1	28
A	64	1	35
N	61	0	39
I	63	0	37
T	66	1	33

Item 8Y - Pat/hug E.

	2	3	4
M	28	2	70
O	28	1	71
A	18	1	81
N	27	0	73
I	31	2	67
T	26	1	73

Item 9Y - Fight/Separate

	2	3	4
M	40	2	58
O	18	1	81
A	18	1	81
N	39	0	61
I	42	0	58
T	30	1	69

Item 10Y - Smoke/not

	2	3	4
M	26	1	73
O	9	2	89
A	7	1	92
N	21	1	78
I	37	1	62
T	19	1	80

Item 11Y - Duty/Play

	2	3	4
M	68	1	31
O	85	0	15
A	76	2	22
N	69	1	30
I	72	1	27
T	75	1	24

Item 12Y - Simple/Complex

	2	3	4
M	48	3	49
O	58	0	42
A	55	0	45
N	43	0	57
I	48	1	51
T	51	1	48

Appendix E (continued)

Item 13Y - Listen/Talk

	2	3	4
M	71	1	28
O	91	0	8
A	82	1	17
N	70	1	29
I	77	0	23
T	79	1	20

Item 14Y - Eat/Leave

	2	3	4
M	68	1	31
O	68	2	30
A	63	1	36
N	68	2	30
I	67	2	31
T	67	2	31

Item 15Y - Truth/Lie

	2	3	4
M	55	1	44
O	63	1	36
A	63	3	34
N	56	2	42
I	58	2	40
T	59	2	39

Item 16Y - Money/Present

	2	3	4
M	39	3	58
O	42	1	57
A	37	1	62
N	32	1	67
I	30	1	69
T	36	1	63

Item 17Y - Milk/Pop

	2	3	4
M	23	1	76
O	27	1	72
A	27	0	73
N	34	1	65
I	26	1	73
T	27	1	72

Item 18Y - Near/Far

	2	3	4
M	64	1	35
O	54	1	45
A	53	1	46
N	53	1	46
I	40	1	59
T	53	1	46

Appendix E (continued)

Item 19Y - Large/Small

	2	3	4
M	53	1	46
O	61	1	38
A	65	3	32
N	46	1	53
I	63	2	35
T	58	1	41

Item 20Y - Bed/Up

	2	3	4
M	70	2	28
O	86	1	13
A	83	1	16
N	73	1	26
I	74	4	22
	78	2	20

Item 21Y - Talk 1/Many

	2	3	4
M	36	0	64
O	32	0	68
A	36	1	63
N	36	2	61
I	47	2	51
T	37	1	62

Item 22Y - Admired/Not

	2	3	4
M	67	1	32
O	78	0	22
A	73	0	27
N	63	1	35
I	67	2	31
T	70	1	29

Item 23Y - Push/Swing

	2	3	4
M	34	1	65
O	42	1	57
A	43	1	56
N	39	0	61
I	50	2	48
T	41	1	58

Item 24Y - Watch/Play

	2	3	4
M	26	1	73
O	27	1	71
A	28	0	72
N	24	1	75
I	33	1	66
T	27	1	72

Appendix E (continued)

Item 25Y - Swing hi/lo

	2	3	4
M	68	0	32
O	69	1	30
A	76	1	23
N	66	2	32
I	72	1	27
T	70	1	29

Item 26Y - 1st/3rd

	2	3	4
M	75	1	24
O	69	1	30
A	72	1	27
N	74	1	25
I	69	2	29
T	72	1	27

Item 27Y - Student/Teacher

	2	3	4
M	33	2	65
O	39	1	60
A	32	2	66
N	29	2	69
I	40	2	58
T	35	2	63

Item 28Y - Eat/Share

	2	3	4
M	54	1	45
O	41	0	59
A	46	0	54
N	55	1	44
I	42	1	57
T	47	1	52

Item 29Y - Hug/Pat -M

	2	3	4
M	77	1	22
O	63	0	37
A	72	1	27
N	70	1	29
I	58	5	37
T	68	1	31

Item 30Y - Sleep/Talk

	2	3	4
M	54	1	45
O	69	1	30
A	54	1	45
N	55	2	43
I	61	2	37
T	59	1	40