

EFFECTS OF ETHNIC GROUP, SEX AND ADJUSTMENT
ON INTERPERSONAL SPACING

A Thesis

Presented to

the Faculty of the Department of Psychology

University of Houston

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

Jean H. Hall

August 1974

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ABSTRACT

In an effort to further explore the factors which influence man's use of interpersonal space, this study was designed to investigate patterns of distancing and arrangement produced by young children in a doll placement technique. Selected factors of principle interest were ethnic group, sex and personal adjustment. Anglo, Black and Mexican children between the ages of three and six placed human figures in four settings, for which measures of linear distance and grouping schemata were recorded.

An analysis of variance revealed that the ethnic groups differed significantly on the basis of social class. Therefore, a multiple regression analysis was conducted to examine the effects on placement schemata by ethnic group, sex and adjustment, with age and social class included as covariates.

The analysis revealed that distancing and grouping of human figures was based primarily on adjustment and age, rather than ethnic group or sex. The findings indicated that closer spacing and more directly-oriented grouping of human figures were produced by children rated high in self-adjustment. Age exerted the effect of more distant spacing and less connected grouping by older children.

A secondary focus of the study concerned the thematic content

generated for each placement setting. To investigate this, story interactions between the human figures were classified into three broad groups of behaviors, representing emotional distance, with implication of movement toward, away or against another person.

Significant relationships emerged for several of the independent variables. A trend existed for Mexican children to express more positive, moving toward behaviors than Anglos or Blacks. Sex differences in thematic material revealed that girls expressed more dominance and less hostility than boys. Older subjects produced more positive, pro-social behavior and more favorable outcomes than younger children. Finally, children rated as socially well-adjusted generated more moving toward interactions than children with low social adjustment.

The results of the study corroborate findings that personal adjustment is a primary organizer of an individual's approach to social interactions. This indicates that children with poor personal adjustment tend to feel separated and distant from other people, and see themselves as making fewer attempts at pro-social behavior than well-adjusted children. Understanding the development and maintenance of this sense of distance in young children seems important in planning effective treatment for serious adjustment problems. Additionally, there is suggestion that ethnic group membership influences emotional distance and quality of behavior attributed to others. The findings

imply that future research concerning racial attitudes and emotional adjustment in young children need examine the interaction of personal adjustment and ethnic group in relation to interpersonal space.

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CHAPTER I

INTRODUCTION

Differences in patterns of structuring interpersonal space in live interactions and in symbolic tasks have been postulated to result from basic socio-cultural learning (Kuethe, 1962a, 1962b, 1963; Hall, 1963a; Little, 1968). High commonality is evidenced among members of the same culture in arrangement and distancing of interactions between individuals, with the common response or social schemata assumed to result from early social learning experiences. Factors which have been found to affect spatial orientation include affectional tone, sex and degree of acquaintanceship of the interactants, location of the interaction, and sex of the subject. Deviations from the modal response are assumed to reflect difficulties in interpersonal relationships such as poor social adjustment or emotional disturbance.

Clear differences in interpersonal spacing among broad cultural groups have been found to support E. T. Hall's (1966) description of contact and noncontact cultures, a dimension based on the acceptability of physical contact in public situations. East European, Arabic and Mediterranean cultures tend to interact more proximally with more physical contact than Northern European or American cultures. Watson and Graves (1960) found differences in spatial orientation (distance,

shoulder orientation, and eye contact) between Arabs and Americans in standardized real-life situations. Little (1968), using symbolic tasks which designated degree of acquaintanceship, affective tone and superior-subordinate relationships, demonstrated significant differences between the Mediterranean cultural groups and the Northern European groups. He found that the contact cultures, Greeks and Italians, produced closer average figure placements in comparison to the noncontact groups, Swedes and Scots. In regard to affectional tone, pleasant topics produced closer placement than neutral or unpleasant topics, although the two latter situations were not significantly different from each other. While his results were complex, the analysis of sex differences among the groups failed to reveal a conclusive effect on placement schemata.

More recently research interest has centered on subcultural studies examining ethnic and sex differences in interpersonal spacing within the United States, with conflicting results reported. In one of the first subcultural studies Willis (1966) found some evidence of differences in interaction distances between Blacks and Anglos, with Blacks tending to greet each other at greater distances. Observing specified ethnic-, age- and sex-grouped dyads in natural settings, Baxter (1970) found that Mexican-American subjects of all ages and sex-groupings interacted most proximally, with Anglos intermediate and Blacks most distant. Considering Mexican-Americans as of

Mediterranean origin, this finding is consistent with the contentions of Hall (1966) and Little (1968). Ethnic group differences were found even in the youngest subjects, aged 5 to 10, adding support to the theory that social schemata are learned in early childhood. The main effect of sex grouping (Male-Male, Male-Female, Female-Female) revealed that male-female groups interacted most proximally, the female-female groups were intermediate, and the male-male groups were most distant. Although this effect did not remain constant across ethnic and age combinations, it does support patterns found by other investigators. Among children, sex group effects were absent for Anglos, yet were clearly present in different patterns for the Black and Mexican-American groups. The female-female interaction was most proximal in the Mexican-American group and was most distant for the Black children. A final interesting effect was related to ethnic group by location of observation. While the Anglos interacted at approximately the same distance both in the indoor and outdoor locations, the Mexicans interacted more closely in outdoor settings and the Blacks interacted more closely in indoor settings. In a recent study of mixed ethnic interactions, Thompson and Baxter (1973) found that the interactants made moves to "correct" distances. Blacks were clearly shown to move backwards to increase distance between themselves and either Anglos or Mexicans, while Mexicans were seen as predominantly moving forward.

Other results show a contrast in or absence of subcultural differences. Forsten and Larson (1968) demonstrated no significant differences between Latin Americans and Americans engaged in political discussion, and Jones (1971) found clear similarity in distance scores among four lower-class subcultures in New York City. Observing same-sex, same-culture dyads of Black, Puerto Rican and Anglo children on school playgrounds, Aiello and Jones (1971) demonstrated ethnic and sex group differences in proxemic behavior. Anglo children stood farther apart than either Black or Puerto Rican children, and within the white group, males stood farther apart than females. There were no significant differences between the Black and Puerto Rican groups, nor were there significant sex differences within these groups. An axis measure, adapted from Hall's (1963b) notational system, revealed that Anglo children were more directly oriented to each other than Black children. No differences were found between Black and Puerto Rican children on the axis measure. Across the three subcultural groups slight differences suggested that females were less directly oriented to each other than males were to males. The findings that Black and Puerto Rican children stand closer and less directly oriented than Anglo children are subject to the effects of another variable, socio-economic class. The Black and Puerto Rican children, among whom no differences in spacing or orientation were found, were from a low socio-

economic class, and the Anglo children were from a middle socio-economic class, allowing for the interpretation that members of poverty subcultures represent spacing in a similar manner, regardless of ethnic variation.

Several investigators have examined the social schematas of deviant groups within cultures by correlating the effects of personal adjustment and interpersonal spacing, reasoning that physical distance placed between human figures is representative of emotional distance. For example, Kuethe and Weingartner (1964) found that homosexuals placed two male figures closer than a male-female pair, a clear contrast to the normal social schemata. Weinstein (1965) revealed that emotionally disturbed children did not exhibit the normal adult schema of placing human figures closer together than nonhuman figures. Unlike normals, the disturbed children also placed mother-child pairs farther than father-child or child-child pairs. Further, Fisher (1967) demonstrated that disturbed school children placed a greater degree of distance between human figures than normal children, and that the distance was positively correlated with their mothers' scores on a measure of hostility.

Investigating families having one child with learning difficulties, Gerber and Kaswan (1971) analyzed the effects of personal adjustment and instructed affectional tone on distance and grouping in a family doll placement technique. Positive emotional themes (happy, loving) produced closer placement and more directly oriented grouping of dolls

than negative emotional themes (sad, angry, worried). The effect of learning disabilities was not found to be a significant differentiating factor; however, this finding must be interpreted in view of the fact that siblings and parents of the disturbed children were used as a schema comparison group rather than normal controls.

In view of the contradictory results to date, the aim of the present study was to further examine the effects of ethnic group, sex and personal adjustment on interpersonal spacing in a doll placement technique. Based on the findings of Willis (1966), Hall (1966), Little (1968), Baxter (1970) and Thompson and Baxter (1973), it was hypothesized that subcultural variation in grouping and distance would exist. Specifically it was anticipated that Mexican children would represent interactions most proximally, Anglo children would be intermediate and Black children would represent the most distance. Although research trends show closer interaction between male-female groups than male-male groups, with female-female groups intermediate, the effects are generally inconsistent across age, sex and ethnic groups, thus, a minimum effect for sex differences was anticipated. It was expected that interpersonal distance and grouping would be correlated with a measure of personal adjustment, such that more well-adjusted children would be characterized by closer schemata than less well-adjusted

children. Adjustment was further expected to relate to thematic material, with well-adjusted children expressing more positive emotional themes.

Moreover the study explored the content and outcome of stories produced by the subject, and the subject's test-taking behavior in relation to adjustment, ethnic group, sex and other descriptive variables.

CHAPTER II

METHOD

Subjects. The fifty-four subjects (Ss) were among eighty children involved in the Special Experiences of Early Childhood (SEEC) project, a study which was supported by the Texas Education Agency¹ to examine the long-term effects of the infant heroin withdrawal syndrome. The SEEC project was conducted in cooperation with the Inter-agency for Multihandicapped Children and Their Families, and was directed toward comprehensive assessment of symptoms related to central nervous system dysfunction (e.g. hyperactivity and perceptual-motor dysfunction). Sources of control subjects for the project included children from the "drug culture" but without maternal addiction (e.g. addicted father or mother addicted after birth), children seen in the High Risk Clinic (where most drug children are seen) for reasons other than maternal addiction, and a group of normal children matched for variables such as age, sex, ethnic group and socio-economic status.

For the present study six groups of subjects were selected, a male and female group for each of three ethnic groups as follows:

¹ Grant #4-660-00-21, Special Experiences of Early Childhood.

nine Black males, mean age 57.7 months; fourteen Black females, mean age 55.8 months; nine Anglo males, mean age 57.5 months; three Anglo females, mean age 67.0 months; twelve Mexican males, mean age 53.1 months; seven Mexican females, mean age 55.6 months. For the total of fifty-four Ss the age range was from three years, one month to six years, four months; the mean age for the total sample was four years, seven months. By sex the sample consisted of thirty males and twenty-four females, and by ethnic group, there were twenty-three Blacks, twelve Anglos, and nineteen Mexicans. (See Appendix B)

Subjects were transported from their home or nursery school to the research center by the staff social worker. For approximately four hours each child was evaluated by extensive psychological testing, physical examination and behavioral observation. To insure cooperation the SEEC project provided reimbursement to the parents.

Procedure. Testing was conducted individually by a White female or White male experimenter (E) in a quiet room. Testing each S required approximately twenty minutes. Each administration was video-taped.

The mode of testing was an adaptation of the Make-a-Picture-Story-Test (Schneidman, 1952), with a stage and four colorful painted backgrounds. The stage was a 11-1/2" by 24" board with lines ruled to one inch squares. Backgrounds represented simplified pictures of:

1) a living room setting, with sofa, chairs, tables, etc.; 2) a school room, with desks, chairs, blackboard, etc.; 3) a street scene, with house fronts, sidewalk, etc.; and 4) a park setting, with trees, swings, benches, etc. While the backgrounds varied in many ways they were chosen to represent two indoor and two outdoor settings relevant to the child's experience and productive of different types of behavior.² In addition, neutral-colored cardboard panels were attached to the sides of the stage to provide boundaries for the area of interaction.

The eight dolls used were selected from story sets made by The Judy Company.³ The dolls ranged in height from approximately 3-1/2" for children to 6" for the adult dolls. The flat dolls were brightly painted on one side, plain hardboard on the other, with plastic stands at the base. The size of the dolls and the size of the pictures were in approximately equal proportion. Although the posture of the dolls was fixed, they were relatively ambiguous with respect to action.

For the home setting a family of four dolls was presented, consisting of a mother, father, brother and younger sister. The male or female child figure from the Home scene which was S's same sex was included in the remaining three scenes (for identification purposes this doll was referred to as the "Child" doll).

A teacher doll, holding a book, and the Child doll were

²Based on home visits, the scenes were regarded as relevant to Ss' environment. Approximately half of the Ss had preschool experience.

³Set No. 611004

presented for the school scene. The outdoor scene used a policeman doll and the Child. For the park setting three children were selected: the Child doll, a same sex peer and an opposite sex peer. The boy peer was a Black doll; all other dolls used had Anglo appearances.

As the S entered the room he was seated in front of a table on which the stage and dolls were placed. He was familiarized with the materials and was told that he would be asked to make up stories about the dolls. At the beginning of each scene the background was introduced by identifying the components of the picture, and a brief statement was made to set the scene. The dolls were identified, with the Child doll described as "just like you." The S was first instructed to place the dolls on the stage "where they belong." E made notation of the placement, then asked for a story and recorded it on the protocol. Although E attempted to elicit thematic content with specific interactions and an outcome, he asked relatively nondirective questions. Details of the administration are presented in the Scoring Manual in the Appendix.

Measures

Linear Distance. The location and arrangement of the dolls on the stage was reproduced in the form of a circle proportional to the size of the doll drawn on a small grid on the record form. Recording

was accurate to approximately the nearest .5 centimeter. The distance between each pair of doll figures was measured in centimeters on the grid reproduction.

There were four types of distance measures: 1) family dyad distances; 2) family distance summary; 3) distance index for each scene; 4) linear distance summary. For the Home scene distance between each dyad (mother-father, mother-child, mother-sibling, father-child, father-sibling and child-sibling) was recorded for analyzation as separate dependent variables. The dyad distances were totaled for a summary family distance, and then averaged to yield a total distance index for the Home scene.

For the School and Street scenes, containing two doll figures, the distance index was obtained by the measurement of space between the two figures. The distance index for the Outdoor scene was obtained by summing and averaging the distance between the three dolls. Each of the four scenes yielded a distance index, which was further totaled to produce a single, summary linear distance measure.

Grouping Schemata. Arrangement and orientation of the dolls were scored by an adaptation of the grouping schemata categories developed by Gerber and Kaswan (1971). Placement of each doll was recorded on the grid by a circle and an arrow in the direction of its focus. The placement of dolls in each setting was rated on an 8-point

scale which corresponded to the degree of connectedness of the arrangement. For example, category 1 represented a close, connected placement with common focus and category 8 represented scattered placement and/or no common focus. Further description and examples are presented in the Scoring Manual in the Appendix. The grouping schemata ratings for the four scenes were summed to provide a summary grouping variable.

Content Analysis. The content of each of the four stories was scored according to an adaptation of Fine's (1955) scoring scheme for verbal projective techniques. Specific interactions of the doll pairs were scored according to twelve descriptive categories which corresponded to three general themes: 1) moving toward, 2) moving away, or 3) moving against.

Moving Toward interactions were defined by the categories of Acceptance, Affection, Submission and Dominance, which were expected to represent the most proximal interactions. Anxiety, Escape, Frustration and Rejection corresponded to Moving Away, a theme of increased interpersonal distance. Moving Against interactions were represented by Verbal, Physical and Death Hostility, and Crime, categories expected to relate to maximum interpersonal spacing. A score for each of the twelve categories was obtained by summing its occurrences across the four stories. This total score for each category was

analyzed as a separate dependent variable.

The scoring system provided for a single toward, away or against rating, based on the group of corresponding categories with the highest number of interactions scored. However, this rating was not included in the present analysis. Alternatively, a summary variable representing each theme was obtained by summing the scores for its four representative categories. For example, Moving Toward was represented by adding the scores for Acceptance, Affection, Submission and Dominance.

An outcome was scored for each story by rating the final consequences of the story as favorable, unfavorable or indeterminate. The total number of favorable outcomes was included in the data analysis. Scoring criteria for Content Analysis are presented in the Appendix.

Examiner-Subject Interaction Rating Scales. Six descriptive 5-point rating scales were developed to measure the nature and quality of the child's behavior in relation to the task and the examiner. The scales were: direction of attention, enthusiasm, level of activity, self-confidence, cooperation and quality of response. The complete rating scales are presented in the Appendix.

Scoring of the thematic content and ratings of examiner-subject interaction were done by the author. This was done from the video-tapes of each test session. The total scoring procedure, including distance

and grouping measures, required approximately forty minutes.

Adjustment. Three areas of adjustment taken from the Child Behavior Rating Scale (Cassel, 1962), provided the measure of adjustment. Self-adjustment, social adjustment and physical adjustment scales were administered in interview form to one parent by the staff social worker.

The self-adjustment scale consists of twenty questions relating to self-confidence, self-respect, and appropriate expression of feelings. A high self-adjustment score typifies a happy, self-accepting child. Twenty questions comprising the social adjustment scale measure the frequency of hostile, anti-social behavior, the quality of peer relationships and the ability to relate to other people. A child with a high score on social adjustment is expected to interact positively with his peers, to be outgoing, and to relate appropriately to other people. Physical adjustment is measured by six questions related to personal hygiene, perceptual-motor dysfunction and general physical health.

Socio-Economic Rating. During the home interview the social worker gathered information on parental education and occupation, for evaluation of socio-economic status, by the Hollingshead Two Factor Index Method (1957). Seven categories of education and seven types of occupations yielded weighted scores from eleven (highest rating) to seventy-seven (lowest rating). In previous research with the method

it has proved helpful to divide the scale into five social classes, as follows: Class I (11-17); Class II (18-27); Class III (28-43); Class IV (44-60); and Class V (61-77). These classes range in order from the upper class to the lower class.

Reliability. Thirteen of the video-tapes were viewed and scored by an independent rater, whose scores were matched with the author's. Pearson product-moment correlations were computed for each of the twelve content categories, the favorable outcome category and the six test-behavior rating scales. Seven of the content categories (Submission, Anxiety, Escape, Frustration, Hostility-Physical, Hostility-Death, Crime) yielded coefficients significant at the .01 level of confidence, ranging from .70 to .92. The categories of Dominance and Hostility-Verbal were significant at the .05 level of confidence ($r_s = .59$ and $.66$), and the favorable outcome rating yielded an r of $.78$ ($p < .01$). Reliability coefficients for three content categories did not reach acceptable levels of confidence: Acceptance, $r = .41$; Affection, $r = .39$; and Rejection, $r = .40$. In computing reliability coefficients the content categories were not summed for the three major themes (Toward, Away, Against); however, it is expected that such summary reliabilities would be higher since the range of data would be increased.

Four of the six Examiner-Subject Interaction Rating Scales (Enthusiasm, Self-Confidence, Cooperation, Quality of Response) produced coefficients significant at the .05 level of confidence, ranging from .59 to .64. The reliabilities of two scales, Direction of Attention and Level of Activity, were not significant at the .05 level of confidence ($r_s = .52$ and $.47$).

CHAPTER III

RESULTS

The major concerns of the present study were with the effects of ethnic group, sex and personal adjustment on interpersonal spacing, thematic content and test-taking behavior. The results pertaining to each of the three areas of interest will be presented separately, following a detailed description of the population differences related to five descriptive variables.

By analysis of variance, differences between means of the six sex-ethnic groups were examined for the thirty-eight variables described in the measures section. The data were also analyzed by multiple regression, with age and social class included as covariates (Cohen, 1968). The effects of these two variables were partialled out and the other five independent variables (sex, ethnic group, self-adjustment, social adjustment, and physical adjustment) were then analyzed for their contribution to the variance of each dependent variable.

Descriptive Characteristics

Analysis of variance between the means of the six sex and ethnic group combinations of Ss revealed no significant differences on

four of the five independent variables. Age differences between sex and ethnic groups were not significant, with F ratios of 1.17 and 2.35, respectively. ($df = 1/48, 2/48; ps > .10$)

No significant differences between sex and ethnic groups existed on the measures of Self-Adjustment, Social Adjustment and Physical Adjustment. The overall means for these three areas, expressed as T-scores, were: self-adjustment, 46; social adjustment, 51; and physical adjustment, 75. The mean scores indicate average self and social adjustment, and excellent physical adjustment. The Self- and Social Adjustment measures correlated highly ($r = .62$) with each other, while showing only slight correlation with Physical Adjustment ($rs = .10$ and $.12$). The low correlation of Physical Adjustment may have resulted from high ratings and a restricted range of scores on the measure.

By the Hollingshead Two Factor Index method (1957), the overall socio-economic class mean was 60.3, which corresponds to Class Five (V), the lowest social class. An F ratio of 4.17 ($df = 2/48, p < .05$) indicated significant differences in socio-economic level among the ethnic groups, with the Anglo mean at 54, the Mexican mean at 59 and the Black mean at 69. The mean ratings place Anglos and Mexicans in the lower half of Class Four (IV), and Blacks in the lower half of Class Five (V). In view of the significant differences in

socio-economic status between ethnic groups, the data were further analyzed by multiple regression analysis in order to control the effects of socio-economic class. Given the need to conduct a regression analysis to control for the effects of social class, the effects of age were also extracted as a covariate. It was expected that this would improve the sensitivity of the overall design.

Interpersonal Spacing

Linear Distance. The mean linear distance in centimeters for the four stage settings was: Home, 4.2; School, 4.7; Street, 4.6; and Outdoors, 2.3. Large standard deviations for the School and Street scenes (3.0, 3.6) indicate considerable variability in spacing for those scenes. The closer average distance for the Outdoor scene results in part from an unintentional center pull in the background scene. Distances represented in the four scenes yielded low intercorrelations (median $r = .15$).

While sex and ethnic group were expected to account for significant differences in linear distancing, these effects were not found. In the Home scene there was a significant effect of Self-Adjustment on the averaged distance between the family members, with an F ratio of 3.10 ($df = 1/45$, $p < .10$). In the direction predicted, children with higher Self-Adjustment scores represented closer distances between

family members than children with lower Self-Adjustment scores.

For the Home setting linear distance was also analyzed by the spacing between each of the six dyads: mother-father, mother-child, mother-sibling, father-child, father-sibling and child-sibling. Age was found to exert a significant effect on distance between the mother-sibling ($F = 8.15$, $df = 1/45$, $p < .01$) and the father-child ($F = 7.14$, $df = 1/45$, $p < .05$) pairs, showing that older children placed greater distance between the pairs than younger children. Distance between the father-child pair was also influenced by self-adjustment ($F = 4.40$, $df = 1/45$, $p < .05$), revealing that Ss with higher Self-Adjustment scores represented closer spacing between the father and the child than Ss with low Self-Adjustment scores. A significant effect of socio-economic rating on distance occurred in the child-sibling spacing ($F = 4.38$, $df = 1/45$, $p < .05$). Children from lower socio-economic backgrounds placed greater distance between the child-sibling pair than Ss of higher socio-economic levels.

The summary family distance variable supported the trend toward high Self-Adjustment and close family spacing, although the effect was slightly below the .10 level of confidence ($F = 2.41$, $df = 1/45$). No significant effects from the independent variables on linear distance existed in the School, Street or Outdoor scenes, nor for the summary variable of total linear distance across the four settings.

Thus, for linear distance there was support in the Home setting for the hypothesis that children with high adjustment scores would represent close spacing between human figures. There was also an indication that older children placed greater distance between family members than younger children. Contrary to expectation, main effects for ethnic group were not found.

Grouping Schemata. For the Home scene the mean grouping arrangement was category 5, which corresponds to two separate subgroupings of the four dolls. The average dyad arrangements for the School and Street scenes were in the direction of close, directly oriented placement; however, large standard deviations suggest variability toward less connected grouping. The mean triad arrangement in the Outdoor scene was category 3, which corresponds to a closely connected placement. The standard deviation was small, indicating consistent, close placement, attributable in part to background pull. Grouping schemata intercorrelation between the four scenes was low (median $\underline{r} = .02$); however, as expected, the grouping arrangements correlated highly with linear distance measures for the four settings (median $\underline{r} = .69$).

In the Home scene there were significant effects on grouping for three of the independent variables. An \underline{F} ratio of 8.02 ($\underline{df} = 1/45$, $p < .01$) for age indicates that older \underline{S} s arranged the family in a less

directly oriented group than did the younger Ss. In the direction of the hypothesis, a marginally significant relationship emerged between Self-Adjustment and grouping ($F = 3.47$, $df = 1/45$, $p < .10$), suggesting that children with lower Self-Adjustment scores placed the family in a less connected grouping, while children with higher Self-Adjustment arranged the family in more direct orientation. However, effects for Social Adjustment were in the opposite direction. An F ratio of 2.88 ($df = 1/45$, $p < .10$) was attained, suggesting that Ss with higher Social Adjustment scores arranged the family in less direct, more distant patterns than Ss with low social adjustment.

The grouping schemata obtained for the school setting revealed the same pattern of effects for age, Self- and Social Adjustment as did the Home setting. Older children and those with higher Social Adjustment used less connected, more distant grouping of the child and teacher dolls, while younger children and those with higher Self-Adjustment produced more directly connected placement.

There were no significant effects on grouping arrangement in the Street setting. For the Outdoor setting an F ratio of 4.09 ($df = 1/45$, $p < .10$) for Social Adjustment suggested that Ss with higher social adjustment produced a closer, more directly-oriented arrangement of their peers, while less socially adjusted Ss used a less connected arrangement. The summary grouping variable revealed that age exerted signifi-

cant effects ($F = 8.31$, $df = 1/45$, $p < .01$) in the direction of more distant grouping by older subjects. Adjustment produced no significant effects on the summary variable.

To summarize the effects of the independent variables on grouping schemata, there is an apparent trend for older Ss to represent less connected arrangements between human figures than younger children. With respect to adjustment, different patterns were indicated for Self-Adjustment and Social Adjustment. Children with high Self-Adjustment produced closely connected groupings in two settings (Home and School), while children with high Social Adjustment used more distant groupings in the same settings. In the final setting (Outdoors) high Social Adjustment produced the predicted effect of close grouping.

Content Analysis

Each content category had a total score range from zero to twelve across the four settings.

Moving Toward. In the four categories which represent Moving Toward interactions, the mean scores ranged from .25 for Affection to 4.6 for Acceptance. Age and ethnic group produced F ratios of 3.78 ($df = 1/45$, $p < .05$) and 3.63 ($df = 1/45$, $p < .05$), respectively, for the Acceptance category. Older Ss expressed more acceptance than younger Ss. Black children had the lowest acceptance scores, Anglos

were intermediate, and Mexicans had the highest acceptance scores. Since the Acceptance category is assumed to reflect interpersonal closeness, the ethnic effect is in the direction predicted. However, this effect must be interpreted with caution since the Acceptance category reliability coefficient was below the .05 level of confidence. For the Affection category Physical Adjustment produced an F ratio of 19.30 ($df = 1/45$, $p < .001$), indicating that children with lower Physical Adjustment scores expressed more affection than children with higher Physical Adjustment scores. This effect may also be spurious since Affection was a second content category which did not produce acceptable reliability.

The categories of Submission and Dominance were highly correlated ($r = .77$), with mean scores of .96 and 1.8, respectively. An F ratio of 3.62 ($df = 1/45$, $p < .10$) for effects of Social Adjustment on Submission suggests that children with higher Social Adjustment scores express more submission than children with lower Social Adjustment scores, a result in the direction predicted. A significant effect for sex occurred in the Dominance category ($F = 3.02$, $df = 1/45$, $p < .10$), revealing that girls expressed more dominance than boys.

For the four content categories assumed to reflect interpersonal closeness, two effects were in the direction hypothesized. High Social Adjustment scores corresponded with high scores on Submission,

and ethnic effects revealed Mexicans were highest, Anglos were intermediate and Blacks were lowest in levels of Acceptance.

For the summary variable representing the total of the Acceptance, Affection, Submission and Dominance categories, two main effects were revealed. Age exerted a marginally significant effect on Moving Toward interactions ($F = 2.86$, $df = 1/45$, $p < .10$), indicating that older children expressed more proximal behaviors than younger children. Social Adjustment tended to account for a significant amount of variance ($F = 3.74$, $df = 1/45$, $p < .10$) revealing that Ss with high Social Adjustment scores expressed more Moving Toward interactions.

Moving Away. The categories of Escape, Frustration and Rejection were highly correlated with each other (median $r = .93$) and showed no relationship with five independent variables. In the fourth category, Anxiety, a significant amount of variance was accounted for by Social Adjustment ($F = 7.19$, $df = 1/45$, $p < .05$) and ethnic group ($F = 4.13$, $df = 1/45$, $p < .05$). Subjects with higher Social Adjustment scores produced stories containing more Anxiety than Ss with lower Social Adjustment scores. The relationship of Anxiety to ethnic group showed that Mexican children had the highest Anxiety scores, Anglos were intermediate and Blacks had the lowest scores. If Anxiety were assumed to be indicative of increased interpersonal distance, these effects are in the opposite direction from that hypothesized.

However, there is some question as to what the category is measuring, since Anxiety correlates only slightly with Moving Toward categories (median $r = .02$) or Moving Against categories (median $r = .06$). In contrast, the other Moving Away categories show the greatest correlation with Moving Toward (median $r = .46$).

The summary variable for the Moving Away category (i.e. the total of Anxiety, Escape, Frustration and Rejection) failed to reveal any significant relationships with the independent variables.

Moving Against. Intercorrelations among the four Moving Against categories were low (median $r = .13$), with the strongest relationship between Verbal Hostility and Physical Hostility ($r = .52$). The Self-Adjustment and Social Adjustment measure showed effects in opposite directions for Verbal Hostility. Subjects with high Self-Adjustment and low Social Adjustment expressed more Verbal Hostility than Ss with low Self-Adjustment and high Social Adjustment. Social Adjustment tended to account for a significant amount of variance in the same direction for Physical Hostility ($F = 3.03$, $df = 1/45$, $p = < .10$). Children with lower Social Adjustment expressed more Physical Hostility than did those with higher Social Adjustment, a result in accord with hypotheses. In addition, boys tended to express more physical hostility than did girls ($F = 3.60$, $df = 1/45$, $p < .10$). For the category of Hostility-Death an F ratio of 3.40 ($df = 1/45$, $p < .10$) indicates a

marginal association with socio-economic class. Subjects from the lowest socio-economic class expressed more Death Hostility than Ss with higher socioeconomic ratings. There were no significant effects for the Crime category.

Summing the scores for the three categories of Hostility and the Crime category, the Moving Against total is shown to be significantly affected by Social Adjustment ($F = 3.53$, $df = 1/45$, $p < .10$). High Social Adjustment scores tended to be linked with low levels of Moving Against interactions.

Outcome. The favorable outcome category and age show an F ratio of 7.28 ($df = 1/45$, $p < .05$), indicating that older Ss produced stories with favorable outcomes more often than younger children.

In summarizing the trends of significant effects in the Content Analysis, older children appear to function in the direction of interpersonal closeness, expressing more acceptance and producing more favorable outcomes. Variance accounted for by sex shows that girls express more dominance and less physical hostility than boys. Ethnic effects show Mexicans highest, Anglos intermediate, and Blacks lowest in both Acceptance and Anxiety. Effects for Adjustment are complex. Low Physical Adjustment accounts for more Affection than high Physical Adjustment, while low Social Adjustment accounts for more Verbal Hostility and more Physical Hostility than high Social Adjustment. High Self-

Adjustment is also associated with high levels of Verbal Hostility, and high Social Adjustment relates to high levels of Submission and Anxiety.

The summary variables of Moving Toward, Moving Away and Moving Against reveal a consistent effect for age and a hypothesized effect for Social Adjustment. Older Ss expressed more Moving Toward behaviors than younger children. High Social Adjustment was significantly related to high levels of Moving Toward behaviors and to low levels of Moving Against behaviors.

Examiner-Subject Interaction Ratings

The means for the six test-behavior rating scales ranged from 2.8 to 3.5, the lowest mean corresponding to attention and the highest to activity level. The median correlation coefficient showed relatively low intercorrelation ($\underline{r} = .39$). Attention correlated highly with Cooperation ($\underline{r} = .75$), and Quality of Response correlated with Enthusiasm ($\underline{r} = .63$) and Self-Confidence ($\underline{r} = .65$). A significant negative correlation existed between Level of Activity and Cooperation ($\underline{r} = -.43$) and between Level of Activity and Attention ($\underline{r} = -.48$). The scales were intended to explore relationships between test-taking behavior and the independent variables, with no hypotheses asserted. For the most part, the scales showed significant relationships to the variables of age and adjustment. Age produced a significant effect on five of the six scales,

with more positive scores evidenced for older children. Self-Adjustment accounted for significant variance on two scales, Enthusiasm and Level of Activity. The trend was for more positive behavior for well-adjusted children.

Direction of Attention. The mean score for attention corresponded to approximately seventy-five per cent on-task, twenty-five per cent off-task behavior during testing. A main effect for age ($F = 5.24$, $df = 1/45$, $p < .05$) indicated that older children were more attentive to the task than younger children; however, the effect must be regarded cautiously due to the low level of reliability obtained for the scale ($r = .52$).

Enthusiasm. The mean score for Enthusiasm indicated that in general the Ss did not overtly express pleasure in the task. A general characterization is one of indifference rather than enthusiasm. Age, Self-Adjustment and socioeconomic level produced significant F ratios for Enthusiasm. Older Ss were more eager and appeared to enjoy the task more than younger Ss. Children with high Self-Adjustment scores appeared to be more enthusiastic than Ss with lower Self-Adjustment. Ss from the lower socioeconomic class showed greater enthusiasm than Ss from higher socioeconomic levels.

Level of Activity. The mean score for activity was 3.5, indicating a trend toward slightly high levels of activity, as defined by the

S's movement of the dolls and his movement in the chair. Older Ss showed a lower level of activity than younger Ss ($F = 2.90$, $df = 1/45$, $p < .10$). Higher Self-Adjustment scores tended to be associated with lower levels of activity ($F = 2.95$, $df = 1/45$, $p < .10$). However, the effects for this category must be evaluated with caution due to the low reliability of the scale ($r = .47$).

Cooperation. A mean score of 3.0 suggests that Ss followed general instruction and adapted to limits set by E. A significant effect for age shows that older Ss were more compliant and made fewer attempts to change the structure of the task than younger children ($F = 5.23$, $df = 1/45$, $p < .05$).

Quality of Response. The mean score for Quality of Response was 2.98, which describes a story with some interaction between the characters, accompanied by little explanation of the consequences. Stories often contained an indefinite outcome. An F ratio of 14.65 ($df = 1/45$, $p < .001$) indicates that older Ss produced better quality stories than younger Ss. A marginal effect for ethnic group suggested that Blacks presented stories of poorest quality, Mexicans were intermediate and Anglos produced the best quality stories ($F = 3.03$, $df = 1/45$, $p < .10$).

Self-Confidence. The mean score on this scale was slightly above the midpoint, which is in the direction of a self-assured manner

of response. Ss were generally characterized as cautious but responsive, needing some encouragement to get involved in the task. None of the independent variables accounted for a significant amount of variance in self-confidence.

In summary a clearly consistent effect of age appeared on test-taking behavior, indicating more positive (e.g. attentive, cooperative, enthusiastic) behaviors, a more appropriate activity level and better quality responses from older children. Higher Self-Adjustment scores were associated with greater enthusiasm and more appropriate activity levels. Ethnic group, sex and socioeconomic class did not relate to consistent patterns of test-taking behaviors.

CHAPTER IV

DISCUSSION

The primary purpose of the present study was to explore the effects of ethnic group, sex and personal adjustment on interpersonal spacing in a symbolic task. The expectation for ethnic group variation in spatial orientation was not upheld. No significant differences in linear distance or grouping schemata were found between Black, Anglo and Mexican children. As expected, minimal sex differences emerged. However, main effects did exist for personal adjustment and age. In the direction of the predictions, closer spacing and more directly-oriented grouping of human figures were produced by children rated high in self-adjustment. Differing patterns emerged for social adjustment, differences possibly attributable to the effects of the setting and the relationship of the interactants. High social adjustment was associated with less connected grouping in Home and School settings, and conversely, produced more directly-oriented grouping of peers in a playground setting. The assumed authority relationship between the child and his parents or teacher may account for increased distance in the home and school settings, while peer relationships in an unstructured, play situation appear as more proximal. Such an interpre-

tation is consistent with previous research concerning the relationships of interactants. In real-life situations children have been found to converse at closer distances with their peers than with their parents (Willis, 1966).

In addition to adjustment, age emerged as a significant influence on spacing. Older children consistently produced less connected, more distant patterns of spacing than younger children.

As a secondary focus, the content analysis of the projective story technique produced interesting relationships between ethnic, sex and adjustment variables. In accord with hypotheses, a trend toward expression of closer, more positive interaction by Mexicans was apparent, while Anglos produced intermediate levels and Blacks expressed least pro-social behavior.

Sex differences revealed that females clearly exhibited more dominant, authoritative story interactions than males, interactions which were regarded as positive, moving toward behaviors. On the other hand, males expressed more physical hostility, clearly aggressive in nature, than females, suggesting that expression of rather stereotyped sex roles is part of early social learning experience.

Additionally a measure of social adjustment influenced thematic content in the direction of the hypothesis. Children rated as socially well-adjusted expressed more moving toward interactions and fewer

moving against behaviors than children with lower social adjustment. Finally, older subjects expressed more moving toward behavior and more positive story outcomes than younger children. The effect of age on thematic material is in apparent contrast to results of the distance and grouping measures, which indicated that older children preferred greater distances and less direct orientation, particularly in the Home setting. One interpretation suggests that older children were able to express their emotions verbally while younger children, with fewer verbal skills, represented emotions more exclusively by spacing. This interpretation is supported by the overall better quality of thematic expression by older children, based on the quality of response rating scale.

The exploratory measures of test-taking behavior indicated patterns of behavior related to age and adjustment. Older Ss were rated more highly on such positive behaviors as attention, enthusiasm, and cooperation, and produced better quality stories, while displaying a more appropriate activity level than younger children. Children with high self-adjustment appeared to enjoy the task more and displayed more acceptable activity levels than Ss with low self-adjustment. The one marginal ethnic effect on behavior was related to the quality of stories produced, with Anglos producing the most complete stories, Mexicans intermediate, and Blacks creating stories with least interaction.

Thus, based on measures of linear distance and grouping schemata, the major hypothesis of ethnic variation in interpersonal spacing was not upheld. However, a trend in the direction predicted did exist for thematic content, in which the highest level of moving toward behavior was expressed by Mexicans, with Anglos next, and Blacks at the lowest level of expression of pro-social behavior. As expected, minimal sex differences were found to exist in interpersonal spacing. The most consistent hypothesized effect was attributable to adjustment, supporting a trend toward more proximal and more positive approach behavior by well-adjusted children. A significant yet unpredicted variable was age, which generally indicates that older children were more responsive to the mode of testing, and with effects of race and adjustment held constant, were represented by greater verbal expression of pro-social behavior yet more distant spacing of human figures.

The absence of ethnic variation interpersonal spacing may relate to the mode of testing. The majority of studies of subcultural variation from which the hypothesis was developed were based on standardized real-life situations rather than symbolic tasks (Hall, 1959; Willis, 1966; Baxter, 1970; Thompson & Baxter, 1973). Studies comparing symbolic versus live interaction distances are few, and results tend to be inconsistent (Little, 1965).

Moreover, the physical appearance of the human figures in the present study may have introduced variations which the study was not designed to evaluate. The majority of the dolls were of Anglo appearance, with details of clothing and household objects, and occasionally with physical postures, which tended to pull specific interactions. For example, the mother doll was wearing an apron and the father doll appeared to be walking. These stimulus characteristics may have altered the minimal information conditions under which social schemata are postulated to emerge (Kuethé, 1964). That is, the distances represented between figures may have been a function of physical appearance and suggested motion. Such implied movement is basic to arguments that kinetic schemata exist (Lewit & Joy, 1967). Thus, ethnic variation in distancing may only appear with more systematic control of the physical characteristics of the figures, as well as the regulation of ethnic group membership and sex of both the subject and the stimulus figures.

Results are in closer accord with studies based on symbolic tasks (Weinstein, 1965; Fisher, 1967; Gerber & Kaswan, 1971), in which adjustment factors are primary influences on emotional themes and spacing. In the present study differences in distance, orientation and thematic material were found in relation to self-adjustment and social adjustment, suggesting that the behavior of these subjects in social interactions is primarily organized according to their personal

adjustment. This interpretation has interesting implications with respect to sources for adjustment variation within the sample (e.g. children from the drug culture and the High Risk clinics). Further analysis of interpersonal spacing patterns in relation to the referral groups (of the SEEC project) may suggest further relationships between adjustment and social schemata.

Several observations relating to the structure of the settings and representation of human figures seem worthy of note. The scene presenting a child and policeman consistently pulled aggressive behavior, often involving physical hostility. Rarely was the policeman described as a helper, with roughly ninety-five per cent of the subjects attributing negative characteristics to the officer. The teacher and child scene was often characterized by a punitive theme, in which the teacher was depicted as an authoritarian, punishing adult. The introduction of the Black doll into the peer group also accounted for interesting responses: There was a tendency for subjects of all ethnic groups to attribute negative characteristics to the Black doll, often indicating it to be the sole recipient or instigator of hostility, to the extent of isolating it from the Anglo dolls.

The strong influence of adjustment variables and the apparent variations in response to mixed-ethnic groups warrants further investigation. Experimental manipulation of the sex and ethnic group of the

interactants, as well as the subjects, along with controlled groups of subjects varying on the adjustment measure, would provide insight into the interaction of ethnic and adjustment variables. Additionally, further comparison of response to symbolic distancing tasks versus real-life situations seem justified.

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APPENDICES

APPENDIX A

**Administration
Examiner-Subject Interaction Rating Scales
Content Analysis
Grouping Schemata**

Administration

Before presentation of the first scene, a brief statement of general instructions should be made to S as follows:

Here are some dolls and a stage (point to the stage area).
We're going to make up stories about what the dolls are doing.
Let's pretend like you can make the dolls talk and walk (you can tell me what the dolls are saying and doing).

With the dolls for Scene I beside the stage, E introduces the dolls and models with the father doll, moving the doll and saying:

Hello everyone, here I am. Let's all go into the living room.
E may also compare the stage and story-telling to a television screen, repeating or elaborating further until the child indicates that he understands what he is to do.

The four scenes are presented with a statement of the setting and identification of the dolls. There are four subdivisions for each scene: (A) Placement, (B) and (C) Content, and (D) Outcome. Before each scene the examiner places the backdrop on the stage, selects the specified dolls and stands them on the table next to the stage. Making sure that S's chair is centered in front of the stage and as close to the table as possible, E then sets the scene with the statements given on the record sheet and proceeds with the four subsections.

Placement (A) is noted on the grid before the story develops. The dolls are represented on the grid by a circle proportionate to the

size of the dolls with an arrow indicating the appropriate orientation; i.e. the direction the doll is facing. A letter is placed above or near the circle identifying the dolls by the following notation: C-child, the same sex as the S, the same doll used in all four scenes; M-mother; F-father; S-sibling, opposite sex of S; T-teacher; P-policeman; P_O-peer, opposite sex of S; P_S-peer, same sex as S. If S holds the dolls or moves them about the stage, E insists on definite placement before the story proceeds.

In section B (Content), S is allowed to talk freely, without interruption, until he stops, becomes redundant, or removes himself and the dolls from the stage area. If a complete story is given, with description of each doll, the action and some interaction between dolls, section C may be skipped. Section C is primarily to elicit more content from Ss whose output in B is low. If minimal or no response was given in B, E asks what each doll is doing, or if this has been adequately indicated, asks what each doll is thinking or feeling. Section D attempts to elicit an outcome to the story in the manner indicated on the record sheet.

If no response is given to a section, E offers a minimum of three prompts by rephrasing the instruction. If S responds to the effect of "I don't know," E prompts with "guess, pretend, make believe, play like."

Additional questioning should be done if a response is vague or incomplete. For example, if the response to section B is "they're talking," E may ask "who's talking?" or "about what?" If E cannot understand the response, he may ask "what does that mean?" To elicit more specific interaction E may ask "what else?" or "then what?" etc. E should attempt to elicit specific interactions, taking note of which characters are interacting, particularly in the family and peer scenes (using the notation system listed above under placement).

Scoring

Content Analysis. The twelve content categories are scored according to criteria outlined under Content Categories. In stories with more than two characters, content categories are scored for each pair of characters. A check in the appropriate row and column indicates occurrence, while a blank indicates nonoccurrence.

An additional column for the Home scene, Whole Family, is checked when an interaction is globally described for the family; e.g. the family was playing a game together, they were all happy. Specific interactions are checked when possible.

One of the three major themes, Moving Toward, Moving Away, or Moving Against, is scored for each story. As a general rule this score is based on the highest combined total of interactions (occurrences)

in the four content categories under each of the three major themes. If two or more themes have an equal number of interactions, a score is based on E's judgment of the prevailing theme of the story. In some instances where a strong theme is not appropriately represented by the scoring system, E may score the theme according to his judgment. If there is not enough content to indicate a theme, no theme is scored.

Outcomes. An outcome is scored Favorable if the story has a happy or pleasant consequence for the main character (the Child doll). An unfavorable rating indicates conflict, failure or unhappy effects for the characters. An indeterminate outcome is scored for a vague or neutral effect and when no outcome is given. In general outcomes are judged from the point of view of the hero (Child).

Examiner-Subject Interaction Rating Scales. Circle the appropriate number on the six rating scales based on descriptions in the scoring manual. The undefined points fall between the defined points on the dimension.

Linear Distance. Distance is measured in centimeters on the grid represented on the record form. Measure from the center of one circle (refer to notation system under Administration) to the center of the other. For Scene I (family of four) measure the distance between each of the six pairs and record under Linear Distance-Expanded on

the record form. Then sum these distances, divide by six and record under Linear Distance (av.). For Scenes II and III with only two characters each, one linear distance measure is recorded. For Scene IV (three peers) note the expanded distance and the average distance as explained for Scene I.

Grouping Schemata. Record the number of the category which matches the doll placement according to the Grouping Schemata table in this manual.

Examiner-Subject Interaction Rating Scales

I. Direction of Attention. The extent to which the child focuses and directs attention to the Examiner (E) or surroundings versus the task. At the extreme of direction away from the task, the child is distracted by objects and events extraneous to the task, while at the extreme of direction toward task the child is completely absorbed in the task.

1. Primarily Off-task - directs attention to E or asks irrelevant questions of E. Distracted by dolls not in use, asks for additional dolls. Focuses attention on the equipment rather than the task. Approximately 20% on-task, 80% off-task.
2. 50% on-task, 50% off-task - evenly divided in on- and off-task behavior.
3. 80% on-task, 20% off-task - occasional distractions, primarily on-task.
4. One or two distractions.
5. Completely on-task - attends to the stage setting and the dolls as they are presented. Completely absorbed in the structured task, 100% on-task.

II. Enthusiasm. The extent to which the Subject (S) is eager to participate and appears to enjoy the task. This dimension ranges from complete noncompliance to expression of enjoyment.

1. Extremely Unenthusiastic - needs constant prompting, praise and encouragement to participate. Seeks to terminate the activity by saying he wants to stop, by noncompliance or withdrawal.
3. Indifferent - accepts and participates in the activity but shows no spontaneity or pleasure. Some prompting necessary but S does not attempt to terminate the activity.

5. Extremely Enthusiastic - S participates spontaneously E may have to terminate stories. Eager to continue the task, may express readiness to tell another story, enjoyment of the task, etc.

III. Level of Activity. This dimension reflects the quantity of physical activity. The scale ranges from extremely low, lethargic behavior to extremely high, excessive activity.

1. Extremely low activity - S sits still, waits to be prompted to act. Needs urging to place the dolls on the stage. Little or no manipulation of the dolls other than initial placement.
3. Moderate level of activity - moves dolls after initial placement. May change positions in chair several times.
5. Extremely high activity - S initiates activity and is quick to respond to new scenes. Continuous movement of dolls during stories. May move dolls off the stage to other parts of table, under table or to other parts of the room. May repeat actions several times. Out of chair or fidgeting, squirming in chair.

IV. Self-Confidence. The extent to which the child asserts his ideas, appears comfortable with the structure and the situation.

1. Extremely low self-confidence - asks about success, looks to E for approval. Reserved, speaks softly or inaudibly. Hesitates to reach out and get involved in task. Does not expand or improve answers when questioned. Needs assurance, praise.
3. Moderate self-confidence - Cautious but responsive to the task. Answers questions audibly. Needs some encouragement.
5. Extremely high self-confidence - assured, does not hesitate to relate stories. Speaks in normal volume. Confirms or expands remarks when questioned.

V. Cooperation. The extent to which the child follows instructions and limits set by E. This scale ranges from complete refusal to participate to assisting E in the procedure.

1. Extremely uncooperative - wants to change the structure by using additional dolls, changing scenes, moving the stage, etc. Asks that E contribute to or complete task. May leave the table. Ignores requests to terminate other activities. May overtly refuse to complete task.
3. Moderately cooperative - follows general instructions. May try to make slight changes; i.e. use additional dolls or change scenes before completion, but adapts to the limits set by E.
5. Extremely cooperative - follows instructions, complies with all requests. Accepts structure of questioning by E. Accepts E's choice of dolls. May assist E in the procedure.

VI. Quality of Response. The extent to which the S's stories are cohesive, with action carried from beginning to end, following the structure of placement, interaction and outcome. The low quality story is only descriptive, with little interaction between characters, and lacks sequential order. The high quality story narrates interaction between the characters, often includes dialogue, and follows sequential order.

1. Extremely poor quality - minimal content, only descriptive of physical characteristics or universal qualities (e.g. walking, standing). Nonsequential, fragmented action. Indeterminate or nonspecific outcomes.
3. Average quality - some interaction between characters, with little explanation of consequences. May not resolve or conclude action in outcome.
5. Extremely good quality - distinct interactions between characters, elaborated in sequence (i.e. actions, reactions). Usually narration and dialogue. Resolves or concludes the action with a plausible outcome.

Content Categories

Moving Toward

Acceptance: any favorable action short of affection, i.e. pleasure, assistance, gift-giving; engaging in a positive activity together. Do not score for eating, sleeping, walking, etc. unless described as pleasurable or a favorite activity.

e.g. they're happy, laughing, having fun, playing, etc.
she's gonna help him find it; his Daddy bought him a present.

Affection: indication of verbal or physical affection.

e.g. like, love, kiss, hug, friendship.

Submission: obedience; asking permission and obeying; following commands.

e.g. she asked if she could go play; the teacher said to sit down and do your work (Dominance) so he did (Submission).

Dominance: all commands and authoritative actions not of a hostile nature; control of one character by another.

e.g. mother told him to go to his room; teacher said for him to sit down and be quiet; boy told his sister to go swing; if he's good she will let him go outside and play; Mother told Daddy not to go to the store (Dominance) so he stayed home (Submission).

Moving Away

Anxiety: anxious, worried, insecure, afraid; sadness, depression.

Escape: runs away, escapes, hides (in the physical sense).

e.g. they're hiding from their mother; the monster was chasing him but he got away.

Frustration: failure, conflict; expressed desire or intention is thwarted by another character.

- e.g. he wants to go outside but the Teacher says no; mommy says yet but daddy says no; the boy tore up the presents his father bought him.

Rejection: action which results in a character being left alone, being neglected, getting lost; leaving angrily.

- e.g. she said "want to play?" but he said "no"; she waited and waited but her mommy never came; the teacher got mad (hostility-verbal) and left him (rejection).

Moving Against

Hostility-verbal: aggressive or unfriendly act or intent without physical contact; anger, threat of hostility.

- e.g. they hate (don't like) him; she won't play with him; mother said she'd whip him if he left home.

Hostility-physical: aggression with physical contact, or bodily injury. Score if one doll is hit or knocked down by another without description.


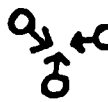




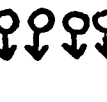
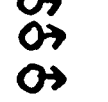

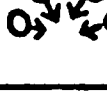
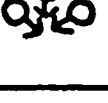


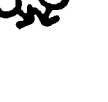
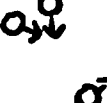
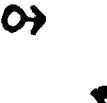

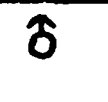

- e.g. spank, whip, kick, hit, knocked down, shot with water gun, step on toes, etc.

Hostility-death: hostile act results in death.

- e.g. she doesn't like him (hostility-verbal) so she beats him up (hostility-physical) and he gets killed (hostility-death).

Crime: any obvious crime committed by a character or attributed to a character; implication of crime by incarceration.

- e.g. he stole her purse; the boy had to go to jail, the policeman took him to jail.

	Grouping Schemata Types	Examples			Description
		Family	Triad	Dyad	
Degree of Connectedness	I. All dolls grouped together.				1. All dolls grouped together, facing each other.
					2. Dolls grouped together, all facing same direction.
					3. Dolls are parallel, facing in same direction.
					4. Dolls grouped in semi-circle, all facing toward center.
	II. Two separate subgroupings.				5. One subgroup with common focus, w/one doll separated by distance and/or orientation.
					6. Two subgroups made up of 2 dolls each.
	III. One or no subgroupings.				7. Two dolls grouped together, w/2 other dolls separated by distance and/or orientation.
					8. All dolls separate from all other dolls by distance and/or orientation so that there are no close groupings or sub-groupings.

Scoring:

For each scene (1-4) assign the number 1-8 of category representing the doll placement noted on grid of the protocol. Separation by distance occurs when doll figures are separated by 2 or more large squares (a large square is bounded by heavy lines, one of 32 on the grid).

APPENDIX B

Population Characteristics

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Population Characteristics

1. Number of Ss by Sex and Ethnic Group

	Anglo	Black	Mexican	Total
Male	9	9	12	30
Female	3*	14	7	24
Total	12	23	19	54

2. Mean Age in Months by Sex and Ethnic Group

	Anglo	Black	Mexican	Total
Male	57.5	57.7	53.1	55.8
Female	67.0	55.8	55.6	57.1
Total	59.9	56.6	54.0	56.4

*Due to the small number of Ss in this cell, the interaction effect of sex and ethnic group was not analyzed.