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Socioeconomic status, parental attitudes towards motoric activity, and the development of abilities in aggressive children with learning disabilities.

Frances R. Frisch
University of Windsor

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SOCIOECONOMIC STATUS, PARENTAL ATTITUDES TOWARDS
MOTORIC ACTIVITY, AND THE DEVELOPMENT OF
ABILITIES IN AGGRESSIVE CHILDREN
WITH LEARNING DISABILITIES

by

Frances R. Frisch
B.A., University of Tennessee, 1968

A Thesis
Submitted to the Faculty of Graduate Studies through the
Department of Psychology in Partial Fulfillment
of the Requirements for the Degree of
Master of Arts at the
University of Windsor

Windsor, Ontario, Canada
1971
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Abstract

The present study was designed to investigate whether socioeconomic (S-E) class membership determines how parents view their children's motor behavior. The concern of this study was with that specific population of children who manifest aggressive behavioral problems and learning difficulties. Forty children participated in this study, twenty drawn from the lower S-E class and twenty from the middle S-E class. All forty children had been independently judged as manifesting behavior problems of an aggressive nature and academic difficulties in school. The motor behavior of each child was rated by the child's parent by means of the Motor Behavior Questionnaire. The children were then individually administered three tests of verbal ability and three tests of motor ability for the purpose of comparison of test scores within classes.

A review of relevant theoretical and empirical literature led to the formulation of three hypotheses. The first hypothesis predicted that middle S-E class parents would rate their children's motor behavior more negatively than parents of the lower S-E class. The second and third hypotheses are essentially related. The second hypothesis predicted that within the middle S-E
class, for parents who had rated their children's behavior favorably, their children would score better on tests of verbal ability than those children whose parental ratings of their behavior were unfavorable. The third hypothesis predicted that within the lower S-E class, for parents who had rated their children's behavior unfavorably, their children would score more poorly on tests of motor ability than those children whose parental ratings of their behavior were favorable. In other words, hypotheses two and three were concerned with the possible compensating effect the children's acquisition of skills valued by their parents (verbal or motor according to S-E class) might exert on parental ratings of the children's behavior.

Results indicated significant differences in the opposite direction as those predicted in the first hypothesis. This led to a questioning of the theoretical literature which asserts that the lower S-E class places value upon physical skill to a greater extent than the middle S-E class. The possibility that this is a generally accepted stereotypic notion regarding lower S-E class individuals was tentatively suggested. Alternate interpretations of these results were also discussed. No significant differences resulted from investigation of hypotheses two and three.

Statistical analysis revealed significant differences between the verbal and motor abilities of children
belonging to the middle S-E class when compared with the verbal and motor abilities of children belonging to the lower S-E class. The child from the middle S-E class appears to excel. These results are compatible with previous research.
Preface

The present work grew from the author's interest in children with behavioral and learning problems and her concern for the implications of social status in the remediation of these problems.

The author would like to express her appreciation to the members of her committee, Doctors Byron P. Rourke, Chairman, A. Arthur Smith, and John La Gaipa for their cooperation and continued interest. Dr. Rourke's effort, attention and patience is especially appreciated.

In addition, special thanks are extended to the members of the psychometric staff of the Neuropsychology Unit of I.O.D.E. Hospital, Windsor for their help in administering the psychological tests utilized in this study.

Finally, my sincere gratitude is delivered to my husband without whose encouragement to continue my education and willingness to forego home-cooked meals, this project would not have been possible.
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Chapter I

INTRODUCTION

Statement of the Problem

Many children have difficulties learning in school. Some of these children also exhibit behavior problems of an aggressive nature which may interfere with remediation of their learning difficulties. Parental attitude towards the child's aggressive acting-out behavior plays a large role in the reinforcement or punishment of such behavior. For this reason, a parent's attitude towards his child's aggressive behavior may have serious implications for remediation of the child's learning difficulties. That is, a parent's attitude towards his child's physical aggression may have to be considered and dealt with before the child's behavior can be modified.

The first purpose of this study was to investigate whether socioeconomic class membership determines how parents view their children's motor behavior. The children participating in this study were judged (1) to have academic difficulty in school and (2) to manifest a behavior problem of an aggressive nature. These judgments were made by someone other than the parent--either the child's school teacher, a school psychologist, a social worker or some combination of these. The children were drawn from both
the middle and lower socioeconomic classes. The intention was to secure some measure of each parent's views towards his child's motor behavior.

In addition, it was decided that if it was shown that parents from these different socioeconomic classes view their children's motor behavior differently, this may have implications for the pattern of learning deficits which the children exhibit. That is, a parent may be instrumental in encouraging the development of certain skills, such as motor skills, and not other skills, such as verbal skills. This may lessen the child's motivation to acquire those skills not valued by the parent. In this way, the parent's attitudes would be crucial in the remediation of those academic areas in which the child is deficient.

A secondary purpose of this study, therefore, was to determine whether a parent's unfavorable attitude towards his child's behavior is an indication of the child's failure to acquire those skills which the parent values.

Review of the Literature and Hypotheses

A review of relevant literature reveals an emphasis placed on physical prowess by the lower socioeconomic (S-E) class. Riessman (1966a) maintains that the "underprivileged individual" admires strength, endurance and ruggedness. This is reflected in his interest in sports and admiration for prize fighters and baseball
heroes. In fact, strength is likely to be viewed as a status-giving attribute and, therefore, be highly valued. Moreover, Riessman claims this individual's approach to life or style of life is characterized by a "physical" orientation. Thus, for example, he enjoys expressing his emotions physically.

In consonance with this notion of a "physical" orientation for the deprived individual, is the contention of Miller and Swanson (1960) that this individual may learn in a physical or motoric fashion. That is, he may be able to think through a problem to an adequate solution if he can work on it with his hands. If he is able to manipulate objects physically, his performance will be enhanced. Crow, Murray, and Smythe (1966) support this contention. They claim that the deprived child will give attention to anything that involves motor responses such as sports and drawing. For this reason, they suggest that the teacher of the deprived child utilize kinesthetic teaching methods whenever feasible.

Hodges (1964) observes the following in regard to members of the lower S-E class and their attitude towards physicality:

Whether concerned in the main with pre-adolescent gangs, delinquent subcultures, or unskilled production-line workers, students of lower class culture are in essential agreement that one of the most consistently recurrent themes among lower-blue collar workers
is an affection for "toughness" -- for an occasionally pugnacious, chip-on-the-shoulders assertion of rugged masculinity. The male at this level has been variously described as admiring the qualities of hunter, fighter, and dare-devil, of physical prowess and bravery ...(p. 207)

The value placed on physical prowess by the lower S-E class may be related to an orientation that is anti-intellectual (Riessman, 1966a). According to Riessman (1966a), "intellectualism" is the opposite of action-oriented activity. Cohen and Hodges (1963) have investigated the disdain for intellectualism of the lower S-E class. They have shown that an individual belonging to this class is more likely to dislike "highbrow" arts and entertainment, to admit to disappointment if he were judged "intellectual," and to feel that the federal government would be sounder if fewer intellectuals were involved in it.

The middle class value system, especially as regards children in a middle-class family, offers strong contrast to the above. "Intellectual and competitive ability in school are highly esteemed ... All manner of personal achievement is emphasized and rewarded in the hope that achievement will become a firmly fixed motive in the child (Vidich & Bensman, 1969, p. 175)." Deutsch (1967) maintains that the middle-class child is more likely to have been continuously prodded intellectually by his parents and rewarded for correct answers. Crow et al. (1966)
describe the surroundings and environment typical of the middle-class home. It is characterized by encouragement of creative and imaginative play and frequent trips to places of cultural interest such as concerts, theater, movies, museums, and educational trade shows. Such characteristics appear to reflect an interest on the part of the middle S-E class parent in the development of his child's intellect, or encouragement of the child's flexing his mental muscles as opposed to his physical muscles.

Thus, although the middle-class parent may not disdain the development of physical skill in his child, the above assertions would lead one to believe that physical skills are of lesser importance to the middle-class parent than to the parent belonging to the lower S-E class. If these assertions are the case, it would appear reasonable to infer that a child's motor activity, be it aggressive or otherwise, which may be troublesome to the middle S-E class parent may be less so for the parent belonging to the lower S-E class. Such behavior would be compatible with the latter's value system and, therefore, with his expectations of his child's behavior. This is one prediction that the present study seeks to test.

Hypothesis (1) Parents belonging to the middle S-E class whose children have been judged as manifesting aggressive behavior and difficulties in learning will view their children's motor behavior more negatively than will parents of the lower S-E class whose children have been judged as manifesting aggressive behavior and learning problems.
All children participating in this study were judged to manifest a behavior problem of an aggressive nature. In this way, control was exercised over the homogeneity of motor behavior of the group of children sampled. Each parent's attitudes towards his child's motor behavior were obtained from the 28-item Motor Behavior Questionnaire. (See Appendix A) The items in this questionnaire are divided into six sections according to the activity the child is engaged in while he is manifesting his behavior, such as during meals, while watching television, while doing homework and so forth. The items under each section ask such questions as: Does your child get up and down while at the dining table? wriggle? manipulate objects? constantly change activities? interrupt without regard? The parent rates each item under the following categories: (1) No, (2) Yes, a little bit, or (3) Yes, very much.

Should results indicate significant differences between the proportion of items checked under categories (1), (2) and (3) by parents of the middle S-E class as compared to parents of the lower S-E class, this would indicate that the questionnaire is a "disguised" measurement of a parent's attitudes towards his child's motor behavior. This would have to be the case inasmuch as the sample of children utilized in this study has been controlled for homogeneity of motor behavior via independent judgments.
A "negative" judgment of a child's motor behavior was defined as a disproportionately greater checking of the "Yes, very much" category.

It has been found that children from the lower S-E class manifest strengths and weaknesses in the skills they have acquired which differ from those of children from the middle S-E class. The deprived child suffers from a general retardation of language skills (Ausubel, 1966). This is particularly true with respect to the abstract dimension of verbal functioning. Newton (1966) describes lower S-E class students as suffering from "verbal destitution." Newton's research reveals that college students who met criteria for being judged seriously retarded readers came from the "less privileged" economic strata. Individuals from the lower S-E class have been shown to do better on performance tests of intelligence as compared to their verbal scores (Crow et al., 1966; Riessman, 1966b).

This deficiency in verbal ability may be related to the value system of the lower S-E class. Riessman (1966a) asserts that talking and reading are antithetical to the value the lower S-E class places on physical skill. Talking and reading are not action-oriented and are, therefore, not considered valuable. The lower S-E class individual is described as "suspicious of conversation."
On the other hand, the middle S-E class parent is described as one who nurtures his child's ability to communicate by making books, magazines, and newspapers available for the child to read (Crow et al., 1966).

These assertions would lead one to believe that motor skills are valued, and perhaps encouraged by the parent of the lower S-E class, while verbal skills are not valued. The middle S-E class parent, on the other hand, would be expected to value verbal ability in his child above motor skill.

If this be the case, one would expect a parent of the lower S-E class to be disconcerted with his child if the child lacked sufficient motor skills. One would also expect a parent of the middle S-E class to be disconcerted with his child if his child lacked sufficient verbal skills.

The present study seeks to determine if a child's acquisition of skills valued by his parent has a compensating effect on the manner in which the parent rates his child's behavior. That is, if a child has succeeded in acquiring those skills which the parent values, will this exert a compensating effect on those ratings of the parent on the questionnaire? If it does, the ratings of the parent should serve as an indicator of those abilities in which the child excels and those abilities in which the child falls short, depending upon the S-E status of the
parent and, therefore, those skills which the parent values.

In order to test this assertion the response categories of the questionnaire were assigned a weight as follows: "No" = 0; "Yes, a little bit" = 1; "Yes, very much" = 2. For each individual questionnaire, the number of responses in each category was tabulated. This number was then multiplied by the appropriate weight. These weighted scores were then added yielding, therefore, a total weighted score for each questionnaire. The median total weighted scores for the lower and middle S-E groups were calculated. Those scores falling above the median for the appropriate S-E class comprise "unfavorable" or high ratings. Those scores falling below the median comprise "favorable" or low ratings.

By definition, half of the parents in each S-E group rated their children "unfavorably." This study seeks to determine if this is because the children have failed to conform to their parents' expectations, i.e. the children are not sufficiently proficient in motor ability. Conversely, of those parents belonging to the middle S-E class, half rated their children "favorably." This study seeks to determine if this is because the children have successfully conformed to their parents' expectations, i.e. the children have mastered a sufficient degree of verbal skill. In order to test these predictions, each child will be administered
various tests of his motor and verbal ability. Comparisons of these test results will be made.

The above led to the formulation of the following hypotheses:

Hypothesis (2) Within the middle S-E class group, for those parents with favorable (low) ratings of their children's behavior, their children's test results will indicate:

(a) higher verbal ability than the verbal ability of those children with unfavorable (high) ratings.

(b) no difference in motor ability from those children with unfavorable (high) ratings.

Hypothesis (3) Within the lower S-E class group, for those parents with unfavorable (high) ratings of their children's behavior, their children's test results will indicate:

(a) lower motor ability than the motor ability of those children with favorable (low) ratings.

(b) no difference in verbal ability from those children with favorable (low) ratings.
Chapter II

METHOD

Subjects

Forty children were used in this study. They were drawn from referrals to the Neuropsychology Unit of I.O. D.E. Hospital in Windsor, Ontario. To control for as homogeneous a group of children as possible, only those children who met the following criteria were considered acceptable for the purposes of this study: (1) All the children were independently judged as manifesting a behavior problem of an aggressive nature; (2) All the children were independently judged as having academic difficulty in school; (3) All were male. The necessary independent judgments were made by someone other than the parent—either the child's school teacher, a school psychologist, a social worker or some combination of these. The judgments regarding a child's aggressive behavior were secured from one or more of the following: a teacher's "school report," a school psychologist's report and/or a social history as reported by a social worker. In order to be considered acceptable, these reports had to indicate an aggressive problem of a physical nature. In other words, manifestation of aggressive behavior was specified, for the purposes of this study, as
physical action carried out in a forceful and destructive manner directed against the persons or properties of others. Thus, for example, the social history of a child might indicate that the child has been found "unmanageable" at home or in school because of frequent physical acting-out directed against classmates or siblings. Or, the report of a school psychologist might indicate similar problems as stated under "Behavioral Observations" or "Impressions." The "school report" mentioned above is a form containing a number of questions requested by I.O.D.E. Hospital from the child's teacher after referral of the child has been made to the hospital. Three questions asked of the teacher on this form were of particular relevance:

1. What is the child's general attitude and behavior in class?
2. How does the child get along with other children?
3. How does the child react emotionally to everyday problem situations?

An example of a statement made by a teacher which would indicate an aggressive problem is: "Carelessness and aggressiveness in the yard often results in some child being injured."

In addition, these children were selected on the basis of S-E class. The intention was to secure 20 children belonging to the lower S-E class and 20 belonging to the
middle S-E class. S-E status was determined by means of the father's reported occupation. The Duncan Socioeconomic Scale was utilized in order to secure an index of S-E status. This scale enables one to affix an index of S-E status to several occupations, the indices ranging from a theoretical low of 0 to a theoretical high of 100. (For full explication of this scale, see below).

Of the approximately 1,030 available referrals to the Neuropsychology Unit, 63 met the three control criteria. The S-E indices for the parents of these referred children ranged from 9 through 87. In order to equalize the numbers in the two sample groups (middle and lower S-E class), those parents whose S-E indices fell within the lowest 20 were assigned to the lower S-E class group. Similarly, those parents whose S-E indices fell within the highest 20 were assigned to the middle S-E class group. This resulted in a range of S-E indices for the low S-E class group of 9 through 16, and a range for the middle S-E class group of 40 through 87. Thus, a 24 point separation between classes was effected with the consequent assurance that the parents and their children in these two groups were, in fact, being drawn from discrepant S-E classes.

The above procedure resulted in some discrepancy between the age levels of the children in each S-E group. The mean age of the children in the lower S-E group was
10 years 10 months. The mean age of children in the middle S-E group was 9 years 10 months. It was not possible to equalize age levels further and, at the same time, maintain a distinction between the S-E classes from which the children were drawn. Of interest is the possibility that this age discrepancy may signify that it takes longer for a child of the lower S-E class to be referred to community facilities for professional help.

Because comparisons of the children's motor and verbal abilities were being made, there was some concern over taking into account the general intelligence level of the children participating in the study so as to avoid spurious results. Hypotheses (2) and (3) specify that the concern of this study lies with comparisons of children's motor and verbal abilities within the two class levels. That is, comparisons were to be made, first, between those children rated favorably and those rated unfavorably within the middle S-E class and, second, between those children rated favorably and those rated unfavorably within the lower S-E class. Scrutiny of the levels of general intelligence of these groups indicated lack of significant differences of mean intelligence between the appropriate groups. Table 1 indicates mean Full Scale IQ (FSIQ) scores on the Wechsler Intelligence Scale for Children (WISC) for the 10 children in each of these groups. For the sake of clarity, these groups will henceforth be labeled
Group 1, 2, 3 and 4 as per Table 1. There were no significant differences between mean FSIQ of Group 1 and Group 2 and between Group 3 and Group 4.

Table 1
MEAN WISC FSIQ FOR THE MIDDLE AND LOWER S-E CLASS GROUPS

<table>
<thead>
<tr>
<th>Middle S-E Class</th>
<th>Rating</th>
<th>Mean FSIQ</th>
</tr>
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<tbody>
<tr>
<td>Group 1 (n = 10)</td>
<td>Unfavorable</td>
<td>103.9</td>
</tr>
<tr>
<td>Group 2 (n = 10)</td>
<td>Favorable</td>
<td>101.7</td>
</tr>
</tbody>
</table>

Lower S-E Class

<table>
<thead>
<tr>
<th>Group</th>
<th>Rating</th>
<th>Mean FSIQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 3 (n = 10)</td>
<td>Unfavorable</td>
<td>91.5</td>
</tr>
<tr>
<td>Group 4 (n = 10)</td>
<td>Favorable</td>
<td>88.6</td>
</tr>
</tbody>
</table>
Motor Behavior Questionnaire

This instrument is in current use in the Neuropsychology Unit of I.O.D.E. Hospital. There are no available data on its standardization. It was originally developed for the purpose of determining the degree of hyperactivity which a child manifests. However, it would appear that this purpose is confounded by parental attitude or, in other words, the subjective judgment of the parent which, in turn, is affected by his value system. The present study will help determine if this questionnaire is, in fact, confounded by parental attitude. That is, the present study will help determine the extent of content validity inherent in this questionnaire. Were the questionnaire answered objectively, it would provide information on what the hyperactive child does or how he behaves. To the extent that the questionnaire is answered in terms of attitudes toward hyperactivity rather than degree of hyperactivity per se, the content validity is confounded. Because the sample of children participating in this study has been controlled for homogeneity of motor behavior via independent judgments, results indicating differences of parental ratings between lower and middle S-E class groups have implications for the content validity of this questionnaire.

One or both parents of each child participating in the study was asked to complete this questionnaire. As
aforementioned, the 28 items in the questionnaire are divided into six sections according to the activity the child is engaged in while he is manifesting his behavior, such as during meals, while watching television, while doing homework and so forth. The items under each section ask such questions as: Does your child get up and down while at the dining table? wriggle? manipulate objects? interrupt without regard? The parent rates each item under the following categories: (1) No, (2) Yes, a little bit or (3) Yes, very much (See Appendix A).

Duncan Socioeconomic Scale

The Duncan Socioeconomic Scale was utilized to discriminate S-E status of the parents participating in the study. This scale, largely credited to Otis Dudley Duncan and published by Reiss (1961) in the latter's lengthy monograph, draws heavily from the North-Hatt Scale. The North-Hatt Scale was developed by C. C. North and Paul Hatt from data gathered by the National Opinion Research Center (NORC) and is based upon ratings of relative prestige for ninety occupations.

In 1946, approximately 3,000 adults, a cross section of the American population, rated the general standing of each occupation on a five-point scale: excellent, good, average, below average, and poor. North and Hatt then converted the ratings into a scoring system in which the occupation with the highest prestige received a maximum score of 100 (Roach, Gross, and Gursslin, 1969, p. 128).
However, the NORC occupational prestige scores, although widely used since their publication in 1947, had serious drawbacks. The NORC scores were available for occupations encompassing less than half the labor force. Duncan sought to remedy this situation by assigning a Socioeconomic Index (between 1 and 100) for all occupations listed in the 1950 Bureau of the Census. He also sought to correct for any biases in the original NORC sampling. Lastly, Duncan's scale combined available information on educational and income levels of persons engaged in the several occupations.

Few take issue with the view that occupation is one of the most important indices of social class and that occupational measures, therefore, can be treated as shorthand appraisals of much that is encompassed by the concept of class (Roach et al., 1969, p. 130).

For this reason, and because the Duncan scale is a convenient yet extensive and thorough means of utilizing occupation to determine social stratification, occupation was chosen for the purposes of this study as the basis for differentiating S-E status.

**Procedure**

All parents participating in the study were asked to report the head of household's (in all cases the natural father) occupation and to complete the Motor Behavior Questionnaire with regard to their children's motor behavior. An index was secured in terms of the Duncan Socioeconomic Scale for each parent to determine
his S-E status. Each parent was then assigned to either the middle or lower S-E class group depending upon the index associated with his occupation. There were 20 parents in each group.

The children of these parents were then individually administered the following tests of their verbal and motor ability:\footnote{Most of the test descriptions discussed here are identical to those found in Ridgley (1970).}

**TESTS OF VERBAL ABILITY**

1. **WIDE RANGE ACHIEVEMENT TEST (WRAT): READING SUBTEST**
   Standardized test of oral word reading achievement. Score: standard score based on total number of words correctly read aloud. Task Requirement: association of printed letters with spoken word. Stimulus: printed word. Response: spoken word.

2. **SPEECH PERCEPTION TEST**
   Thirty tape-recorded monosyllabic nonsense words. Each word has a middle "ee" sound and must be identified by means of a choice among three printed syllables. Score: number correct. Task Requirement: match the spoken syllable with a printed syllable. Stimulus: spoken syllable and three printed syllables, one of which matches the spoken syllable. Response: underline printed syllable chosen.

3. **WECHSLER INTELLIGENCE SCALE FOR CHILDREN (WISC): VERBAL IQ**
   Composite score derived from total weighted scores of the six Verbal subtests whose descriptions follow.


   **COMPREHENSION:** Fourteen questions. Assesses the ability to evaluate certain situations. Score: number of items correct. Task Requirement: evaluation of

ARITHMETICAL REASONING: Ten arithmetic problems of increasing difficulty. Score: number of problems correctly solved, with time credit. Task Requirement: arithmetic reasoning. Stimulus: spoken (first eight items) or printed (last two items) question. Response: spoken answer.


TESTS OF MOTOR ABILITY

1. GROOVED PEGBOARD TEST
This test measures fine motor steadiness. The subject is asked to fit keyhole-shaped metal pegs into five rows of matching holes in a board. He does this as quickly as possible. The time in seconds was recorded with use of dominant hand only for purposes of this study. Number of times subject dropped a peg were not counted as these were minimal, usually only once or twice. Children eight years and under are given only the first two rows.

2. TAPPING SPEED, PREFERRED HAND
The subject taps a mechanical counter as rapidly as possible with the index finger on four trials of ten seconds each. Score: mean taps per ten seconds. Task Requirement: achievement of maximum speed. Stimulus: instruction to tap as rapidly as possible. Response: rapid repetitive movement.
3. **WECHSLER INTELLIGENCE SCALE FOR CHILDREN (WISC)**  
**PERFORMANCE IQ**  
Composite score derived from total weighted scores of the five Performance subtests whose descriptions follow. Indicative of overall nonverbal functioning.

**PICTURE COMPLETION:** Twenty pictures of familiar objects, each with a part missing. The missing part is identified in simple line drawings. Score: number of missing parts correctly identified. Task Requirement: location of missing part on the basis of memory of the whole object. Stimulus: picture. Response: spoken name of missing part.


**OBJECT ASSEMBLY:** Four formboards. Parts of each formboard are to be arranged to form a picture. Score: total score for speed and accuracy of assembly. Task Requirement: spatial arrangement of parts to form a meaningful whole. Stimulus: disarranged parts of picture. Response: complex manipulation and arrangement of parts.

**CODING:** (For ages eight through fifteen) Ninety-three digits preceded by a code which relates digits to symbols. Symbols are to be written below digits as rapidly as possible. Score: number of symbols correctly written within a fixed time. Task Requirement: association of digits and symbols by direct visual identification or by short-term memorization. Stimulus: printed digits and symbols. Response: rapid co-ordination of visual identification with a complex writing response.

(For ages five through seven) Forty-five geometric shapes preceded by a code which relates shapes to symbols. Symbols are written within shapes as rapidly as possible. Score, Task Requirement, Stimulus, Response: similar to above.

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Chapter III
RESULTS

Hypothesis (1)

For each of the 20 parents in the lower S-E class group, his responses on the Motor Behavior Questionnaire were tabulated indicating how many of the 28 items were answered (1) No, (2) Yes, a little bit and (3) Yes, very much. Total number of responses in these three categories were then secured for the lower S-E class group by adding the number of responses in each category in each questionnaire. Similarly, the totals in each category for all questionnaires of the middle S-E class group were secured.

The results of parents' responses to the Motor Behavior Questionnaire were analyzed by means of a 2 X 3 Chi Square design indicating the frequencies of responses in the three categories for the lower S-E class group and middle S-E class group, respectively. Table 2 indicates these frequencies as well as the Chi Square statistic for the resulting distribution of responses.
Table 2

FREQUENCY OF RESPONSES IN THE THREE CATEGORIES OF THE MOTOR BEHAVIOR QUESTIONNAIRE FOR PARENTS IN THE MIDDLE AND LOWER S-E CLASSES

<table>
<thead>
<tr>
<th></th>
<th>(1) No</th>
<th>(2) Yes, a little</th>
<th>(3) Yes, very much</th>
<th>Σ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle S-E class</td>
<td>193</td>
<td>222</td>
<td>143</td>
<td>556</td>
</tr>
<tr>
<td>Lower S-E class</td>
<td>186</td>
<td>156</td>
<td>224</td>
<td>566</td>
</tr>
<tr>
<td>Σ</td>
<td>379</td>
<td>378</td>
<td>367</td>
<td>1124</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 29.48 \ (p < .001, \ d.f.: 2) \]
As shown in Table 2, the Chi Square comparing the responses of the lower and middle S-E groups was significant at the .001 level. This indicates results in the opposite direction as that predicted in Hypothesis (1).

Hypotheses (2) and (3)

As aforementioned, for each of the 20 parents in the lower S-E class group, his responses on the Motor Behavior Questionnaire were tabulated indicating how many of the 28 items were answered (1) No, (2) Yes, a little bit and (3) Yes, very much. Category (1) was then assigned a weight of 0, category (2) assigned a weight of 1, and category (3) assigned a weight of 2. The number of responses falling into each of the three categories was then multiplied by the appropriate weight. This procedure was utilized for each questionnaire individually. The weighted scores of each of the three categories (for each individual questionnaire) were then added. For each questionnaire, therefore, a total weighted score was secured. Thus, there was a possible low total weighted score of 0 (all 28 items answered "No": 28 X 0 = 0) and a possible high total weighted score of 56 (all 28 items answered "Yes, very much": 28 X 2 = 56). The median total weighted score for the lower S-E class group was then obtained. This median was 30.0. All scores falling below 30.0 were operationally defined as low or favorable.
All scores falling above the median were defined as high or unfavorable.

Precisely the same procedure was utilized for each of the 20 questionnaires filled out by parents of the middle S-E class. The median total weighted score for this group of parents was 26.5. Thus, four groups were secured as follows:

Group 1 - Middle S-E status; Unfavorable ratings of children's behavior
Group 2 - Middle S-E status; Favorable ratings of children's behavior
Group 3 - Lower S-E status; Unfavorable ratings of children's behavior
Group 4 - Lower S-E status; Favorable ratings of children's behavior.

Comparisons of motor and verbal abilities of the children participating in this study were made between Group 1 and Group 2 and between Group 3 and Group 4.

Next, for all children, their scores on the three tests of verbal ability and three tests of motor ability were transformed into T scores with a mean of 50 and a standard deviation of 10. That is, each of the six tests was separately standardized on all 40 subjects. The T scores for each child on the three verbal tests were then added and a mean T score of verbal ability was secured for each
child. Likewise, the $T$ scores for each child on the three motor tests were added and a mean $T$ score of motor ability was secured for each child. In all cases, of course, the mean was 50 and standard deviation was 10.

Table 3 indicates these mean $T$ scores of verbal and motor ability for all 40 children according to membership in Group 1, 2, 3, or 4 as specified above.
<table>
<thead>
<tr>
<th>Mean Verbal T Score</th>
<th>Mean Motor T Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>48.66</td>
<td>57.33</td>
</tr>
<tr>
<td>56.81</td>
<td>47.07</td>
</tr>
<tr>
<td>60.43</td>
<td>55.86</td>
</tr>
<tr>
<td>59.07</td>
<td>53.56</td>
</tr>
<tr>
<td>51.27</td>
<td>49.64</td>
</tr>
<tr>
<td>69.55</td>
<td>52.96</td>
</tr>
<tr>
<td>63.86</td>
<td>53.76</td>
</tr>
<tr>
<td>54.37</td>
<td>56.74</td>
</tr>
<tr>
<td>35.34</td>
<td>47.51</td>
</tr>
<tr>
<td>41.07</td>
<td>39.45</td>
</tr>
</tbody>
</table>

Middle S-E Class

Unfavorable Rating: Group 1

<table>
<thead>
<tr>
<th>Mean Verbal T Score</th>
<th>Mean Motor T Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>52.64</td>
<td>57.92</td>
</tr>
<tr>
<td>56.54</td>
<td>51.69</td>
</tr>
<tr>
<td>62.95</td>
<td>52.81</td>
</tr>
<tr>
<td>46.44</td>
<td>43.37</td>
</tr>
<tr>
<td>49.03</td>
<td>55.89</td>
</tr>
<tr>
<td>55.34</td>
<td>61.55</td>
</tr>
<tr>
<td>46.12</td>
<td>41.71</td>
</tr>
<tr>
<td>45.73</td>
<td>52.86</td>
</tr>
<tr>
<td>57.68</td>
<td>57.72</td>
</tr>
<tr>
<td>51.22</td>
<td>50.11</td>
</tr>
</tbody>
</table>

Favorable Rating: Group 2
Table 3 Continued

<table>
<thead>
<tr>
<th>Lower S-E Class</th>
<th>Unfavorable Rating: Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Verbal T Score</td>
</tr>
<tr>
<td>43.35</td>
<td>42.99</td>
</tr>
<tr>
<td>41.02</td>
<td>35.33</td>
</tr>
<tr>
<td>48.67</td>
<td>48.71</td>
</tr>
<tr>
<td>54.05</td>
<td>52.85</td>
</tr>
<tr>
<td>49.88</td>
<td>49.21</td>
</tr>
<tr>
<td>50.66</td>
<td>60.41</td>
</tr>
<tr>
<td>44.40</td>
<td>51.95</td>
</tr>
<tr>
<td>45.14</td>
<td>51.90</td>
</tr>
<tr>
<td>63.96</td>
<td>56.19</td>
</tr>
<tr>
<td>46.04</td>
<td>49.07</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Favorable Rating: Group 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Verbal T Score</td>
</tr>
<tr>
<td>46.88</td>
</tr>
<tr>
<td>44.11</td>
</tr>
<tr>
<td>54.06</td>
</tr>
<tr>
<td>36.13</td>
</tr>
<tr>
<td>45.12</td>
</tr>
<tr>
<td>37.88</td>
</tr>
<tr>
<td>35.53</td>
</tr>
<tr>
<td>40.79</td>
</tr>
<tr>
<td>54.23</td>
</tr>
<tr>
<td>48.80</td>
</tr>
</tbody>
</table>
A three factor (2 X 2 X 2) analysis of variance with repeated measures (Winer, 1962) was performed on the data in Table 3. The variables under analysis were ratings on the Motor Behavior Questionnaire (Factor A), Verbal and Motor test scores (Factor B) and S-E class (Factor C). Replications occurred on Factor B. The results of this analysis are shown in Table 4.

Table 4

THREE FACTOR ANALYSIS OF VARIANCE ON MOTOR BEHAVIOR QUESTIONNAIRE RATINGS (A), VERBAL AND MOTOR TEST SCORES (B), AND S-E CLASS (C)

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between S's</td>
<td>3282.60</td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (Ratings)</td>
<td>70.93</td>
<td>1</td>
<td>70.93</td>
<td>0.97</td>
</tr>
<tr>
<td>C (Class)</td>
<td>512.12</td>
<td>1</td>
<td>512.12</td>
<td>6.97*</td>
</tr>
<tr>
<td>A X C</td>
<td>53.38</td>
<td>1</td>
<td>53.38</td>
<td>0.73</td>
</tr>
<tr>
<td>Error (between)</td>
<td>2646.16</td>
<td>36</td>
<td>73.50</td>
<td></td>
</tr>
<tr>
<td>Within S's</td>
<td>1035.17</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B (Verbal/Motor Test Scores)</td>
<td>2.89</td>
<td>1</td>
<td>2.89</td>
<td>0.11</td>
</tr>
<tr>
<td>A X B</td>
<td>25.80</td>
<td>1</td>
<td>25.80</td>
<td>0.98</td>
</tr>
<tr>
<td>B X C</td>
<td>51.89</td>
<td>1</td>
<td>51.89</td>
<td>1.96</td>
</tr>
<tr>
<td>A X B X C</td>
<td>1.67</td>
<td>1</td>
<td>1.67</td>
<td>0.06</td>
</tr>
<tr>
<td>Error (within)</td>
<td>952.92</td>
<td>36</td>
<td>26.47</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4317.77</td>
<td>79</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05
As shown in Table 4, there was no significant interaction between Motor Behavior Questionnaire ratings (A) and Verbal/Motor test scores (B). This indicates no significant results relevant to Hypotheses (2) and (3). A significant main effect was found on the S-E class variable (C) at the .05 level. This indicates that the children of the middle S-E class have higher Verbal/Motor test scores. No other significant main effects or interactions were found.

Table 5 indicates mean verbal and motor scores for Groups 1, 2, 3 and 4, i.e. for the middle S-E class children rated unfavorably and favorably and for the lower S-E class children rated unfavorably and favorably. Comparisons were made between the verbal and motor scores for Group 1 and Group 2 and between the verbal and motor scores for Group 3 and Group 4. Results of these Student's T tests are indicated in Table 5.
<table>
<thead>
<tr>
<th></th>
<th>Group 1: Mean Verbal Score</th>
<th>Group 2: Mean Verbal Score</th>
<th>d.f.</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Middle S-E Class</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1: (Unfavorable Rating)</td>
<td>54.04</td>
<td>52.37</td>
<td>18</td>
<td>0.45</td>
</tr>
<tr>
<td>Group 2: (Favorable Rating)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lower S-E Class</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 3: (Unfavorable Rating)</td>
<td>48.72</td>
<td>44.35</td>
<td>18</td>
<td>1.44**</td>
</tr>
<tr>
<td>Group 4: (Favorable Rating)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Motor Scores</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1: Mean Motor Score</td>
<td>51.39</td>
<td>52.56</td>
<td>18</td>
<td>0.43</td>
</tr>
<tr>
<td>Group 2: Mean Motor Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .50

**p < .20
As indicated in Table 5, differences between verbal and motor abilities of the children in Groups 1 and 2 were not significant. Differences between the verbal abilities of the children in Groups 3 and 4 were significant at the .20 level. Differences between the motor abilities of the children in Groups 3 and 4 were significant at the .50 level. This latter reported difference is in the opposite direction as that predicted in Hypothesis (3).

Figure 1 depicts graphically the group means shown in Table 5. That is, means for Groups 1 and 2 (middle S-E class; unfavorable and favorable ratings, respectively) and Groups 3 and 4 (lower S-E class; unfavorable and favorable ratings, respectively) on the verbal and motor tests are illustrated in Figure 1.
Figure 1. Results of Verbal and Motor Tests for Groups Rated Favorably and Unfavorably Within the Middle and Lower S-E Classes expressed in terms of Group Mean T Scores with Mean of 50 and Standard Deviation of 10.
Figure 1 clearly depicts the significant results found on the class variable (Factor C) in the analysis of variance. That is, differences in both verbal and motor abilities between the lower and middle S-E class children is evident. Figure 1 also clearly shows the lack of significant differences of verbal and motor abilities between Groups 1 and 2 and between Groups 3 and 4.
Chapter IV
DISCUSSION

Hypothesis (1)

This hypothesis predicted that parents belonging to the middle S-E class whose children had been judged as manifesting aggressive behavior and difficulties in learning would view their children's motor behavior more negatively than would parents of the lower S-E class.

The problem as to whether the questionnaire used in this study actually reflected a parent's attitude or, instead, reflected a description of the child's actual behavior was discussed in Chapter II. Since the behavioral variable for all forty children was controlled via independent judgments, it was asserted that any differences between parental class groups must then be accounted for by differences in parental attitude. Because these differences between parental class groups were found to exist, it can be stated with reasonable assurance that the Motor Behavior Questionnaire reflects parental attitude.

The Chi Square analysis performed on parental responses of the Motor Behavior Questionnaire indicate results of compelling statistical significance in the opposite direction of those predicted. It was discovered that parents belonging to the lower S-E class judged their
children's motor behavior more negatively than parents belonging to the middle S-E class. In other words, parents of the low S-E class tended to answer the 28 questionnaire items "Yes, very much" rather than "Yes, a little." The reverse is true for parents of the middle S-E class.

These results are amenable to various interpretations. One interpretation involves the heretofore accepted value system of the lower S-E class regarding physical skill. One may conclude on the basis of the theoretical literature reviewed in Chapter I that physical skills are of lesser importance to the middle-class parent than to the parent belonging to the lower S-E class. If this were the case, why would parents belonging to the lower S-E class rate their children's motor problems more negatively than parents of the middle S-E class? Perhaps the supposed value the lower S-E class member places on physicality is no more than a stereotypic notion which has been generally accepted on the basis of prima facie evidence. Or perhaps our North American society is in a stage of transition regarding views towards physicality. The clothes middle-class individuals wear, the amount of "body" it is acceptable to display, and the increased middle-class interest in jogging, yoga and "body awareness" may indicate that the traditional middle-class puritanic view of physicality is on the wane. However,
of course, none of these assertions can be stated definitively on the sole basis of the present study.

It seems equally viable to explain the results of this study in another, somewhat contradictory, manner. Perhaps the responses of the lower S-E class parents to the questionnaire indicate a greater sensitivity of such a parent to over-active, inefficient motor behavior of their children. Such sensitivity might result from a greater concern of the lower S-E class parent regarding his child's motor behavior. This interpretation would, of course, be compatible with previously accepted notions regarding lower S-E class values.

In addition, it would seem worthwhile to note the specific behaviors with which the questionnaire is concerned. The questionnaire is concerned with excessive motor behavior as opposed to physical skill per se. Thus, a parent might not rate his child "negatively" regarding the child's hyperactivity and, even so, be gravely concerned if his child did not manifest skill in physical activities such as sports.

The results of this study, therefore, do not allow for any conclusive interpretations. Nonetheless, knowledge of these results would appear worthwhile if only for their heuristic value.
Hypothesis (2)

This hypothesis made predictions regarding those children within the middle S-E class. It was hypothesized that children in this class who received low or favorable ratings on the questionnaire would (a) score well on tests of verbal ability, and (b) score no differently on tests of motor ability compared to children in this class who received high or unfavorable ratings. No significant differences between the verbal abilities of these two groups of children nor between the motor abilities of these two groups of children were found.

The lack of significant differences between these groups allows one to assert the following: It appears that the attitude of a middle S-E class parent towards the motor behavior of his child (who manifests learning and behavioral difficulties) is not an indicator of the verbal skills the child has acquired. These results have two possible implications. First, they may indicate that the acquisition of verbal skill by a middle S-E class child does not exert a compensating effect on his parent's view toward his behavior. Second, and more broadly, they may indicate that there is no reason to suppose that acquisition of verbal skill is significantly important to the middle S-E class parent. Such conclusions cannot be stated definitively on the basis of this study. However,
these results appear to point toward these possible conclusions and therefore may have implications for future research.

Hypothesis (3)

This hypothesis made predictions regarding those children within the lower S-E class. It was hypothesized that children in this class who received high or unfavorable ratings on the questionnaire would (a) score poorly on tests of motor ability, and (b) score no differently on tests of verbal ability comparative to children in this class who received low or favorable ratings. No significant differences at the .05 level of confidence or greater between the motor abilities of these two groups of children nor between the verbal abilities of these two groups of children were found.

The lack of significant differences between these groups allows one to assert the following: It appears that the attitude of a lower S-E class parent towards the motor behavior of his child (who manifests learning and behavioral difficulties) is not an indicator of the motor skills the child has acquired. Again, these results have two possible implications. First, they may indicate that the acquisition of motor skill by a lower S-E class child does not exert a compensating effect on his parent's view towards his motor behavior. Or, more broadly, these results may indicate that there is no reason to suppose that acquisition of motor skill is significantly important.
to the lower S-E class parent. This interpretation is in consonance with the direction of the difference in motor ability between these two groups of children as shown by the Student's $T$ tests. This difference is in the opposite direction as that predicted. That is, children rated unfavorably appear to do better, although only at the .50 level, on tests of motor ability than those children rated favorably. It would appear then that some other variable (if any) is exerting a compensating influence on those parents who rate their children's motor behavior favorably. A more likely interpretation of these results is that these differences are due only to chance.

In any event, results for this hypothesis are compatible with those results discussed under Hypothesis (1). That is, the lower S-E class parent may not place as much value upon excellence of physical or motor ability as the theoretical literature would have one believe. Again, these conclusions cannot be definitive on the sole basis of the present study.

Additional Significant Results

Results of the analysis of variance indicate significant differences between the verbal and motor abilities of children from the lower S-E class as compared with the verbal and motor abilities of children from the
middle S-E class. The child from the lower S-E class appears to score more poorly in all cases. These results are in line with previous research. This research (Haggard, 1954; Fifer, 1964) indicates that children from the lower S-E class tend to score poorly on tests of intelligence, verbal ability, numerical reasoning and so forth compared to children in the middle S-E class due to variables such as motivation, practice effect and cultural bias of tests. To the extent that these variables are present with regard to the tests utilized in this study, the significant results herein reported are to be expected.

Implications for the Clinical Use of the Motor Behavior Questionnaire

The Motor Behavior Questionnaire is currently used in the Neuropsychology Unit of the I.O.D.E. Hospital, Windsor, Ontario. Results of the present study appear to have implications for its current or future use for the purpose of obtaining some measure of a child's hyperactivity as per a parent's rating. In order to accurately assess the results of this questionnaire, it would appear wise for the clinician to have knowledge of the parent's S-E status. The results of this study indicate that a parent from the lower S-E class will be almost twice as likely to use the "Yes, very much" response category rather than the "Yes, a little bit" category as compared to the middle-class parent. In other words, if this questionnaire is used for the purpose
of determining an accurate picture of a child's motor behavior and if it is filled out by the child's parent, its content validity is questionable. However, it is possible to improve its content validity by adjusting results according to the parents' S-E status.

Implications for Remediation of Learning Deficits

Results of the present study appear to indicate that, contrary to popular thought, the parent belonging to the lower S-E class may not place as much value upon excellence of physical or motor ability as previous literature would have one believe. As aforementioned, such a sweeping statement cannot be made solely on the basis of this study since the population participating in this study is quite specific (i.e. parents of children with learning problems and aggressive, acting-out difficulties). In addition, as stated before, the questionnaire is comprised of items concerned with degree of motor behavior as opposed to physical skill per se. However, results of this study appear to point very generally towards the above conclusion. If this is the case, the lower S-E class parent would not differentially reinforce excellence in physical or motor ability as opposed to excellence in verbal or language ability. Educational remediation of a child's learning difficulties, be they verbal or motor, could be effected without
needless concern as to whether the child's parents would "undo" at home that which the teacher attempts to do in class.

**Recommendations for Future Research**

There are a number of possible alterations of, and additions to, the present study which would facilitate securing more conclusive and inclusive results.

First, inclusion of a group of normal children in future research of this type would allow one to draw conclusions for a broader population. The population of children used in the present study were selected because they manifested specific difficulties (i.e. learning problems and aggressive behavior problems). Therefore, the specificity of hypotheses regarding the effect of class membership on parents' ratings of their children's motor behavior had to be restricted to that population of parents who have children with these specific behavioral and learning difficulties. A sample of normal children would allow one to hypothesize regarding the effects of class membership on parents' attitudes toward their children's motor behavior with respect to all parents of normal children.

The design of future studies in this area could be made superior to the design used herein with the improvement of one of the control criteria utilized in
this investigation. Inclusion of a measure of magnitude of aggressive behavior upon which the two classes (lower and middle S-E) of children could be matched, would facilitate superior control of this variable. Such a measure was not available for use in this investigation. Therefore, independent judgments of each child's aggressive behavior had to suffice. These judgments had serious limitations. They may have been confounded by the judges' knowledge of the children's S-E status. That is, it might have taken less aggressive acting-out on the part of a middle S-E class child to have been judged "aggressive" than for the lower S-E class child. Inclusion of a measure of magnitude of aggressive behavior would eradicate the possibility of this occurring.

Finally, future researchers in this general area may want to investigate in a more refined manner the accuracy of the heretofore accepted values of the middle and lower S-E class. More specifically, it may be worthwhile to explore the value the lower S-E class places on physical and motor skills.
Chapter V
SUMMARY AND CONCLUSIONS

The present study was designed to investigate whether socioeconomic (S-E) class membership determines how parents view their children's motor behavior. The concern of this study was with that specific population of children who manifest aggressive behavioral problems and learning difficulties. A review of relevant theoretical and empirical literature led to the forwarding of three hypotheses.

The first hypothesis predicted that middle S-E class parents would view their children's motor behavior more negatively than would lower S-E class parents. The second and third hypotheses are essentially related. The second hypothesis predicted that within the middle S-E class, for parents who had rated their children's behavior favorably, their children would score better on tests of verbal ability than those children whose parental ratings of their behavior were unfavorable. The third hypothesis predicted that within the lower S-E class, for parents who had rated their children's behavior unfavorably, their children would score more poorly on tests of motor ability than those children

45
whose parental ratings of their behavior were favorable. In other words, hypotheses two and three were concerned with the possible compensating effect that a child's acquisition of skills valued by his parents might exert on parental ratings of his behavior.

Results indicated significant differences in the opposite direction as those predicted in the first hypothesis. This led to a questioning of the theoretical literature which asserts that the lower S-E class places value upon physical skill to a greater extent than the middle S-E class. The possibility that this is a generally accepted stereotypic notion regarding lower S-E class values was tentatively suggested. Alternate interpretations of these results were also discussed. No significant differences resulted from investigation of hypotheses two and three.

The author discussed the implications of the present study for the clinical use of the Motor Behavior Questionnaire. It was recommended that if this instrument is used clinically for the purpose of assessing the extent of a child's hyperactivity, it would be wise if the clinician has knowledge of the S-E status of the parent responding. A parent from the lower S-E class is almost twice as likely to rate his child's motor behavior more severely than a parent from the middle S-E class. Of
course, these implications must be tempered by the consideration that the population of children used in this study is highly specific; all children participating in this study manifest learning and behavioral difficulties.

Finally, the author discussed recommendations for future research in this area.
REFERENCES


Riessman, F. The culture of the underprivileged: A new look. In S. W. Webster (Ed.), The disadvantaged learner: Knowing, understanding, educating. San Francisco: Chandler, 1966. (a)

Riessman, F. The slow gifted child. In S. W. Webster (Ed.), The disadvantaged learner: Knowing, understanding, educating. San Francisco: Chandler, 1966. (b)


## MOTOR BEHAVIOR QUESTIONNAIRE

**PLEASE ANSWER ALL QUESTIONS**

<table>
<thead>
<tr>
<th></th>
<th>Yes-A</th>
<th>Yes-M</th>
<th>Yes-V</th>
<th>No</th>
<th>Bit</th>
<th>Much</th>
</tr>
</thead>
</table>

### A. During Meals
1. Up and down at table
2. Interrupts without regard
3. Wriggling
4. Fiddles with things
5. Talks excessively

### B. Television
6. Gets up and down during program
7. Wriggles
8. Manipulates objects or body
9. Talks incessantly
10. Interrupts

### C. Doing Home-Work
11. Gets up and down
12. Wriggles
13. Manipulates objects or body
14. Talks incessantly
15. Requires adult supervision or attendance

### D. Play
16. Is unable to play
17. Inability for quiet play
18. Constantly changing activity
19. Seeks parental attention
20. Talks excessively
21. Disrupts other's play

### E. Sleep
22. Has difficulty settling down for sleep
23. Inadequate amount of sleep
24. Is restless during sleep

### F. Behavior Away From Home (Except School)
25. Is restless during travel
<table>
<thead>
<tr>
<th></th>
<th>26. Is restless during shopping (includes touching everything)</th>
<th>27. Is restless during church, movies</th>
<th>28. Is restless during visiting friends, relatives, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes–A</td>
<td>Yes–Very</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Little</td>
<td>Very</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Little</td>
<td>Much</td>
</tr>
</tbody>
</table>

Vita Auctoris

1947 - Born in Brooklyn, New York to Edith and Donald L. Reid.


1964-67 - Attended Brooklyn College of the City University of New York.

1968 - Graduated with the degree of B.A., University of Tennessee, Knoxville, Tennessee.

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