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ABSTRACT

This study was designed to determine if the sociodramatic play behavior of two groups of children would be similar when socioeconomic status was held constant. Subjects were 54 black and 54 white kindergartens of high socioeconomic status. Sociodramatic play is defined as play in which a child takes on a role, elaborates a theme in cooperation with at least one other role player, and interacts with at least one other child both actively and verbally. Play ability was evaluated in terms of six elements: imitative role play, persistence, interaction, verbal communication, and make-believe in regard to objects and situations. Each group of four subjects (two boys and two girls) was studied for one 30-minute period in a special playroom with housekeeping, grocery store, and doctor's office areas. Each child's mental ability was measured immediately after the play period using the Goodenough Drawing Test. Black subjects played significantly better than whites, but no significant relationship was found between IQ scores and level of sociodramatic play. (ED)

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A COMPARISON OF THE SOCIODRAMATIC PLAY ABILITY  
OF  
HIGH SOCIOECONOMIC STATUS BLACK KINDERGARTEN CHILDREN  
AND  
HIGH SOCIOECONOMIC STATUS WHITE KINDERGARTEN CHILDREN

By

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The Ohio State University, 1972

During the period 1970-1972 a group of graduate students at  
The Ohio State University had the privilege of participating in  
a weekly seminar on child's play. Our seminar instructor was  
Dr. Sara Smilansky from the University of Tel Aviv. The longer  
we studied this entire area of play it became readily apparent  
that it might be advantageous to describe one particular type of  
play, sociodramatic play, of a large group of children. In so  
doing it would be possible to control certain confounding vari-  
ables such as size of sample, age of subjects, and play setting.  
At the same time other variables such as a socioeconomic level and/  
or cultural group membership could be systematically manipulated.  
As you may be aware sociodramatic play, as defined by Sara  
Smilansky, is play in which a child takes on a role, elaborates  
a theme in cooperation with at least one other roleplayer, and  
interacts with at least one other child both in action and verbally.

The plan of research included eleven different studies.  
Second graders were the subjects for two of these studies.  
Sears (1972) investigated the use of the sociodramatic play be-

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havior of lower socioeconomic second graders as one predictor of school achievement. Weingerot (1972) explored the relationship between locus of control and the play behavior of the same group of second graders.

Kindergarten children were the subjects for the following nine studies: comparison of the play behavior of children of differing socioeconomic levels (Griffing, 1970); comparison of the play behavior of different cultural groups (Lindberg, 1971); comparison of the play ability of the same children in two different settings (Soiberg, 1972); uses of toys in play (Woodside, 1971); relationship between categorization ability as measured by a sorting task and play (Robinson, 1971); creative ability as measured by a pencil and paper test and play (Sachs, 1971); perceptual motor abilities and play (Lynum, 1972); and various cognitive abilities and play behavior (Lewis, 1972).

The major objective of this particular segment of the comprehensive study was to determine if the sociodramatic play behavior of two groups of children would be similar when socioeconomic status (SES) was held constant. Play ability was evaluated in terms of six elements, defined by Smilansky (1968, p. 9) and redefined by the graduate students at The Ohio State University, which are essential to the development of sociodramatic play ability. The six elements are

1. Imitative role play. The child undertakes a make-believe role and expresses it in imitative action and/or verbalization. He enacts the character of a person (or animal)

other than himself or self in another context.

2. Make-believe in regard to objects. Toys, unstructured materials, movements, or verbal declarations are substituted for real objects. A toy being used in a way other than intended is also make-believe with objects.
3. Make-believe in regard to situations. Verbal descriptions are substituted for actions and situations.
4. Persistence. The child persists in a play episode for, at least five minutes.
5. Interaction. There are at least two players interacting in the framework of the play episode and at least one child directs an action or words to the other child. He intends for the other child to respond at least by listening.
6. Verbal communication. There is some verbal interaction related to the play episode.

Three hypotheses were tested:

1. There will be similarities in the sociodramatic play of high SES Black and high SES white kindergarten children on the basis of each child's total score and each of the subscores of the play elements measured.
2. There will be similarities in the sociodramatic play of high SES boys and high SES girls on the basis of each child's total score and each of the subscores of play elements measured.

3. There will be no significant relationship between the level of sociodramatic play of high SES kindergarten children as measured by total play score and their intelligence as measured by the Goodenough Drawing Test.

The following assumptions were made in this study:

1. The elements regarded by Smilansky as essential parts of any well-developed sociodramatic play are valid and the verbal and nonverbal behavior of children can be evaluated in terms of these elements.
2. The measure of a child's mental ability, The Goodenough Drawing Tests, is valid and reliable.
3. The data collected was analyzed by the appropriate statistical procedures.

This study was limited by the following:

1. Subjects for this study were selected on a convenience basis. Reasons for this type of selection will be discussed at a later time in this paper. Thus, caution is suggested in generalizing from the results of this study to other populations.
2. A play room was set up in each school; hence, there was diversity in the size of and the acoustical properties of those rooms used. A smaller play area may have inhibited the play of some children.. Rooms without rugs and with high ceilings hampered the audio recording attempts.
3. The presence of four observers during the play period

may have become a stimulus to incite or inhibit certain behaviors or to modify others. Although effort was expended to make the observers unobtrusive, in the summary statements of two Black and four white subjects, the observers made note of the self-consciousness of the subjects during play. It is certainly possible that other subjects compensated for their self-consciousness in ways not detected by the observers.

4. Even though one observer was given the task to record the behavior of just one child, it became extremely difficult to write verbatim records of the activities, verbal communication, and interaction of the most energetic players. This was noted in summary statements on four of the Black subjects. There was a tendency, then, to record systematically all of the verbal and nonverbal behavior of the poorer sociodramatic player and not to record all the verbal and nonverbal behavior of the better player. Audio taping, a supplementary recording device, proved unsuccessful because of the acoustical limitations of many of the play settings.

### Procedures

#### Subjects

Subjects were 108 kindergarten children, half of whom were Black and half of whom were white, but of similar socioeconomic

status. The fifty-four Black children selected for study were drawn from one private school and five public schools in Columbus, Ohio. Establishing a pool from which to draw high SES Black subjects was a difficult task, for high SES Black students were few in number and scattered throughout the community. The sampling procedure was dictated by the characteristics under study rather than by the relative proportion of Blacks in the population. Subjects were drawn from schools where at least four high SES Black children could be observed at play. The fifty-four white children selected for study were drawn from the same private school in Columbus and two suburban school districts, Whitehall and Worthington. White subjects were drawn from a total of six schools also.

#### Socioeconomic Status

SES was determined by means of the Index of Socioeconomic Status (Institute for Developmental Studies unpublished monograph, 1965). Two factors are used to estimate the relative social positioning of individuals in a given community. These factors are the main support of the family and the educational preparation of the main support of the family. A student had to attain a rank of III on the Index of Socioeconomic Status to be selected for study. Each Black subject of the sample was paired with a white subject on the basis of educational level of the main support of the family.

#### Other Information

Other relevant information concerning the subjects of the

study: father's presence in the home, mother's educational level, mother's employment status, and number of children in the family was gathered. The chi square test ( $X^2$ ), a measure of discrepancies that exist between observed and expected frequencies, was applied to this data. For purposes of this study significance was established at the .05 level of confidence. The two groups were significantly different in terms of only one of the variables listed above. Four times as many Black mothers were employed as were white mothers.

Data Collection

Each group of four subjects, two boys and two girls, was studied for one thirty minute period in a special playroom set up for this purpose. Three major play areas were set up in the playroom. There was a housekeeping area, a grocery store, and a doctor's office.

Each observer made a specimen record of one child's verbal and nonverbal behavior. Time was recorded systematically every five minutes to obtain an indication of the duration of behaviors. The specimen record rather than on-the-spot coding or rating was used because of the number of variables studied and the time needed for analysis.

Immediately following the thirty minute play period the Goodenough Drawing Test was administered to provide a measure of each child's mental ability. Each subject was given both the Draw-A-Man Test and the Draw-A-Woman Test.





### Data Analysis

The investigator scored the drawing tests of the white subjects of the sample while Lindberg, a fellow investigator, scored the drawing tests of the Black subjects. To establish interrater reliability, ten Draw-A-Man Tests and ten Draw-A-Woman Tests were scored independently by Lindberg and the investigator. Using the Pearson product moment coefficient of correlation, the reliability yielded for the Draw-A-Man Test was .950 and the coefficient yielded for the Draw-A-Woman Test was .940. Raw scores for each test were converted to standard scores and a mean standard score was then computed for the man and woman drawing.

Griffing, a fellow investigator, scored the play protocols of the Black subjects and this investigator scored the play protocols of the white subjects. Interrater reliability was established by independently scoring twenty protocols and computing a Pearson product moment coefficient of correlation. The interrater reliability coefficient yielded was .882.

Each play protocol was evaluated in terms of the six elements of sociodramatic play and each element of play for each five minute period was given one of these ratings

- 0 - that the element was absent from the play during that five minute period
- 1 - that element was present only or slight
- 2 - that element was present in a moderate amount
- 3 - that element was extensively used or highly elaborated during that five minute period.

A total score for each element of play for the thirty minutes

was determined.

### Results

The play data was analyzed using a multivariate analysis of variance. The dependent variables of this study, the dimensions of an individual's behavior which were of importance were the scores for each of the six elements of sociodramatic play and the child's total play score. The independent variables of the study were race, sex, and intelligence. For purposes of this study significance was established at the .05 level.

As you will recall, three hypotheses were tested. Results of the analysis will be reported for each of the three hypotheses.

#### Play Behavior and Race

Hypothesis one, that there would be similarities in the sociodramatic play of high SES Black and high SES white kindergarten children on the basis of each child's total play score and each of the subscores of the play elements measured, was not confirmed. Black subjects played significantly better ( $p = .001$ ) than white subjects. Range and mean of total play score, mean scores for all six elements of play, and standard deviations were greater for Black subjects. Mean scores for four play elements: role play, make-believe in regard to actions and situations, interaction, and verbal communication, were twice as large or nearly twice as large as the mean scores of the white subjects on the same elements.

### Play Behavior and Sex

Hypothesis two, that there would be similarities in the sociodramatic play of high SES boys and high SES girls on the basis of each child's total play score and each of the subscores of the play elements measured was confirmed. Although the mean total play score for the girls was five points greater than the mean total play score of the boys and the mean scores for five of the six elements of sociodramatic play (role play, make-believe in regard to objects, persistence, interaction, and verbal communication) were greater for girls than boys, these differences were not statistically significant. However, the F ratio for one element, interaction, was approaching significance. Girls, and specifically white girls, interacted more often in their play than any of the other subjects of the sample.

### Play Behavior and IQ

The final hypothesis, that there would be no significant relationship between the level of sociodramatic play of high SES kindergarten children as measured by total play score and their intelligence as measured by the Goodenough Drawing Test, was also confirmed. High IQ subject's mean total play score was three points greater than low IQ subject's mean total play score; this difference was not significant. One puzzling finding emerged when the play of high and low IQ subjects was compared by race. The mean play score of Black high IQ subjects was greater than the mean play score of Black low IQ subjects. In contrast, the mean play score of white low IQ subjects was larger than the

mean play score of white high IQ subjects. Neither of these differences were statistically significant, however.

### Discussion

#### Findings Concerning Play Behavior and Race

The results of the present study are partially consistent with previous studies (Eifermann, 1971; Marshall, 1961; Piaget, 1951; Smilansky, 1968) which have found that high SES children in early childhood participate in a type of play that is termed sociodramatic play by Smilansky. However, differences, significant at the .001 level, did exist in the play behavior of the children of the study. Black children scores consistently and significantly higher on each of the subscores of play and total play score. Speculation concerning reasons for these differences will be discussed.

A secondary objective of this study was to develop a means of analyzing play which would give a somewhat finer discrimination than the measuring technique used by Smilansky (1968). Smilansky's evaluation of a child's play was based only upon presence or absence of the six elements of sociodramatic play and it did not measure the elaboration of the content of play nor the frequency of it. In this study not only was the presence or absence of each element identified but for each five minutes of play a rating based on amount and elaboration of each of the six elements was also given:

All subjects of the study utilized one or more of the six elements sometime during the thirty minutes of play. However,

significant differences were noted because the scale used to identify and rate the play was more discriminating than Smilansky's method. Still, the use of the rating scale in itself, does not provide any suggestion as to the underlying reason or reasons why Black subjects would play significantly better than the whites. Certain other factors must be considered.

White subjects of the study were somewhat older than the Black subjects. The mean age of white subjects was 72.69 months while the mean age of Black subjects was 70.44 months. Since Eifermann (1971) and Piaget (1951) concluded that participation in sociodramatic play decreases in frequency in high SES children as a child nears the age of seven it was hypothesized that older subjects of the study, particularly white subjects, were beginning to move into the next stage of play development, games with rules; thus sociodramatic play had declined to a more or less relatively stable level. However, when a four-way analysis of variance was performed using race, age, sex, and IQ as independent variables and total play score as the dependent variable it was found that of the four groups of white subjects who manifested the highest levels of play, three of the groups were older children. Conversely, three of the four groups of Black subjects who played best sociodramatically were younger children. Apparently, significant differences in level of sociodramatic play of high SES Black and white subjects can not be explained by the differences in age of subjects.

Mother's employment may be a third factor to consider. As

I mentioned earlier, when the chi square test was applied to information concerning mother's employment status there was a significant difference at the .001 level with the distribution of mothers who were employed outside of the home. Almost one-half of the Black mothers were employed. Only six of the white mothers were also employed. On the basis of previous research concerning the effect of mother's employment on family relationships one can speculate about the effect of her employment on a child's ability to play sociodramatically.

Hoffman (1960) and Powell (1961) studied the effects of the employment of white mothers on the division of household tasks and the making of decisions concerning these household tasks. The researchers reported that working mothers participated less than non-working mothers in household tasks and made fewer decisions about routine household matters. In turn, the husband or other adults in the family in which there was a working mother assumed more responsibility for household tasks and for decision making concerning these tasks. It would seem that children who have seen not only their mother, but other adults as well, performing household tasks would have additional role behaviors to imitate and they might be more accepting of role play in other children that differed from the way they might choose to interpret a role.

Mother's employment may influence the child's sociodramatic play in still other ways. Working mothers may have less time to spend with their children. Perhaps, then, the father spends more time interacting with the child and again the child would be ex-

posed to other roles that a father might play. On the other hand, children may have to learn to entertain themselves, involve themselves with other children in the family, or seek out playmates in their neighborhood. In doing so qualities of importance to well-developed play such as initiative, independence, and sociability may be developed.

To summarize, significant differences were found in the play of high SES kindergarten children. It was speculated that these differences may be explained in terms of several factors working independently or cooperatively. The factors which were discussed included the method of analysis of data, the age of subjects, and the mother's employment.

#### Findings Concerning Play Behavior and Sex

Results of the present study confirm the results of the Marshall and Hahn (1967) study since there were no significant differences in the sociodramatic play of the high SES boys and girls. These same findings also seem to confirm Pulaski's (1968) findings that there were no significant differences between the sexes of her study in terms of amount of fantasy production.

Certain findings, although not significant, lend support to the findings of two other research studies. Hurlock (1964) noted that boys have more ideas for dramatic themes than girls. Boys of the present study, when standard deviations for each play element were examined, varied more in terms of four of the elements of sociodramatic play: role play, make-believe in regard to ob-

jects, make-believe in regard to actions and situations, and persistence. Since the rating scale used in this study considered both the quantity of each element and the quality of its use in terms of elaboration, perhaps these results partially confirm Hurlock's findings.

The mean scores for all girls on all of the play elements except one, make-believe in regard to actions and situations, were greater. Standard deviations for two play elements, interaction and verbal communication, were also larger. These differences, again not significant, tend to concur with Smilansky's findings that girls' attainment in play was higher than the boys.

#### Findings Concerning Play Behavior and IQ

Subjects of this study with higher mean standard scores on the Goodenough Drawing Test did not play significantly better than children with lower mean standard scores. These results confirm Smilansky's (1968). She found, too, that children with higher intelligence did not necessarily attain a higher level of sociodramatic play.



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