SOCIO-ECONOMIC STATUS AND FUNCTIONING IN SCHOOL: A SYMBOLIC INTERACTIONIST INTERPRETATION

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ABSTRACT

SOCIO-ECONOMIC STATUS AND FUNCTIONING IN SCHOOL:
A SYMBOLIC INTERACTIONIST INTERPRETATION

By Richard Johnson Morse

The problem of this investigation evolved through a critical review of literature pertaining to the empirical relationships between socio-economic status and various aspects of functioning in school. While different investigators did not always agree on the precise meaning of "socio-economic status" and how it is best measured, the general conclusion that emerged from most of this literature was that nearly every aspect of functioning in school (academic achievement, participation in extra-curricular activities, levels of educational aspiration, and so on) may be accounted for by the phenomena of social class. Generally the investigators failed to consider other factors, once a relationship was found between socio-economic status and some one or more of the aspects of functioning in school. Furthermore, most investigators who discovered a relationship between socio-economic status and functioning in school disregarded the necessity to conduct further inquiries on the fairly substantial proportion of negative cases that cropped up in their analyses.

The specific problem of this investigation, therefore, centered around two basic questions pertaining to the impact of social stratification on pupils' functioning in school:

1. "What social-psychological influences account for the variable functioning in school of pupils with different socio-economic status?"
2. "What social-psychological influences account for the variable functioning in school of pupils with similar socio-economic status?"

The sample for this investigation consisted of practically all ninth-grade Caucasian boys in the public schools of a typical mid-western city of approximately 120,000 population, during the 1963-64 school year (N = 874).

A theoretical orientation, based upon the symbolic interactionist approach to human behavior was developed; and two general hypotheses were obtained from that theoretical orientation and tested. Within the operational framework, levels of educational aspiration and classroom achievement constituted the school functioning variables and the following social-psychological influences were employed as test factors to account for variable school functioning: (1) perceived reference group expectations, i.e., the levels of educational aspiration pupils perceived significant others (parents, teachers, and peers) to hold for them; and (2) pupils self-concepts of their abilities.

The results of this investigation led to two major conclusions. First of all, to the extent that there is variable functioning in school among pupils with different socio-economic status, there are parallel differences in the behavior that is viewed as proper, required, necessary, and/or desirable among those pupils. Further, these definitions of appropriate attitudes and behavior are derived from, and

reflected in, the evaluations and expectations pupils with different socio-economic status perceive other persons important in their lives to hold of them, and in the pupils' self-concepts.

Secondly, the fact that variable functioning in school among pupils with different socio-economic status may, in part, be accounted for in terms of the individual pupil's association and/or interaction with significant others does not preclude the probability that the same social-psychological influences contribute to observable differences in functioning in school among pupils with similar socio-economic status.

An attempt was made to isolate the theoretical and practical implications of the findings. The thesis was ended with a discussion of the limitations of the investigation and some suggestions for future research.

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By

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CHAPTER I

THE PROBLEM

The Problem

Sociological investigations of the impact of the external environment of schools have focused almost entirely on one major problem area, the impact of social class on education. More studies have probably been devoted to this problem than any other in the sociology of education.[1] While the different investigators do not always agree on the precise meaning of "social class" and how it is best measured, the general conclusion that emerges from most of this literature is that nearly every phase of functioning in school may be accounted for by the phenomena of social class.

The pioneer studies of Warner,[2] Hollingshead,[3] and the Lynds[4] show how a student's social class position affects his role within the social system of the school. These authors leave little doubt as to the importance of social class in their discussions of academic achievement, participation in extra-curricular activities, levels of aspiration,

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[1]N. Gross, The Sociology of Education (in Sociology Today: Problems and Prospects, eds. R. K. Merton, L. Broom, and L. S. Cottrell, Jr., New York: Basic Books, Inc., Publishers, 1960), pp. 128-152.

[2]W. L. Warner, et al., Who Shall Be Educated? (New York: Harper and Row, Publishers, 1944).

[3]A. Hollingshead, Elmtown's Youth (New York: John Wiley and Sons, Inc., 1949.)

[4]R. S. Lynd and H. M. Lynd, Middletown: A Study in American Culture (New York: Harcourt, Brace and World, Inc., 1929).

the drop-out rate, and teacher-pupil relationships.[5] More recent investigations of the impact of social class on education throw but little additional light on the matter.

Abrahamson compiled data in an effort to test the hypothesis, "There is a relationship between the social class position of students in a community and the rewards and punishments received by students."[6] He chose six different communities as "proving grounds," and studied the following six reward and punishment factors: (1) academic grades on report cards and/or permanent records; (2) favor and punishment by teachers; (3) social acceptance of the students by their peers; (4) offices held by students in school and/or classroom government; (5) participation by students in extra-curricular activities; and (6) prizes and awards made by the school. Abrahamson's findings showed that students in the upper-middle and lower-middle classes received much more than their proportionate share of high grades. In addition, there was marked tendency for schools with greater percentages of upper-middle class students to give more high grades. Similarly, findings pertaining to favor and punishment by teachers, social acceptance by peers, holding school and/or classroom offices, participation

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[5]For a critical review of these pioneer studies, see W. B. Brookover and D. Gottlieb, Social Class and Family Influences (in Readings in the Social Psychology of Education, eds. W. W. Charters and N. L. Gage. Boston: Allyn and Bacon, Inc., 1963), pp. 4-7.

[6]S. Abrahamson, "Our Status System and Scholastic Rewards," Journal of Educational Sociology, 25 (May, 1952), pp. 441-450.

in extra-curricular activities, and prizes and awards made by the school all tended to favor students in the upper-middle and lower-middle classes.

Coleman conducted a study of the relationship of socio-economic status to performance among junior high school students.[7] His data showed close relationship among the factors of socio-economic status, classroom achievement, and intelligence. In addition, Coleman reported the finding of greater personality maladjustment in groups representing the lower socio-economic status category than in groups representing average or high socio-economic status categories.

A similar study was conducted by Curry with a random sample of Negro students in the southwestern United States.[8] CTMM, CAT and socio-economic data were used. Curry's findings suggested that (a) as intellectual ability decreases from high to low, the effect of social and economic conditions on scholastic achievement increases greatly; and (b) the effect of social and economic conditions is greatest upon language, while achievement in arithmetic is relatively free of the effect.

John investigated certain patterns of linguistic and cognitive behavior in a sample of Negro children from various social classes.[9]

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[7]H. A. Coleman, "The Relationship of Socio-Economic Status to Performance of Junior High School Students," Journal of Experimental Education, 9 (September, 1940), pp. 61-63.

[8]R. L. Curry, "The Effects of Socio-Economic Status on the Scholastic Achievement of Sixth Grade Children, Part I," British Journal of Educational Psychology, 32 (February, 1962), pp. 46-49.

[9]V. P. John, "The Intellectual Development of Slum Children: Some Preliminary Findings," American Journal of Orthopsychiatry, 33 (October, 1963), pp. 813-822.

He was primarily concerned with three major levels of language behavior: labeling, relating, and categorizing. Consistent class differences in language skills were shown to emerge between groups of Negro children as follows: middle-class Negro children surpassed their agemates in vocabulary (WISC vocabulary results); non-verbal I.Q. (Lorge-Thorndike); ability to produce a best-fit response (Verbal Identification, Integrative Section); and conceptual sorting and verbalization behavior. At the relational level of language, group differences were less striking (Word Association Test). Other evidence indicating the verbal inferiority of lower-class children was reported by Jahoda[10] and Lowell and Woolsey.[11]

Socio-economic status differences in performance on intelligence and aptitude tests are among the most firmly established generalizations in educational and psychological research, though the causal interpretation of such differences remains a focus of lively controversy.[12] A number of studies have accumulated over several decades to show that the correlation between socio-economic status and intelligence test scores is in the neighborhood of .35 and that scores for children of

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[10]G. Jahoda, "Social Class Differentials in Vocabulary Expansion," British Journal of Educational Psychology, 34 (February, 1964), pp. 321-23.

[11]K. Lowell and M. E. Woolsey, "Reading Disability, Non-Verbal Reasoning, and Social Class," Educational Research, 6 (November, 1964), pp. 226-29.

[12]For an unbiased discussion of this controversy, see W. W. Charters, Jr., Social Class and Intelligence Tests (in Readings in the Social Psychology of Education, eds. W. W. Charters and N. L. Gage, op. cit.), pp. 12-21.

professional families typically run from 15 to 25 points higher on the average than for children of unskilled laborers.[13]

Havinghurst and Breese studied the relation between primary mental abilities and social status in a midwestern community.[14] The Thurstone Mental Abilities Tests were given to all 13-year-old children residing in a "typical middle-western community of 6,000 inhabitants." The test results were compared for social class groups and for sex groups; and Product-Moment correlation coefficients were calculated for the several sub-tests in relation to an index of socio-economic status.

Havinghurst and Breese reported the following findings: (1) girls excelled boys in the Number, Word Fluency, Reasoning, and Associative Memory tests, while boys excelled girls in the Space test; (2) there was no reliable sex difference in the Verbal Comprehension test; (3) children of high family-social-status tended to do better in all of the tests than children of low social position; (4) coefficients of correlation of scores in the various tests with socio-economic status fell in the range, .20 to .40, which agrees with results from studies of the relation of socio-economic status to scores on a variety of intelligence tests; and (5) although the differences were not completely reliable, it appeared that the relation between ability and socio-economic status was more positive in Number, Verbal Comprehension, and Word Fluency abilities than in Space, General Reasoning, and Associative Memory abilities.[15]

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[13] Ibid., p. 12.

[14] R. J. Havinghurst and H. F. Breese, "Relation between Ability and Social Status in a Midwestern Community--III: Primary Mental Abilities," Journal of Educational Psychology, 38 (April, 1947), pp. 241-247.

[15] Ibid., pp. 246-247.

Anderson[16] and Roff and Sells,[17] in more recent investigations, have corroborated these earlier findings regarding social status differences in performance on intelligence tests. Studying a sample of 598 fifth and sixth graders in Syracuse, New York, Anderson found a high relationship between membership in three social classes--estimated on the basis of the Sims Social Class Identification Card--and Lorge-Thorndike I.Q. Unlike some previous work, however, he found no superiority of non-verbal I.Q. in lower classes.[18]

Roff and Sells investigated the relation between intelligence and sociometric status in groups differing in sex and socio-economic background. Both sociometric scores and scores on the Lorge-Thorndike Intelligence Test were acquired for all fourth grade classes, containing a total of 2,800 children, in one city. The schools were classified into quartiles on socio-economic status, making use of a combination of adult-income and educational data from the 1960 census. The difference between the upper and lower socio-economic levels on the Lorge-Thorndike Test was approximately the same in I.Q. points as the difference between upper and lower socio-economic levels on other intelligence tests, where socio-economic levels were classified according to occupational level of father.

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[16]W. F. Anderson, "Relation of Lorge-Thorndike Intelligence Test Scores of Public School Pupils to the Socio-Economic Status of Their Parents," Journal of Experimental Education, 31 (September, 1962), pp. 73-76.

[17]M. Roff and S. B. Sells, "Relation Between Intelligence and Sociometric Status in Groups Differing in Sex and Socio-Economic Background," Psychological Reports, 16 (February, 1965), pp. 511-516.

[18]Anderson, loc. cit.

At each of the four socio-economic levels, the group of high boys and high girls, defined as those with sociometric scores one standard deviation or more above the mean, were compared in I.Q. with the low boys and low girls, defined as those with sociometric scores one standard deviation or more below the mean. These results showed significant differences in I.Q. points between sociometric levels within the four social classes. The differences between the high and low groups at different socio-economic levels ranged from 11.5 to 22.1 I.Q. points with all but three values falling between 15 and 20 points. There was no consistent trend for the differences in I.Q. between high and low girls or boys to be greater at one level than another.[19]

A vast proliferation of research data gathered in the last decade seems overwhelmingly to indicate that children of different social classes in the United States hold disparate values and attitudes toward education and occupations. Reissman, in summarizing this literature, states: "There are several independent studies of widely different samples of individuals that all come to a reasonably common conclusion about aspirations: that striving for 'success' is strongest among those of the middle or upper classes."[20]

Hyman, using a national sample, presented data to support the argument that because the lower classes do not readily accept success goals and believe in their accessibility, their social aspirations and consequent achievement is lower than that of the middle and upper

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[19] Roff and Sells, loc. cit.

[20] L. Reissman, Class in American Society (New York: The Free Press of Glencoe, 1959), pp. 361-362.

classes.[21] Rosen, in a similar study, examined the notion that social classes in American society are characterized by dissimilar concern with achievement, particularly as it is expressed in the striving for status through social mobility. He hypothesized that social classes possess to a disparate extent two components of this achievement orientation: (1) a psychological factor involving a personality characteristic called achievement motivation (or Murray's Need Achievement), which provides an interval impetus to excel; and (2) a cultural factor consisting of certain value orientations which define and implement achievement motivated behavior.[22] Rosen tested his notions with a sample of students stratified by social class from public high schools in the New Haven area. He found that students who scored high on need achievement tended to make good grades, 69 percent having "B" or better as against 35 percent of those who scored low on need achievement. A test of value orientations, however, failed to discriminate significantly the low- and high-achieving students. Need achievement and value orientations were very strongly associated with social class, but a separate control run on class showed that it had virtually no independent effect on grade performance when achievement motivation was controlled.[23]

The findings of Hyman and Rosen were corroborated and complemented in the extensive research of Sewell, Haller, and Strauss. Using a much

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[21]H. H. Hyman, The Value Systems of Different Classes: A Social Psychological Contribution to the Analysis of Stratification (in Class Status and Power, eds. R. Bendix and S. M. Lipset, Glencoe, Illinois: The Free Press, 1953), pp. 426-442.

[22]B. C. Rosen, "The Achievement Syndrome: A Psycho-Cultural Dimension of Social Stratification," American Sociological Review, 21 (April, 1956), pp. 203-211.

[23]Ibid., p. 205 ff.

larger sample (a one-sixth random sample of all non-farm seniors in public and private high schools in Wisconsin in 1947-48, N = 4,167), these researchers presented findings to support their hypothesis that the apparent effects of social status on levels of educational and occupational aspiration are not simply due to the common relationship of these variables to intelligence. Because their sample was drawn randomly from a broad population of high school seniors, and because the effects of measured intelligence and sex were controlled, Sewell and his associates interpreted their findings as support for the sociological claim that values specific to different status positions are important influences on levels of educational and occupational aspiration.[24]

Research findings reported by both Reissman and Empey show that members of the lower classes, as a group, have consistently lower levels of aspiration than members of the upper classes. The study by Empey, however, demonstrates that differences in levels of occupational aspiration among social classes are not significant (and some differences even disappear) when the techniques of measurement take into account the status levels from which individuals come initially.[25] While Smith's study is similar to the above in that it shows the same relationship between social class and levels of aspiration, the study is particularly significant because it was conducted entirely among Negro students and demonstrated that the trend transcends racial lines.[26]

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[24]W. H. Sewell, et al., "Social Status and Educational and Occupational Aspirations," American Sociological Review, 22 (February, 1957), pp. 67-73.

[25]L. T. Empey, "Social Class and Occupational Aspiration: A Comparison of Absolute and Relative Measurement," American Sociological Review, 21 (December, 1956), pp. 703-709.

[26]B. F. Smith, "Wishes of Negro High School Seniors and Social Class," Journal of Educational Sociology, 25 (February, 1952), pp. 466-475.

Several investigators have reexamined social class differences in attitudes toward education and occupations by making a distinction between "aspirations," defined as what one would like to achieve, and "plans," defined as what one expects to work toward and considers possible for him. Studying the mobility orientations of 1,000 ninth grade pupils, Stephenson found no significant differences between aspirations and plans for the upper social classes; but the lower social classes, though equal in aspirations to the upper classes, had plans that were significantly lower than their aspirations. An analysis of the lower class Negro group showed that this pattern was unaffected by race, the aspirations of both races being high; but the difference between aspirations and plans was greater for lower class Negroes. These findings were interpreted as support for the conclusion, contrary to the rest of the literature, that there are no major differences between social classes in regard to attitudes toward education and occupations. Stephenson argues that all students share the general cultural value of high achievement (or mobility orientation), but that faced with obstacles imposed by class position, the lower class groups scale down their aspirations toward a reality level which results in lower plans. Further, lower class Negroes, faced with obstacles of both class and race, plan even further below their aspirations.[27]

A similar argument was presented by Weiner and Murray. According to these authors, it is the feeling of "reachableness" or "within my grasp" which differentiates the children who are in the lower socio-

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[27]R. M. Stephenson, "Mobility Orientations and Stratification of 1,000 Ninth Graders," American Sociological Review, 22 (April, 1957), pp. 204-212.

economic statuses from those in the higher social classes. So important is this feeling, these authors contend, that its lack is a major obstacle to lowering drop-out rates and inspiring the culturally deprived to continue their education.[28]

The issue has not been completely resolved, however; later researchers have not been able to verify Stephenson's theory. Holloway and Berreman could verify it only with attitudes toward education. Where occupations were concerned, the latter researchers found considerable differences between lower- and middle-class aspirations.[29] And Bennett and Gist, studying 800 urban high school students, found that both aspirations and plans showed little variation among social classes. However, type of parental influence varied dramatically with social class. Maternal influence appeared to be stronger and more effective (relative to paternal influence) at lower class levels, regardless of the race of the student.[30]

The preceding pages have been devoted to a selective review of investigations dealing with the impact of social stratification on functioning in school. The selection of studies to be included was guided by the writer's desire to include (1) representative investigations from this voluminous and multifarious body of literature; and (2) investigations

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[28]M. Weiner and W. Murray, "Another Look at the Culturally Deprived and Their Levels of Aspiration," Journal of Educational Sociology, 36 (March, 1963), p. 230.

[29]R. G. Holloway and J. V. Berreman, "The Educational and Occupational Aspirations and Plans of Negro and White Male Elementary Students," Pacific Sociological Review, 2 (Fall, 1959), pp. 59-60.

[30]W. S. Bennett, Jr., and N. P. Gist, "Class and Family Influences on Student Aspirations," Social Forces, 43 (December, 1964), pp. 167-173.

that have had and continue to have great impact on views regarding the abilities, attitudes, and behavior of students from various social strata.

The problem stated below and investigated in this thesis relates to two basic criticisms of the above and other investigations dealing with the impact of social stratification on functioning in school. The first criticism centers around the fact that most investigators of the problem terminated their analyses when the magnitude and direction of the relationship between the predictor variable (social class) and the criterion or dependent variable (some aspect of functioning in school) were ascertained.[31] Generally, the investigators failed to consider other factors, once a relationship was found between social class and some one or more of the aspects of functioning in school.[32] Consequently, there is a dearth of knowledge as to just what there is in students' socio-economic status that might lead to variations in their "educational behavior." Brookover and Gottlieb have raised a number of provocative questions regarding this matter:

> Is it, for example, a question of finances alone? Will capable lower class students who are given financial assistance express as strong an interest in college as students from the more affluent families? Is it a question of the values which are stressed by parents from the different class groups? To what extent do members of lower classes use the middle class as a reference group for educational matters and, hence, hold educational values and attitudes like the middle class? Could difference in educational success be due simply to differences in educational sophistication among individuals from the various social strata?[33]

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[31] N. Gross, A Critique of Social Class Structure and American Education (in The Sociology of Education: A Sourcebook, ed. R. R. Bell, Homewood, Illinois: The Dorsey Press, Inc., 1962), p. 208.

[32] Brookover and Gottlieb, op. cit., p. 6.

[33] Ibid.

These authors proposed that:

> Because of their own college experiences and community positions, middle class parents may have a better understanding of how schools operate, where to get information, with whom to speak in the academic bureaucracy, how to fill out applications, and so on.[34]

Probably each of these factors is operative in the relationship of social class to functioning in school. An important research problem, and one that has been infrequently attempted, is to determine the saliency of such factors and to measure their impact as students move through the various stages of the educational program.[35]

The second basic criticism of studies dealing with the impact of social stratification on education is that most investigators of the problem have disregarded the necessity to conduct further inquiries on the fairly substantial proportion of negative cases that constantly crop up in their analyses.[36] While the hypothesis that the child's

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[34] Ibid.

[35] Rosen's study of "The Achievement Syndrome" is one of the few major studies that have been devoted to this problem. See Rosen, loc. cit.

[36] A careful perusal of the literature revealed only one study that focused on negative cases in the relationship between socio-economic status and functioning in school. Kahl reported an interview study of 24 boys whose fathers had lower-middle status occupations. All of the boys had enough intelligence to complete college and thereby achieve high occupational status, yet one-half of the boys chose not to strive for such success. Instead, they planned little or no schooling beyond high school and said they would be satisfied with the lesser jobs that would likely be open to them. The aim of Kahl's study was to explore the social influences which might help to explain the choices of these boys, with particular focus on the question: why were 12 boys striving to "better" themselves while 12 were not? Kahl's interview material disclosed an important factor which accounted for some of the variation in the boys' levels of aspiration: parental pressure, by which is meant a clear and overt attempt by either or both parents to influence their son to go to college. But the smallness of Kahl's sample, as he clearly recognized, precludes any generalization of this finding. See J. A. Kahl, "Educational and Occupational Aspirations of 'Common Man' Boys," Harvard Educational Review, 23 (Summer, 1953), pp. 186-203.

socio-economic status is related to his functioning in school is generally supported,[37] each of these studies also reveals that there is considerable variability in the behavior of children from the same social class. For example, while there are noticeable class differences in levels of educational aspiration and college attendance, it is also true that many lower-class children, too, express high levels of educational aspiration and that large proportions of undergraduate and graduate student bodies are drawn from lower social strata.[38] Such deviant cases provide a strategic starting point for further analyses into the relationship of social stratification to functioning in school. Studies are needed to determine what sociological and social-psychological influences account for the variable functioning in school of pupils in the same social-class category. When social class is controlled, for example, what is the effect of variation in reference groups, motivation, self-concepts, teachers' and other adults' expectations, and similar factors on levels of aspiration, academic achievement, participation in extra-curricular activities, and so on. Indeed, variation in some of the former factors may account for some differences in the latter which have been attributed to social class.[39]

The problem investigated in this thesis centers around the two basic questions raised in the above criticisms of, and not answered in,

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[37]This hypothesis was not supported in several investigations: R. G. Baker, et al., "There is No Class Bias in Our School," Progressive Education, 27 (May, 1950), pp. 109-110; K. H. McDonald, "The Relationship of Socio-Economic Status to an Objective Measure of Motivation," Personnel and Guidance Journal, 42 (June, 1964), pp. 977-1002; and V. H. Noll and R. P. Noll, The Social Background and Values of Prospective Teachers (in The 20th Yearbook of the National Council on Measurement in Education, 1963), pp. 108-114.

[38]Brookover and Gottlieb, op. cit., p. 11.

[39]Ibid., p. 11.

existing literature dealing with the impact of social stratification on functioning in school:

1. "What social-psychological influences account for the variable functioning in school of pupils with different socio-economic status?"
2. "What social-psychological influences account for the variable functioning in school of pupils with similar socio-economic status?"

A theoretical orientation, based upon the symbolic interactionist approach to human behavior, is developed; and two general hypotheses are obtained from this orientation and tested. Within the operational framework, levels of educational aspiration and classroom achievement constitute the school functioning variables and the following social-psychological influences are employed as test factors to account for variable functioning in school: (1) perceived reference group expectations, i.e., the levels of educational aspiration pupils perceive significant others (parents, teachers, and peers) to hold for them; and (2) pupils' self-concepts of their abilities.

The operational questions from which the specific hypotheses guiding this investigation are formulated are:

1. "What is the nature of the relationship between socio-economic status and levels of educational aspiration when perceived reference group expectations are controlled?"
2. "What is the nature of the relationship between socio-economic status and classroom achievement when pupils' self-concepts of their abilities are controlled?"

3. "How do pupils with similar socio-economic status but with different levels of educational aspiration differ in perceived reference group expectations?"
4. "How do pupils with similar socio-economic status but with different levels of classroom achievement differ in self-concepts of their abilities?"

The working hypotheses formulated from these operational questions are stated in Chapter III.

Importance of the Problem

The problem investigated in this study is important for at least four specific reasons. First, it is a problem about which there is clearly a dearth of knowledge among both laymen and behavioral scientists. To be sure, relationships, however small, between socio-economic status and various types of attitudes and behavior have been demonstrated; it is well established that persons of varying socio-economic background will behave differently in almost any given situation. But empirical knowledge of this kind is of little value until it is possible to relate the social-psychological factors involved in belonging to a particular socio-economic group to the differences in attitudes and behavior. The problem investigated here, if and when resolved, will contribute considerably to a precise specification of the relationship between socio-economic background, on the one hand, and attitudes, values and behavior, on the other.

Secondly, an especially valuable aspect of the problem is its concern with the heterogeneity of attitudes and behavior to be found

among persons of similar socio-economic backgrounds. Perhaps because of an overemphasis on demonstrated relationships between socio-economic background and various types of attitudes and behavior, the fact of variability in the attitudes and behavior of persons with similar socio-economic backgrounds has frequently been overlooked and infrequently investigated. Consequently, many laymen and even some behavioral scientists make the serious mistake of pursuing socio-economic status as a single, fixed determinant of class and individual attitudes, values, and behavior. The problem investigated in this study, by focusing upon the variability in the attitudes and behavior of persons with similar socio-economic backgrounds, will contribute to more definitive knowledge along these lines. Furthermore, by focusing upon the variable attitudes and behavior of persons with similar socio-economic backgrounds, investigation of the problem lends itself to the formulation of hypotheses concerning factors conducive to social mobility.

Thirdly, from a practical or "applied" standpoint, the problem is important. There can be little doubt that the concept of social stratification is being applied in an unwise manner by many persons in education. Educational literature related to the problem has led to the unwarranted assumption that education in general is middle-class oriented, and that the problems of the middle class and educators are more closely aligned than is true of education and either the upper or lower classes. Consequently, many teachers, and even entire school systems, tend to treat pupils according to a "socio-economic" recipe. For example, individual schools within large school systems tend, on the whole, to reflect assumed socio-economic-status-linked aspirations, attitudes, values and so on within communities in which they are located. The "middle-class"

schools tend to be run in a far less regimented manner than the "lower-class" schools. Rich and challenging curriculums are offered in the "middle-class" schools; whereas, the "lower-class" schools tend to have a "watered-down" type of curriculum. Even in school systems not large enough to have schools within the different socio-economic communities, teachers and school administrators follow the socio-economic recipe. In such school systems, for example, "lower-class" pupils are infrequently placed in college preparatory programs; whereas, "middle-class" pupils are almost automatically placed in them. By demonstrating that many lower-class pupils, too, share the attitudes, values, and behavior often thought to belong uniquely to the middle class, the investigation of this problem will unveil the fallacy inherent in the above assumption and practice.

Finally, while the problem of this study is not that of testing the tenets of symbolic interactionist theory, a demonstration of the tenability of propositions derived from that theory for the investigation of this problem will in turn provide further support for that general theoretical framework.

Scope of the Investigation

Technically, the findings of this investigation are limited to the 874 boys who made up the sample used. In all probability, however, careful generalizations may be made to any social conditions and subjects similar to those tested in this investigation: all ninth-grade Caucasian boys in the public schools of a typical midwest city of approximately 120,000 population, during the 1963-64 school year. To generalize the

findings reported in this thesis beyond similar social conditions and subjects might prove to be misleading.

In addition, assuming that the theoretical orientation followed in this investigation is general and that the specific variables investigated are instances of the more general constructs embodied in that theoretical orientation, the findings and conclusions of this investigation may tentatively be extended to other variables and situations where those more general constructs may be logically employed.

Plan and Content of the Thesis

In this introductory chapter the problem of the thesis was set forth, the importance of the problem spelled out, and the scope of the investigation reported in this thesis delineated. In Chapter II the theoretical orientation of the thesis is set forth, preceded by a glossary of principal terms and concepts. The major concepts are further explicated within the discussion of the theoretical orientation. The theoretical orientation is followed by the statement of the two theoretical propositions or general hypotheses which guided the investigation. The chapter ends with a somewhat selective review of previous research that indicated the tenability of the theoretical orientation and general hypotheses advanced in the thesis.

Chapter III deals solely with the methodological procedures. In that chapter the following two major aspects of the thesis are elaborated: (1) a description of the sample used in the investigation; and (2) the research design, including the operational framework, the working hypotheses, and a description of the methods and techniques employed to test the hypotheses.

Chapter IV constitutes the central core of the investigation. It is considered central to the investigation because it deals with the statistical tests of the eight working hypotheses developed to test the two major theoretical hypotheses advanced at the outset of the investigation.

Chapter V is the concluding chapter. That chapter consists of a brief summary of all the chapters that preceded it. The major focus of the chapter, however, is upon the findings of this investigation and the implications they hold for the problem and theory of the thesis. Also, in that concluding chapter, an attempt is made to isolate the practical implications of the findings. The thesis is ended with a discussion of the limitations of the investigation and some suggestions for future research.

Summary

In this chapter the major problem of the thesis was introduced. The problem was developed through a critical analysis of existing literature pertaining to the empirical relationships between socio-economic status and various aspects of functioning in school. It was stressed that empirical knowledge of that kind is of little value until it is possible to relate the social-psychological factors involved in belonging to a particular socio-economic group to the differences in attitudes and behavior embodied in the concept of functioning in school. The importance of the investigation was further elaborated in terms of its theoretical implications and practical usefulness. The major thesis of the investigation will be further elaborated in the following chapter, where the theoretical orientation and two major propositions are set forth.

CHAPTER II

THEORETICAL ORIENTATION

Contents of this Chapter

The content of this chapter is fourfold: first, a glossary of key terms and concepts is presented. Secondly, the theoretical orientation of the investigation is elaborated. Thirdly, the two major theoretical hypotheses are stated, and the rationale for their development is set forth. Finally, a selective review of supporting research is presented. The studies selected for this review provide the empirical basis for the major theoretical orientation and hypotheses tested in this investigation.

Glossary of Terms and Concepts

The purpose of this glossary is not to take issue with, or improve upon, other definitions that may be found elsewhere. Rather, its purpose is to set forth the intended constitutive definitions of key terms and concepts so as to facilitate communication between the writer and readers of this thesis. The major concepts are further explicated within the discussion of the theoretical orientation, in the following chapter.

Classroom Achievement. This concept refers to the variable learning of materials presented or assigned within the context of the classroom. The standard indicator of classroom achievement is the teacher's

evaluation, i.e., the grade a student receives for a given period of study.

Level of Educational Aspiration. Those who study levels of aspiration speak variously of "preference" levels versus "expectation" levels, "aspiration" levels versus "plan" levels, "ideal" versus "action" goals, and so on.[1] These terms, when discussing levels of educational aspiration, refer to the level of education one wishes or desires to achieve at some designated time in the future, on one hand, and the level of education one expects to work toward and considers possible for him, on the other hand. The term, level of educational aspiration, as employed in this thesis, refers to the latter concept, i.e., the level of education one expects to work toward and considers possible for him.

Perceived Reference Group Expectations. This concept refers generally to the expectations a person perceives significant other persons in his life to hold as to his behavior. Perceived reference group expectations are defined narrowly in this thesis as the educational expectations pupils perceive their parents, favorite teachers, and best friends to hold of them.

Functioning in School. This is a general term employed to refer to school-related attitudes and behavior. It embodies such diverse phenomena as attitudes toward school, persistence in school (as opposed to "dropping

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[1]A. O. Haller and I. W. Miller, The Occupational Aspiration Scale: Theory, Structure and Correlates (East Lansing: Michigan State University, Agricultural Experiment Station, 1963), p. 8.

out"), participation in extra-curricular activities, classroom achievement, and level of educational aspiration. The latter two are the school functioning variables investigated in this thesis.

Social Class, Social Stratification, and Socio-Economic Status. These concepts are employed interchangeably in this thesis to refer to the resulting structure when families are differentiated from one another and arranged in graded strata, classes, or groups with varying amounts of education and/or income, and/or varying occupational prestige of family heads.

Self-Concept of Ability. The general term, self-concept, refers to the individual's unique perceptions and/or evaluations of himself. The more specific concept employed in this thesis, self-concept of ability, refers to a student's unique perceptions and/or evaluations of his ability to perform academic tasks.

Theoretical Orientation

The theoretical approach of this investigation shows similarity to, and draws upon, the "radical" phenomenological approach of Combs and Snygg;[2] but it is more directly based upon the symbolic interactionist approach to human behavior. The latter approach was first enunciated in the writings of Charles H. Cooley[3] and extended in a post-humous

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[2]W. Combs and D. Snygg, Individual Behavior (revised edition; New York: Harper and Brothers, 1959).

[3]C. H. Cooley, Social Organization (New York: Charles Scribner's Sons, 1909); and, Human Nature and the Social Order (New York: Scribner's Sons, 1922).

publication of George H. Mead.[4] Since the seminal contributions of these two scholars, symbolic interaction theory has continually been specified and refined.[5] This theoretical orientation posits an explanation of attitudes and behavior in the individual in terms of his association with significant others. The central concept in this explanation is the "self" or "self-concept." "The self," according to Mead,

> has a character which is different from that of the physiological organism proper. The self is something which has a development; it is not initially there, at birth, but arises in the process of social experience and activity, that is, develops in the given individual as a result of his relations to that process as a whole and to other individuals within that process.[6]

The distinctive quality of the self in this formulation is that it can become an object to itself; it can achieve distance and objectivity in looking at and evaluating itself.

The chief elements in the development of the self are language and role-taking. The crucial significance of language stems from the fact that it facilitates role-taking; it enables the individual to put himself in the place of significant others and to act as they might. Out of this continual process of taking the role of significant others emerges a self with the capacity of looking at itself from the standpoint of significant others and, thereby, orienting behavior to their expectations. The individual, according to this theoretical orientation,

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[4]G. H. Mead, Mind, Self, and Society (Chicago: University of Chicago Press, 1938).

[5]The most recent contributions are: A.M. Rose, A Systematic Summary of Symbolic Interaction Theory (in Human Behavior and Social Processes, ed. A. M. Rose, Boston: Houghton Mifflin, 1962), pp. 3-19; and J. W. Kinch, "Research Note-A Formalized Theory of Self-Concept," American Journal of Sociology, 68 (January, 1963), pp. 481-486.

[6]Mead, op. cit., p. 135.

then, experiences himself as such, not directly, but only indirectly, from the particular standpoints of other individuals who are important in his life, or from the generalized standpoint of groups of such reference individuals as a whole. It is through this process of taking the role of the other or generalized other that the self-concept emerges and directs or guides individual behavior.

This theoretical orientation has been elaborated in relation to classroom achievement, a specific instance of what is defined in this thesis as "functioning in school," by Brookover.[7] A slight modification of Brookover's formulation was, therefore, employed as the theoretical basis of the present investigation. The basic postulates of this formulation, stated in relation to functioning in school are as follows:

1. Pupils function in school in ways that each considers appropriate to himself.
2. Appropriateness of functioning in school is defined by each person through the internalization of the expectations which he perceives other important persons in his life to hold for him.
3. The functional limits of one's ability to learn are determined by his self-conception or self-image as acquired in social interaction.[8]
4. The individual learns what he believes others who are important to him expect him to learn in a given situation.

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[7]W. B. Brookover, "A Social Psychological Conception of Classroom Learning," School and Society, 87 (February, 1959), pp. 84-87; and W. B. Brookover and D. Gottlieb, A Sociology of Education (second edition; New York: American Book Company, 1964), pp. 34-35.

[8]This postulate and the following one have specific reference to classroom achievement and are quoted directly from Brookover and Gottlieb, A Sociology of Education, loc. cit.

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[8]This postulate and the following one have specific reference to classroom achievement and are quoted directly from Brookover and Gottlieb, A Sociology of Education, loc. cit.

Statement of Hypotheses

The basic problem of this thesis was formulated and investigated in terms of the above theoretical orientation. The problem was stated in Chapter I in the form of two questions. The first of these was, "What social-psychological influences account for the variable functioning in school of pupils with different socio-economic status?" In general, the theoretical orientation presented above holds that (1) individuals behave in ways that they consider appropriate to themselves; and (2) appropriateness of behavior is defined by each person through the internalization of the evaluations and expectations which he perceives others whom he considers important to hold of him.[9] This suggests that (1) the variable functioning in school of pupils with different socio-economic status is in part a function of differences in the behavior that is viewed as proper, required, necessary, and/or desirable by pupils with different socio-economic status; and (2) these definitions of appropriate attitudes and behavior are derived from, and reflected in, the evaluations and expectations pupils with different socio-economic status perceive other persons important in their lives to hold of them. Therefore, the first general hypothesis of this investigation was:

General Hypothesis 1: Perceived reference group expectations and self-concepts are related to the observable differences in functioning in school among pupils with different socio-economic status.

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[9] Ibid., p. 34.

The second question upon which the problem of this thesis focused was, "What social-psychological influences account for the variable functioning in school of pupils with similar socio-economic status?" The fact that variable functioning in school among pupils with different socio-economic status may, in all probability, be accounted for in terms of the individual pupil's interaction with significant others does not preclude the probability that the same social-psychological processes may also account for variable functioning in school among pupils with similar socio-economic status. In fact, the theoretical orientation of this investigation views all attitudes, beliefs, values, and behavior in the individual as consequences of the individual's association and/or interaction with significant other persons. The individual, as viewed by this theoretical orientation, develops definitions of appropriate attitudes, beliefs, values, and behavior through the internalization of what he perceives as the evaluations and expectations which others whom he considers important hold of him. He continually refers himself to these others, takes the attitudes of these others, and looks on himself and judges his attitudes, beliefs, values, and behavior in view of what he perceives as how these significant others evaluate him and what they expect of him. This suggests, then, that (1) to the extent that there are differences in the behavior that is viewed as appropriate by pupils with similar socio-economic status, there will be differences in their functioning in school; and (2) these definitions of appropriate behavior are derived from, and reflected in, the expectations pupils with similar socio-economic status perceive persons important in their lives to hold of them and in the pupils' self-concepts. Therefore, the second general

hypothesis of this investigation was:

General Hypothesis 2: Perceived reference group expectations and self-concepts are related to the observable differences in functioning in school among pupils with similar socio-economic status.

Supporting Research

Although the symbolic interactionist approach has long occupied a central position in social psychology, particularly among sociologically oriented members of that discipline, its employment in empirical research has been relatively scant.[10] Several reasons may be cited to account for this. Perhaps the most general reason centers around the difficulty of translating the tenets of the theory into testable hypotheses.[11] And, perhaps more specifically, the reason lies in the lack of consensus regarding the class of phenomena to which the self ought to be operationally ordered.

> The self has been called an image, a conception, a concept, a feeling, an internalization, a self looking at oneself, and most commonly, simply the self (with perhaps most ambiguous implications of all). One of these designations of the self has been attitudes...[12]

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[10] L. S. Cottrell, "Some Neglected Problems in Social Psychology," American Sociological Review, 15 (December, 1950), pp. 705-712; M. M. Helper, "Learning Theory and the Self-Concept," Journal of Abnormal and Social Psychology, 51 (September, 1955), p. 148; M. Manis, "Social Interaction and the Self-Concept," Journal of Abnormal and Social Psychology, 51 (November, 1955), p. 362; and R. Videbeck, "Self-Concept and the Reaction of Others," Sociometry, 23 (December, 1960), p. 351.

[11] F. S. Miyamoto and S. M. Dornbusch, "A Test of the Interactionist Hypothesis of Self-Conception," American Journal of Sociology, 61 (March, 1956), p. 399.

[12] M. H. Kuhn and T. S. McPartland, "An Empirical Investigation of Self-Attitudes," American Sociological Review, 19 (February, 1954), p. 68.

Yet, in spite of these difficulties, the last decade has witnessed initial advances in the empirical investigation of symbolic-interactionist notions of reference group expectations and evaluations, and the self and/or self-conceptions. The findings of some of these investigations and their implications for the problem and hypotheses of this thesis are discussed in this section.

A large number of studies have been reported which supported the proposition that self-conceptions are pliable or influenced by the evaluative reactions of significant others. Staines, in one of these studies, demonstrated that teachers, through their roles as significant others can alter the self-concepts of their pupils by making positive comments to them, and by creating an atmosphere of greater psychological security.[13] Likewise, Davidson and Lang found that pupils' perceptions of teachers' feelings toward them correlated positively and significantly with the pupils' self perceptions. Further, they found that the more positive the pupils' perceptions of their teachers' feelings, the higher their classroom achievement.[14]

Other studies have shown how parents, in their roles as significant others, influence children's self-conceptions. Perhaps the most striking evidence of this was discovered by Brookover and his associates, in a longitudinal study for which systematic data were gathered from a single class in grades 7 through 12.[15] Helper also reported small, but

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[13]J. W. Staines, "Self-Picture as a Factor in the Classroom," British Journal of Educational Psychology, 28 (June, 1956), pp. 97-111.

[14]H. H. Davidson and G. Lang, "Children's Perceptions of Their Teachers' Feelings toward Them Related to Self-Perception, School Achievement and Behavior," Journal of Experimental Education, 29 (December, 1960), pp. 107-118.

[15]This research is reviewed in greater detail below.

consistent, positive correlations between parental evaluations and children's self evaluations.[16]

Peer group influences upon the student were investigated by Coleman.[17] He discovered that, in spite of differences in parental background, type of community, and type of school, there was little difference in the standards of prestige, the activities which confer status, and the values which focus attention and interest in the nine public high schools which he studied. These findings by Coleman seem to indicate that peers, too, play an extremely important role as significant others.

Studying college students, Miyamoto and Dornbusch found that the responses, or at least the attitudes, of others was related to self-conceptions.[18] But, more importantly, they found that the subject's perceptions of that response were even more clearly related to their personal images of themselves; and, further, that the subjects' self-conceptions were still more closely related to their estimates of generalized attitudes toward them than to their perceptions of the attitudes or responses of members of a particular group. Manis, likewise, reported findings which supported the view that one's self-conception is influenced by others' perceptions of him.[19]

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[16]M. M. Helper, "Parental Evaluations of Children and Children's Self-Evaluations," Journal of Abnormal and Social Psychology, 56 (January, 1958), pp. 190-194.

[17]J. S. Coleman, "Academic Achievement and the Structure of Competition," Harvard Educational Review, 29 (Fall, 1959), pp. 339-351.

[18]Miyamoto and Dornbusch, loc. cit.

[19]Manis, loc. cit.

The proposition that one's self-conception is pliable or influenced by the evaluative reactions of others has also been tested under experimental conditions.[20] Videbeck, by experimentally varying the reactions of others, attempted to produce changes in self-ratings.[21] Successfully accomplishing that, Videbeck concluded, "Self-conceptions are learned, and the evaluative reactions of others play a significant part in the learning process."[22] Further, Videbeck concluded that "one's self-conception is an organization of discrete self-ratings which are utilized by the principle of stimulus generalization."[23]

There is considerable evidence in support of the hypothesis that pupils' performance or academic achievement in school is influenced by their self-conceptions. Indeed, this finding was revealed in the above study by Davidson and Lang. Further support for the hypothesis was revealed by Roth in an investigation of the relationship between self-concept and reading improvement in a college remedial reading program.[24] He hypothesized that there would be significant differences in the self-concepts of students who improved, did not improve, and dropped out of the program. The data obtained supported his hypothesis. Bodwin, in a similar investigation, studied the relationship between "immature" self-concept and certain educational disabilities, mainly reading and

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[20]The research of Brookover and his associates, discussed below, also tested the proposition experimentally.

[21]Videbeck, loc. cit.

[22]Ibid., p. 359.

[23]Ibid.

[24]R. M. Roth, "Role of Self-Concept in Achievement," Journal of Experimental Education, 27 (June, 1959), pp. 256-281.

arithmetic.[25] He defined "immature" self-concept in terms of self-confidence, freedom to express appropriate feelings, liking oneself, satisfaction with one's attainments, and feelings of personal appreciation by others. Bodwin reported (1) a significant, positive relationship between immature self-concept and reading disability ($r = .72$ on the third-grade level and $r = .62$ on the sixth-grade level); (2) a significant, positive relationship between immature self-concept and arithmetic disability ($r = .72$ on the third-grade level and $r = .68$ on the sixth-grade level); and (3) greater relationships between immature self-concept and reading and arithmetic disability than between immature self-concept and disability in other school subjects.

Rosenberg, in a recent investigation, studied the self-attitudes of juniors and seniors in ten New York public high schools, randomly selected from categories stratified by size.[26] The investigation dealt with several dimensions of self, but the main concern was self-esteem. Self-esteem was defined in terms of pupils' favorable or unfavorable opinions of themselves. Rosenberg's principal objectives were to specify (1) the bearing of certain social factors on self-esteem; and (2) the influence of self-esteem on socially significant attitudes and behavior (or functioning in school as defined in this thesis). The data indicated support for a number of hypotheses relevant to the problem and hypotheses of this thesis, but in many instances it appeared that the interpretations

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[25] R. F. Bodwin, "The Relationship Between Immature Self-Concept and Certain Educational Disabilities," (unpublished Ph.D. thesis, Michigan State University, East Lansing, 1957).

[26] M. Rosenberg, Society and the Adolescent Self-Image (Princeton: Princeton University Press, 1956).

advanced to account for the findings did not follow directly from the theory.

Studies cited thus far share the common theoretical notions and findings that (1) persons significant or important in another person's life can and do profoundly influence that person's concept of self; and (2) one's self-concept affects his performance and/or behavior. But none of them focused on the identification of the self as it concerns perception of ability to learn. It is this problem to which the extensive research of Brookover and his co-workers has been devoted: the identification and functioning of the self as it concerns perception of ability to learn.[27] Starting in an exploratory manner, these investigators sought to answer several questions pertinent to the nature of pupils' self-concepts of their abilities and the relation of self-concept of ability to classroom achievement:

1. To what extent are the relevant self-images of junior high school students as learners generalized to all school subjects and to what extent are they specific to particular school subjects?

2. How do the self-images of seventh grade students as learners differ by I.Q., sex, and family background?

3. How do the self-images of seventh grade students as learners differ by school achievement with sex, I.Q., and family background controlled?

4. Who are the relevant significant others to whom seventh grade students relate themselves in examining their behavior as school learners?

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[27] W. B. Brookover, et al., Self-Concept of Ability and School Achievement, Final Report of Cooperative Research Project No. 845 (East Lansing, Michigan: Office of Research and Publications, Michigan State University, 1962); Self-Concept of Ability and School Achievement, II, Final Report of Cooperative Research Project No. 1636 (East Lansing, Michigan: Bureau of Educational Research Services, Michigan State University, 1965); and research in process.

5. How do the significant others of seventh grade students differ by sex, family background, and achievement levels of the students?[28]

Brookover and his co-workers chose as the subjects and site for their investigation all seventh-grade pupils in one midwestern, urban school system in 1960-61. However, some were not included in the study. Eliminations were made for two reasons: (1) preliminary observation indicated that Negro differences on several variables were such that they should be investigated independently; and (2) several eliminations were made because of incomplete or inadequate data.

A battery of instruments were developed to assess self-concepts of ability and other social-psychological factors investigated. School grades and intelligence test scores were secured from school records. The most relevant findings of this phase of the investigation were as follows:

1. Self-concept of ability was significantly related to the classroom achievement of both boys and girls. The product-moment correlations were .57 for boys and girls.
2. Self-concept of ability was significantly related to classroom achievement even when measured intelligence was controlled. The product-moment correlations, with measured intelligence partialled out, were .42 for boys and .39 for girls.
3. High achieving groups had significantly higher mean self-concepts of ability than low achieving groups with comparable measured intelligence.

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[28]W. B. Brookover, "Relationship of Self-Images to Achievement in Junior High School Subjects," (mimeographed application, transmitted to the Commissioner of Education, U. S. Office of Education, Department of Health, Education, and Welfare), pp. 2-4.

4. Self-concept of ability was positively related to the images students perceived significant others to hold of their abilities, when parents, teachers, and peers were identified as significant others.

5. Parents were named by nearly all students as both "important in their lives" and "concerned about how well they do in school." School personnel, other relatives, and peers were named by many in response to the questions, but by smaller proportions and usually after parents were named.[29]

The present writer successfully replicated the first phase of Brookover and his co-workers' investigation the following year with the eiththh-grade Negro pupils from the same school system.[30] One aspect of that investigation, therefore, was a comparison of the Negro and white results. Generally, Brookover and his co-workers' findings were corroborated with the Negro sample. As expected, however, the comparative analysis showed that the Negro pupils differed significantly from the white pupils on all of the principal variables of the study. Another notable difference was that intelligence proved to be a significantly better predictor of classroom achievement among the white pupils than among the Negro pupils.

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[29]Brookover, et al., Self-Concept of Ability and School Achievement, Final Report of Research Project No. 845, op. cit., passim.

[30]R. J. Morse, "Self-Concept of Ability, Significant Others and School Achievement of Eighth-Grade Students: A Comparative Investigation of Negro and Caucasian Students," (unpublished Master's thesis, Michigan State University, East Lansing, 1963).

The first phase of Brookover's research provided considerable support for the symbolic interactionist hypothesis that self-concept is a functionally limiting factor in classroom achievement. But more substantial confirmation of that basic hypothesis depended upon a demonstration that levels of learning in the classroom could be modified by systematic changes in the self-concepts of the learners through interaction with significant others. Brookover and several co-workers, in a second phase of the research program, were able to demonstrate just that.[31] Three experiments were designed to enhance the self-concepts of ability of low achieving students through modification of the expectations of others with whom they interacted. It was hypothesized that classroom achievement would subsequently improve if self-concept of ability improved.

The first experiment involved the use of parents as significant others, whose experimentally induced changes in expectations might affect the self-concepts of ability and subsequently the achievement of their low achieving children. Parents were selected because of the almost universal identification of parents as significant others by students in the first phase of the research. This was called the "parents experiment." In this experiment three experimental conditions were employed: the experimental condition, the placebo condition, and the control condition. Three groups of parents of low achieving students were selected to receive the various treatments, which lasted the entire 1962-63 school year. Those treatments are briefly described below.

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[31]Brookover, et al., Self-Concept of Ability and School Achievement, II, loc. cit.

The Experimental Condition. At the first meeting the parents in the experimental group were told that as a result of current concern with academic achievement an attempt was being made to gain insight into the problems confronting the parents of junior high school students. Such insight could lead to improved achievement for their children.

The goals of the project were outlined as follows: (1) to help the child develop a more positive conception of his abilities in school; (2) to bring about a recognition that weaknesses in the academic area could be improved, and that human behavior could be changed; (3) to effect greater confidence in the child and a feeling of responsibility in the parents for the maximum achievement of their child.

During the year parents were exposed to ideas dealing with self-concept and school achievement. Though the initial reaction was one of skepticism, and even outright rejection, as the meetings progressed, there was increasing acceptance of the ideas put forth by the research staff.

The form of the meetings varied through the school year. At the first meeting the parents saw a film which introduced to them some of the ideas on the formation of the child's self-concept and the influence of self-concept on the behavior of the child. At another meeting the parents listened to a tape recording of a counselor interviewing a ninth grade girl. Both of these meetings were supplemented by discussion groups which gave the parents an opportunity to voice their opinions and ideas. During December, 1962, and January, 1963, individual conferences were held with each of the parents in the experimental group. In the spring of 1963 a panel of college students who had taught in public schools related incidents in the classroom which emphasized the relationship between self-concept and school behavior. A reading diagnostician discussed the

function of self-concept in reading difficulties. A final meeting reviewed the topics and ideas presented during the year. A report was distributed to the parents about some of the findings in the area of self-concept and performance in school. Following this final group meeting individual conferences were again held with the parents.

The purpose of these meetings was to acquaint the parents of low-achieving students with ideas involving relationships and communications between parents and children, the development of the self-concept, and how the self-concept affects school achievement.

The Placebo Condition. Meetings were also held with the placebo group of parents. These meetings centered on general problems of adolescents and education. The same format of meetings was used for this group as was used for the experimental group. The topics dealt with problems of children in their adolescence, and problems in the educational system. The last three meetings were concerned with the pros and cons of ability grouping in the school.

The Control Condition. No contact was made with the control group or their parents.

The two other experiments involved the introduction of "new others" in the interaction patterns of the students. One of these experiments involved the introduction of an "expert" on school learning who had limited contact with the group. This was referred to as the "expert experiment." Here it was sought to learn if the expectations of such an expert could counteract the expectations of established significant others and raise self-concepts and achievement.

The final experiment involved the introduction of a counselor who initiated more frequent contact with the subjects both individually and

in group situations. This was called the "counseling experiment." Here the effect of introducing a counselor who attempted to become a new significant other for low achieving students was explored.

In each of the latter two experiments, the expert experiment and the counseling experiment, experimental conditions parallel to those of the parents experiment were employed.

Each experiment was carried out in a different junior high school so as to avoid contamination of treatments; and low achieving students were randomly assigned to the experimental conditions within each of the experiments. The placebo groups were utilized in addition to the control groups in order to determine actual treatment effects and assess possible Hawthorne effects. Appropriate measures were taken to assure that there were no initial differences between the groups randomly selected in each experimental condition within the three experiments. The general design of all three experiments used a pre-post measurement. Several experimental designs were used to evaluate the three different methods of self-concept enhancement and any resulting influences on academic achievement.

The results of these experiments indicated substantial support for the general body of theory they were designed to test. In both the counseling and expert experiments the analysis indicated no significant improvements in self-concept of ability or classroom achievement for any of the experimental conditions. In the parents experiment, on the other hand, the analysis indicated that the experimental group increased significantly in self-concept of ability and classroom achievement at the end of the academic year. The placebo and control groups in that experiment did not reveal such changes.

All in all, these results provided conclusive support for the symbolic interactionist propositions that (1) persons significant or important in another person's life can profoundly influence that person's concept of self; and (2) one's self-concept affects his performance and/or behavior. In the parents experiment it was demonstrated that by altering the expectations of parents (persons who were universally identified as "significant others" by the pupils), self-concepts of ability and subsequently the school achievement of low achieving pupils could be increased. In the counseling and expert experiments, on the other hand, it was demonstrated that "new others," or other persons not recognized as "significant others" by pupils, could not counteract the expectations of established significant others and raise self-concepts and achievement.

This selective review of pertinent investigations has provided the empirical basis for the theoretical orientation and two major hypotheses advanced in this thesis. The research of Brookover and his co-workers was reviewed in considerably more detail because of the close theoretical relationship between that research and the research reported in this thesis, and because the data analyzed and reported in this thesis were gathered as part of that major investigation.

Summary

Following a glossary of major terms and concepts, the theoretical orientation upon which the present investigation is based was presented. The two general hypotheses of the investigation were derived from that theoretical orientation; and the chapter was concluded with a selective review of research that suggested the tenability of the theory and hypotheses. No effort was made to exhaust all of the investigations which

have corroborated the above theoretical orientation, nor to exhaust all of the investigations with suggestive implications for the general hypotheses of this thesis. More extensive reviews of the literature, with particular emphasis upon the self-concept, have been provided by Wylie[32] and Lavin.[33]

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[32] R. C. Wylie, The Self-Concept (Lincoln: University of Nebraska Press, 1961).

[33] D. E. Lavin, The Prediction of Academic Performance (New York: Russell Sage Foundation, 1965), pp. 90-94.

CHAPTER III

METHODOLOGY

Contents of this Chapter

In this chapter the methodological procedures used in the investigation are presented. This presentation consists of four main parts. The first part gives a brief description of the sample used in the investigation; the second part sets forth the operational definitions of concepts, i.e., a description of the research instruments used in the investigation; the third part of the chapter provides a statement of the working hypotheses developed to test the two general hypotheses of the investigation; and, finally, the fourth part of the chapter is devoted to a description of the methods, and designation of the statistics, employed to test the working hypotheses. The following chapter includes the results of the investigation.

The Sample

The sample investigated in this study consisted of practically all ninth-grade Caucasian boys in the public schools of a typical midwestern city of approximately 120,000 population, during the 1963-64 school year (N = 874). Negro pupils were eliminated from the analysis because of the high concentration of Negroes in the lower socio-economic category and because of Negro differences on several other variables investigated. Several eliminations of Caucasian pupils were made because of incomplete or inadequate data.

Research Design

Measurement. The major concepts of this investigation were constitutively defined in Chapter II and further explicated within the discussion of the theoretical orientation. The operational definitions and/or research instruments employed in the investigation are presented below.

Classroom Achievement. Classroom achievement was operationalized as the average of a subject's school grades (GPA) for the ninth grade. Grades in the four basic subjects of English, mathematics, science and social studies were used in calculating that average.

The reliability of GPA was calculated by two methods: coefficients of internal consistency, and a stability or test-retest coefficient. Using Hoyt's method of computing internal consistency reliability, the reliability of GPA for a random sample of 35 ninth-grade males was .92. The test-retest correlation between eighth-grade June GPA and ninth-grade January GPA was .81 for a random sample of 446 males; the same correlation between eighth-grade June GPA and ninth-grade June GPA was .80 for males. Ninth-grade January GPA and ninth-grade June GPA correlated .84 for the random sample of 446 males. It was thus concluded that GPA provided an internally consistent and stable measure of classroom achievement.

Level of Educational Aspiration. Two items were designed to measure levels of educational aspiration, one to measure "preference" levels, and one to measure "expectation" levels.[1] Responses to the latter question

[1]See Appendix A.

provided the measure of level of educational aspiration for this investigation.

The test-retest reliability of level of educational aspiration was calculated for a random sample of 58 tenth-grade boys, who became 16 years old between May and October of 1965. That correlation was .68 for tests administered six months apart. In view of known fluctuation in level of educational aspiration, it was concluded that the measure employed in this investigation was reasonably consistent and adequate.

Perceived Reference Group Expectations. A series of items were designed to elicit the subjects' perceptions of expectations and evaluations of themselves, as held by certain significant other persons in their lives, i.e., parents, favorite teachers, and best friends. Pretests revealed that the persons used here as significant others are most frequently mentioned by students as being important in their lives.[2] Three of the items were specifically designed to measure the subjects' perceptions of how far in school their parents,[3] favorite teachers,[4] and best friends[5] expected them to go. Those three items provided the measures of perceived reference group expectations used in this investigation.

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[2]W. B. Brookover, et. al., Self-Concept of Ability and School Achievement, Final Report of Cooperative Research Project No. 845 (East Lansing, Michigan: Office of Research and Publications, Michigan State University, 1962), pp. 55-57.

[3]See Appendix B, Item 1.

[4]See Appendix B, Item 2.

[5]See Appendix B, Item 3.

The test-retest reliabilities of perceived reference group expectations were calculated for the random sample of 58 tenth-grade boys described in the previous discussion of level of educational aspiration. The correlations between those tests, administered six months apart, were .63 for parents' expectations, .64 for favorite teachers' expectations, and .48 for best friends' expectations. Again, in view of the lengthy time interval between tests and the expectation of some instability in the variables under study, it was concluded that the measures of perceived reference group expectations employed in this investigation were reasonably consistent and adequate.

Self-Concept of Ability. This concept was operationalized as the responses of subjects to an eight-item, fixed-alternative scale designed to measure self-concepts of ability in academic endeavors, the Michigan State General Self-Concept of Ability Scale.[6]

The reliability of the self-concept of ability scale was determined by two methods: an internal consistency measure calculated from one test administration, and a test-retest correlation over a one-year period. The internal consistency reliabilities for random samples of males, calculated by Hoyt's Analysis of Variance, and Guttman Coefficients of Reproducibility are presented in Table 1. The test-retest correlation between measures taken in the eighth and ninth grades was .75 for a random sample of 446 males. Since self-concept is conceived as a set of attitudes which changes with corresponding changes in perceptions of expectations and

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[6]See Appendix C.

Table 1. Reliabilities and coefficients of reproducibility of the Self-Concept of Ability Scale for three years

	r_{tt}	Coefficient of Reproducibility	N
Seventh Grade	.82	.95	513
Eighth Grade	.91	.96	35
Ninth Grade	.92	.97	35

evaluations held by significant others, this test-retest correlation was remarkably high for a one-year period. It was thus concluded that the self-concept of ability scale provided an internally consistent and stable measurement.

Socio-Economic Status. Socio-economic status was operationalized in the following manner. Subjects were asked to respond to the items, "What does your father (or whoever supports your family) do for a living?" and "Describe what your father (or whoever supports your family) does on the job." Occupations indicated by the subjects were assigned socio-economic ratings from the widely-used Duncan Socio-Economic Index for All Occupations.[7] Where occupations were not clearly specified in response to the first item, the descriptions given in response to the second item were used to determine the appropriate occupational titles. Several

[7]O. D. Duncan, A Socio-Economic Index for All Occupations (in Occupations and Social Status, ed. A. J. Reiss. Glencoe, Illinois: The Free Press, 1961), pp. 109-161.

occupations not included in the Duncan index were assigned ratings on the basis of their similarity to occupations that were included. A subject's socio-economic status thus became the Duncan rating of his father's occupation (or the occupation of whoever supported his family). The properties and characteristics of the scale were reported by Duncan.[8] On the basis of that information, it was concluded that the use of the scale in this investigation was tenable.

Working Hypotheses. Drawn from the theoretical orientation set forth in Chapter II, the first general hypothesis of this investigation was: Perceived reference group expectations and self-concepts are related to observable differences in functioning in school among pupils with different socio-economic status. The following four working hypotheses were formulated to test that general hypothesis:

1. When pupils are classified according to the levels of educational aspiration they perceive their parents to hold for them, the relationship between socio-economic status and levels of educational aspiration will be substantially reduced.
2. When pupils are classified according to the levels of educational aspiration they perceive their favorite teachers to hold for them, the relationship between socio-economic status and levels of educational aspiration will be substantially reduced.
3. When pupils are classified according to the levels of educational aspiration they perceive their best friends to hold for them, the relationship between socio-economic status and levels of educational aspiration will be substantially reduced.
4. When pupils are classified according to their self-concepts of their abilities, the relationship between socio-economic status and classroom achievement will be substantially reduced.

The second general hypothesis derived from the theoretical orientation of this investigation was: Perceived reference group expectations and self-concepts are related to the observable differences in functioning in school among pupils with similar socio-economic status. Similarly, four working hypotheses were formulated to test that general hypothesis:

5. Pupils with similar socio-economic status, but with different levels of educational aspiration, will differ significantly in the levels of educational aspiration they perceive their parents to hold for them.
6. Pupils with similar socio-economic status, but with different levels of educational aspiration, will differ significantly in the levels of educational aspiration they perceive their favorite teachers to hold for them.
7. Pupils with similar socio-economic status, but with different levels of educational aspiration, will differ significantly in the levels of educational aspiration they perceive their best friends to hold for them.
8. Pupils with similar socio-economic status, but with different levels of classroom achievement (GPA), will differ significantly in their self-concepts of their abilities.

Methods of Testing Hypotheses. The method employed to test the first general hypothesis (i.e., working hypotheses 1 through 4) was suggested and described by Hyman.[9] It is called "Interpretation." Interpretation begins with the relationship between two variables. In

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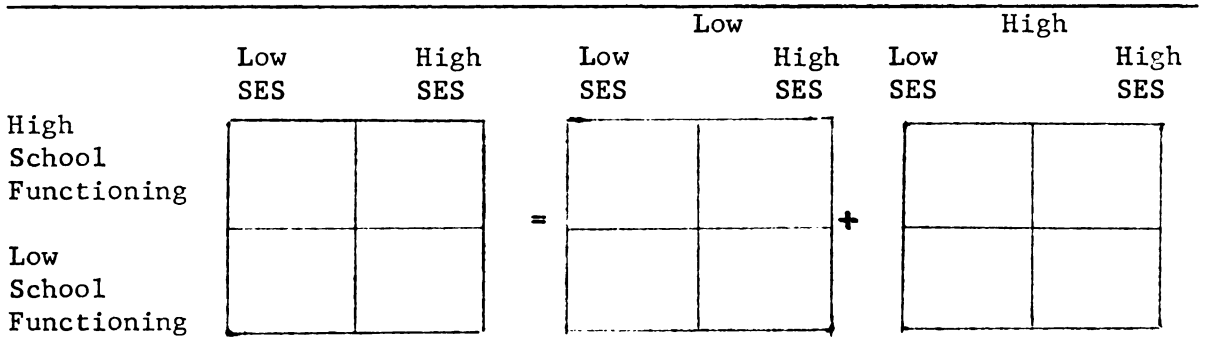
[9]H. Hyman, Survey Design and Analysis: Principles, Cases, and Procedures (Glencoe, Illinois: The Free Press, 1955), pp. 275-329.

this investigation it was the relationship between socio-economic status and two aspects of functioning in school: levels of educational aspiration and classroom achievement. While these relationships were not particularly strong, they could not be dismissed. Pupils of high socio-economic status were more likely to aspire to high levels of education and achieve high grades in school than pupils of low socio-economic status. The question was therefore raised, "What social-psychological influences account for the variable functioning in school among pupils with different socio-economic status?" In other words, "Why is there a relationship between these variables? What social-psychological influences link them together?"

The theoretical orientation of this investigation suggested perceived reference group expectations, and self-concepts of abilities as links between socio-economic status and levels of educational aspiration, and classroom achievement (General Hypothesis 1). Four working hypotheses were developed to test whether, in reality, this was a correct interpretation. Hyman stated certain conditions that the data must meet if the theoretical interpretation is to be supported by the empirical findings. The chief condition was that the partial relationships between the original variables (socio-economic status and the two school functioning variables in this investigation) must be smaller when the total sample is stratified according to different levels of the theoretical test factors introduced to interpret the original relationships (i.e., perceived reference group expectations and self-concept of ability). Therefore, the testing of working hypotheses 1 through 4 was achieved by (1) separating the total sample into partial samples which were homogeneous in degree on each of the theoretical test factors stated in

the working hypotheses; and (2) observing the partial relationships within each of the homogeneous partial samples. Figure 1 shows the paradigm employed in testing working hypotheses 1 through 4.

Figure 1. Interpreting relationships between socio-economic status and school functioning variables



Statistical relationships were tested with the chi square test.[10] Contingency coefficients (corrected[11]) were computed so as to observe differences in degrees of relationship between the total sample and the two partial samples. In testing the null hypotheses of no relationship, the .05 level of probability was employed as the criterion for acceptance or rejection. In each case where the partial relationships between socio-economic status and the school functioning variable were smaller (when the total sample was stratified according to different levels of

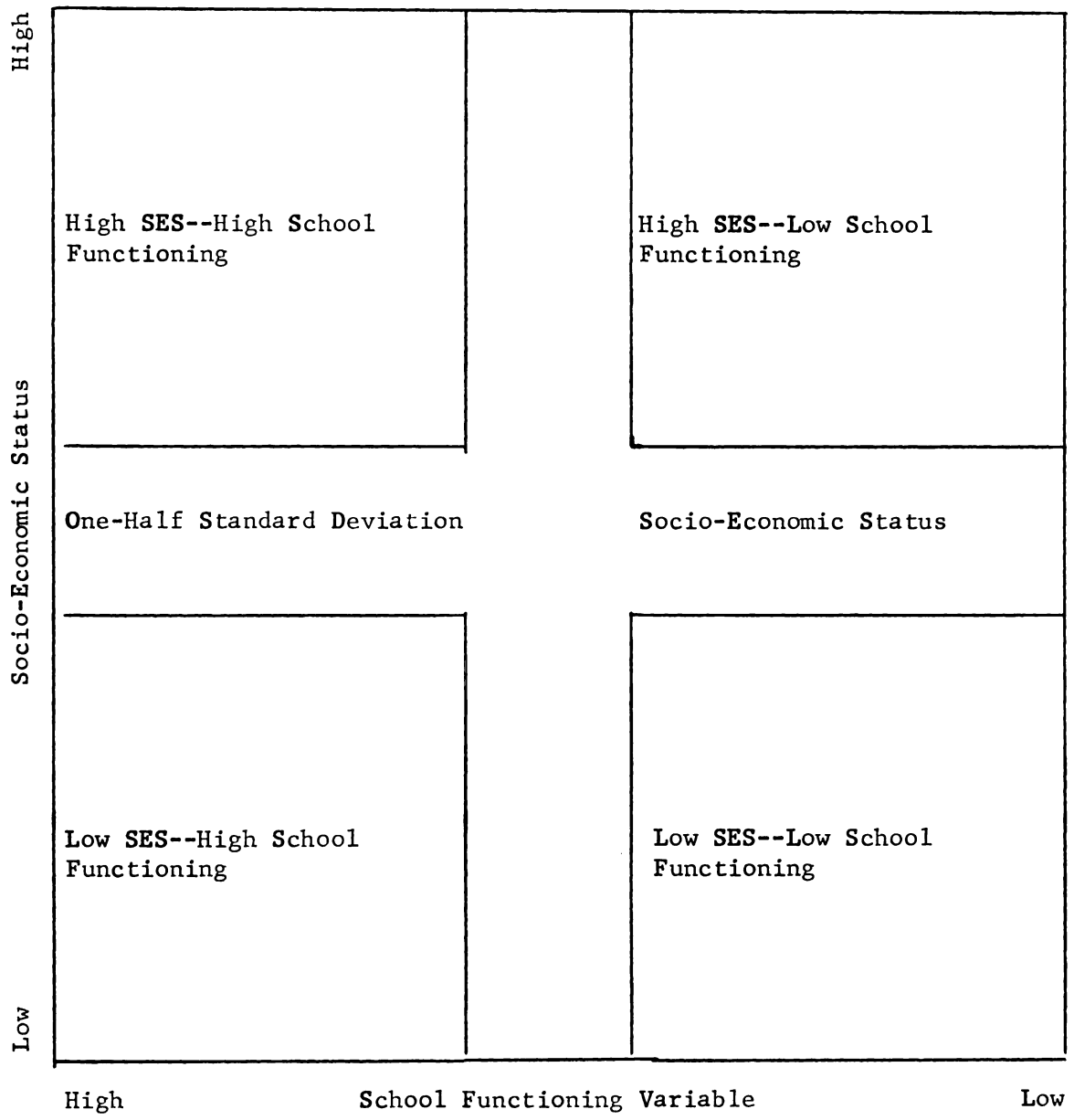
[10] S. Siegel, Nonparametric Statistics for the Behavioral Sciences (New York: McGraw-Hill Book Company, Inc., 1956), pp. 104-111.

[11] H. M. Blalock, Jr., Social Statistics (New York: McGraw-Hill Book Company, Inc., 1960), p. 230.

one of the theoretical test factors) than it was originally, that finding was taken as support for the hypothesis proposed.

The second general hypothesis of this investigation stated that perceived reference group expectations and self-concepts of abilities are related to the observable differences in functioning in school among pupils with similar socio-economic status. Similarly, four working hypotheses were formulated to test that general hypothesis (working hypotheses 5 through 8). But the method of testing them differed as follows. The mean perceived reference group expectations scores (and mean self-concept of ability scores) of students in the same socio-economic category, but with different levels of educational aspiration (and different levels of classroom achievement) were compared. The relevant groups for these comparisons were selected in the following manner: all pupils who fell within one-half standard deviation on either side of the mean of total socio-economic scores were eliminated in order to test the hypothesis for two clearly different socio-economic groups. Likewise, all pupils who fell within one-half standard deviation on either side of the mean of total scores on the relevant school functioning variable (level of educational aspiration of classroom achievement) were eliminated to make certain that the group compared were different on the school functioning criterion. By eliminating those pupils with middle range school functioning scores, as indicated in Figure 2, it was felt that the remaining pupils adequately met the criteria for testing the four working hypotheses developed to test the second general hypothesis: pupils with similar socio-economic status, but with different levels of school functioning.

Figure 2. Paradigm for interpreting observable differences in functioning in school among pupils with similar socio-economic status



Mean differences in perceived reference group expectations and self-concepts of ability, as specified in the hypotheses, were assessed between pupils who fell in the categories of High SES--High School Functioning and High SES--Low School Functioning; and between pupils who fell in the categories of Low SES--High School Functioning and Low SES--Low School Functioning. The t test of difference between means was employed in these analyses.[12] Again, the .05 level of probability was employed as the criterion for acceptance or rejection of null hypotheses. In each case where both comparisons showed a significant difference between means the relevant hypothesis was considered supported.

Summary

The primary concern of this chapter was the presentation of the methodological procedures employed in the investigation. Briefly, it consisted of (1) a description of the sample used in the investigation; (2) the operational definitions of major concepts and/or description of the measurement procedures; (3) a statement of the working hypotheses developed to test the two general hypotheses; and, (4) a description of the methods, and designation of the statistics, employed to test the working hypotheses. In the following chapter, the results of the investigation are reported.

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[12]Q. McNemar, Psychological Statistics (New York: John Wiley and Sons, Inc., 1962), pp. 102-108.

CHAPTER IV

RESULTS

Contents of this Chapter

In previous chapters the problem, theoretical orientation, and methodology of the investigation were set forth. This chapter contains the findings of the investigation. The major part of the chapter, therefore, deals with the tests of the two general hypotheses advanced earlier in the thesis. Those two general hypotheses and the eight working hypotheses developed to test them are restated, along with relevant statistical data and tests, in sequential order. The chapter is concluded with a brief summary of the research findings.

Tests of Hypotheses

General Hypothesis 1. General hypothesis 1 stated that perceived reference group expectations and self-concepts are related to the observable differences in functioning in school among pupils with different socio-economic status. The first working hypothesis developed to test this general hypothesis was:

1. When pupils are classified according to the levels of educational aspiration they perceive their parents to hold for them, the relationship between socio-economic status and levels of educational aspiration will be substantially reduced.

The analytical procedure for testing this hypothesis (and working hypotheses 2 through 4) involved (1) separating the total sample into

partial samples which were homogeneous in the levels of educational aspiration pupils perceived their parents to hold for them (and in the theoretical test factors stated in working hypotheses 2 through 4), and (2) observing the partial relationships within each of the homogeneous partial samples. Figure 1 (supra) shows the paradigm employed in these tests.

The relevant statistical data and tests for the first working hypothesis are presented in Table 2. The crucial test of the hypothesis

Table 2. Interpretation of relationship between socio-economic status and levels of educational aspiration with perceived expectations of parents as test factor

	Total Sample		Perceived Expectations of Parents			
			Low		High	
	Low SES	High SES	Low SES	High SES	Low SES	High SES
High Aspiration	34%	65%	7%	14%	69%	85%
Low Aspiration	66%	35%	93%	86%	31%	15%
N	874		382		492	
X^2	79.49		4.20		17.64	
C	.41		.15		.26	
P	< .001		<.05		< .001	

lies in the relative magnitudes of the relationship between socio-economic status and levels of educational aspiration in the total sample and the relationships between those variables in the two partial samples. Observe that in the total or original sample a fairly high relationship existed

between socio-economic status and levels of educational aspiration. This can be seen most easily by noting the size of the contingency coefficient for the original sample, C = .41. Further, it can be seen that, among pupils of high socio-economic status, the ratio of high to low levels of educational aspiration was nearly 2 to 1; among pupils of low socio-economic status, however, that ratio was approximately 1 to 2. The original relationship, then, was a relatively strong one.

In the two partial samples obtained through the introduction of perceived expectations of parents, the relationships between socio-economic status and levels of educational aspiration were less strong. Observe that pupils who perceived their parents to hold low levels of educational aspiration for them tended to hold low levels of educational aspiration for themselves, irrespective of socio-economic status. Pupils who perceived their parents to hold high levels of educational aspiration for them, on the other hand, tended to hold high levels of educational aspiration for themselves, socio-economic status notwithstanding. Observe further that the degrees of relationship between socio-economic status and levels of educational aspiration in the two partial samples, as assessed with corrected contingency coefficients, were .15 for pupils who perceived their parents to hold low levels of educational aspiration for them, and .26 for pupils who perceived their parents to hold high levels of educational aspiration for them. Because both of the partial relationships were substantially smaller than the original relationship, it was concluded that perceived expectations of parents do, in part, interpret the relationship between socio-economic status and levels of educational aspiration.

The second working hypothesis stated:

2. When pupils are classified according to the levels of educational aspiration they perceive their favorite teachers to hold for them, the relationship between socio-economic status and levels of educational aspiration will be substantially reduced.

Table 3 shows the relevant statistical data and tests for this hypothesis. Similarly, the crucial test of hypothesis 2 lies in the relative magnitudes of the relationship between socio-economic status and levels of educational aspiration in the total sample and the relationships between those variables in the two partial samples. The table shows

Table 3. Interpretation of relationship between socio-economic status and levels of educational aspiration with perceived expectations of favorite teachers as test factor

	Total Sample		Perceived Expectations of Parents			
			Low		High	
	Low SES	High SES	Low SES	High SES	Low SES	High SES
High Aspiration	34%	65%	8%	17%	70%	86%
Low Aspiration	66%	35%	92%	83%	30%	14%
N_2	874		399		475	
X^2	79.49		6.19		16.14	
C	.41		.17		.26	
P	$<.001$		$<.02$		$<.001$	

that the same over-all pattern existed in this analysis as in the previous one. In the two partial samples obtained through the introduction of

perceived expectations of favorite teachers, the relationships between socio-economic status and levels of educational aspiration were less strong. Note that pupils who perceived their favorite teachers to hold low expectations of them tended to hold low levels of educational aspiration for themselves, socio-economic status notwithstanding. Pupils who perceived their teachers to hold high expectations of them, on the other hand, tended to hold high levels of educational aspiration for themselves, irrespective of socio-economic status. Finally, it can be observed that the degrees of relationship between socio-economic status and levels of educational aspiration in the two partial samples, as assessed with corrected contingency coefficients, were .17 for pupils who perceived their favorite teachers to hold low expectations of them, and .26 for pupils who perceived their favorite teachers to hold high expectations of them. In both cases the partial relationships were substantially smaller than the original relationship. It was thus concluded that perceived expectations of favorite teachers do, in part, interpret the relationship between socio-economic status and levels of educational aspiration.

Similarly, it was hypothesized that:

3. When pupils are classified according to the levels of educational aspiration they perceive their best friends to hold for them, the relationship between socio-economic status and levels of educational aspiration will be substantially reduced.

The relevant statistical data and tests for this hypothesis are presented in Table 4. That table, like the previous two tables, shows that the perceived reference group expectations variable, perceived expectations of best friends, when introduced as a test factor to interpret the relationship between socio-economic status and levels of educational aspiration, did, indeed, reduce the original relationship

Table 4. Interpretation of relationship between socio-economic status and levels of educational aspiration with perceived expectations of best friends as test factor

	Total Sample		Perceived Expectations of Best Friends			
			Low		High	
	Low SES	High SES	Low SES	High SES	Low SES	High SES
High Aspiration	34%	65%	14%	25%	77%	91%
Low Aspiration	66%	35%	86%	75%	23%	9%
N_2	874		485		389	
X^2	79.49		8.46		14.82	
C	.41		.19		.27	
P	$<.001$		$<.01$		$<.001$	

substantially. The magnitudes of the corrected contingency coefficients were .19 among pupils who perceived their best friends to hold low expectations of them and .27 among pupils who perceived their best friends to hold high expectations of them; whereas, the magnitude of the original relationship was .41. It was therefore concluded that perceived expectations of best friends do, in part, interpret the relationship between socio-economic status and levels of educational aspiration.

The final working hypothesis developed to test General Hypothesis 1 was stated as follows:

4. When pupils are classified according to their self-concepts of their abilities, the relationship between socio-economic status and classroom achievement will be substantially reduced.

Relevant statistical data and tests for this hypothesis are presented in Table 5. As with the previous hypotheses regarding levels of educational aspiration, the crucial test of this hypothesis lies in the relative magnitudes of the relationship between socio-economic status and classroom achievement (GPA), the criterion variable, in the total sample and the relationships between those variables in the two partial samples. Note that, while not as strong as the relationship between socio-economic status and levels of educational aspiration, a positive and reasonably strong relationship existed between socio-economic status and GPA in the total sample, C = .35. The table shows that among pupils of high

Table 5. Interpretation of relationship between socio-economic status and classroom achievement (GPA) with self-concept of ability as test factor

	Total Sample		Self-Concept of Ability			
			Low		High	
	Low SES	High SES	Low SES	High SES	Low SES	High SES
High GPA	23%	48%	11%	21%	45%	67%
Low GPA	77%	52%	89%	79%	55%	33%
N	814		442		372	
X^2	54.19		7.94		17.34	
C	.35		.06		.30	
P	< .001		< .01		< .001	

socio-economic status, the ratio of high to low GPA was approximately 1 to 1; but among pupils of low socio-economic status that ratio was less

than 1 to 3. The latter ratio clearly accounted for the degree and significance of the relationship in the total sample.

In the two partial samples obtained through the introduction of self-concept of ability, the relationships between socio-economic status and levels of educational aspiration were less strong. Indeed, that relationship virtually vanished among pupils with low self-concepts of their abilities, C = .06. The table shows that among pupils with high self-concepts of their abilities, however, the relationship between socio-economic status and GPA was still relatively strong, C = .30, as compared to C = .35 in the original sample. But further observation of the table reveals that observation of the contingency coefficients alone in this case is misleading. Note that among pupils with high socio-economic status, the ratio of high to low GPA changed from approximately 1 to 1 (in the original sample) to approximately 3 to 1 (in the partial sample of pupils with high self-concepts of their abilities). Further, among pupils with low socio-economic status, the ratio of high to low GPA changed from approximately 1 to 3 (in the original sample) to approximately 1 to 1 (in the partial sample of pupils with high self-concepts of their abilities). These shifts clearly supported the hypothesis. It was therefore concluded that self-concepts of abilities do, in part, interpret the relationship between socio-economic status and classroom achievement.

The results of working hypotheses 1 through 4, collectively, were taken as support for General Hypothesis 1: Perceived reference group expectations and self-concepts are related to the observable differences in functioning in school among pupils with different socio-economic status. A discussion of those results and some substantive conclusions are presented in the next, and final, chapter of this thesis.

General Hypothesis 2. The second general hypothesis stated that perceived reference group expectations and self-concepts are related to the observable differences in functioning in school among pupils with similar socio-economic status. Similarly, four working hypotheses were formulated to test this general hypothesis. The first of these was:

5. Pupils with similar socio-economic status, but with different levels of educational aspiration, will differ significantly in the levels of educational aspiration they perceive their parents to hold for them.

The analytical procedure for testing this hypothesis (and working hypotheses 6 and 7) involved the assessment of mean differences in perceived expectations of parents (and perceived expectations of favorite teachers and best friends, as specified in working hypotheses 6 and 7) between pupils who fell in categories of High SES--High Levels of Educational Aspiration and High SES--Low Levels of Educational Aspiration. Figure 2 (supra) shows the paradigm employed in selecting the relevant groups for these comparisons.

Relevant statistical data and tests for working hypothesis 5 are presented in Table 6. The results of t tests shown in the table clearly indicate support for working hypothesis 5. Note that the mean perceived expectation of parents score was 6.03 for pupils with high socio-economic status and high levels of educational aspiration, as compared to a mean perceived expectation of parents score of 3.56 for pupils with high socio-economic status but low levels of educational aspiration. The t ratio of the difference between these means was 15.54 ($df = 232$, $p < .001$). The same mean scores were 5.85 and 3.61, respectively, for pupils with low socio-economic status and high levels of educational aspiration; and

Table 6. Means and standard deviations of perceived expectations of parents scores of pupils with similar socio-economic status but different levels of educational aspiration with t ratios and levels of significance

Socio-Economic Status	Perceived Expectations of Parents				t Ratio	Level of Significance
	High Aspiration*		Low Aspiration*			
	Mean	S.D.	Mean	S.D.		
High*	6.03 (N=191)	.86	3.56 (N=43)	1.26	15.54	df=232, $p<.001$
Low*	5.85 (N=165)	1.03	3.61 (N=118)	1.29	15.64	df=281, $p<.001$

*Those pupils with socio-economic status scores $\pm$ one-half standard deviation around the mean and those with levels of educational aspiration scores $\pm$ one-half standard deviation around the mean were excluded from this analysis to assure that high and low categories in each case are different.

pupils with low socio-economic status and low levels of educational aspiration. The t ratio of the latter difference was 15.64 (df = 281, $p < .001$). It was thus concluded that pupils with similar socio-economic status, but with different levels of educational aspiration, differ significantly in the levels of educational aspiration they perceive their parents to hold for them.

Similarly, it was hypothesized that:

6. Pupils with similar socio-economic status, but with different levels of educational aspiration, will differ significantly in the levels of educational aspiration they perceive their favorite teachers to hold for them.

Table 7 shows the relevant statistical data and tests for this hypothesis. The analysis presented in this table was similar to the

Table 7. Means and standard deviations of perceived expectations of favorite teachers scores of pupils with similar socio-economic status but different levels of educational aspiration with t ratios

Socio-Economic Status	Perceived Expectations of Favorite Teachers				t Ratio	Level of Significance
	High Aspiration*		Low Aspiration*			
	Mean	S.D.	Mean	S.D.		
High*	6.00 (N=191)	.86	3.44 (N=43)	1.24	16.13	df=232, p<.001
Low*	5.79 (N=165)	1.10	3.57 (N=118)	1.34	14.76	df=281, p<.001

*Those pupils with socio-economic status scores ± one-half standard deviation around the mean and those with levels of educational aspiration scores ± one-half standard deviation around the mean were excluded from this analysis to assure that high and low categories in each case are different.

above, the only difference being that the socio-economic status--levels of educational aspiration groups were compared in the levels of educational aspiration they perceived their favorite teachers to hold for them. Observation of the table reveals that the mean perceived expectation of favorite teacher score was 6.00 for pupils with high socio-economic status and high levels of educational aspiration, as compared to a mean perceived expectation of favorite teacher score of 3.44 for pupils with high socio-economic status but low levels of educational aspiration. The t ratio of the difference between these means was 16.13 (df = 232, p<.001). Similarly, the same mean scores were 5.97 and 3.57, respectively, for pupils with low socio-economic status and high levels of educational aspiration; and pupils with low socio-economic status and low levels of

educational aspiration. The t ratio of that difference was 14.76 (df = 281, $p < .001$). Consequently, it was concluded that pupils with similar socio-economic status, but with different levels of educational aspiration, differ significantly in the levels of educational aspiration they perceive their favorite teachers to hold for them.

It was further hypothesized that:

7. Pupils with similar socio-economic status, but with different levels of educational aspiration, will differ significantly in the levels of educational aspiration they perceive their best friends to hold for them.

The statistical data and tests for this hypothesis are presented in Table 8. In this analysis the socio-economic status--levels of educational aspiration groups were compared in the levels of educational aspiration they perceived their best friends to hold for them. The table shows that the mean perceived expectation of best friend score was 5.81 for pupils with high socio-economic status and high levels of educational aspiration, as compared to a mean perceived expectation of best friend score of 3.26 for pupils with high socio-economic status but low levels of educational aspiration. The t ratio of the difference between these means was 15.16 (df = 232, $p < .001$). Similarly, the same mean scores were 5.53 and 3.33, respectively, for pupils with low socio-economic status and high levels of educational aspiration; and pupils with low socio-economic status and low levels of educational aspiration. The t ratio of the latter difference was 15.74 (df = 281, $p < .001$). It was therefore concluded that pupils with similar socio-economic status, but different levels of educational aspiration, differ significantly in the levels of educational aspiration they perceive their best friends to hold for them.

Table 8. Means and standard deviations of perceived expectations of best friends scores of pupils with similar socio-economic status but different levels of educational aspiration with t ratios and levels of significance

Socio-Economic Status	Perceived Expectations of Best Friends				t Ratio	Level of Significance
	High Aspiration*		Low Aspiration*			
	Mean	S.D.	Mean	S.D.		
High*	5.81 (N=191)	.99	3.26 (N=43)	1.03	15.16	df=232, $p<.001$
Low*	5.53 (N=165)	1.16	3.33 (N=118)	1.16	15.74	df=281, $p<.001$

*Those pupils with socio-economic status scores $\pm$ one-half standard deviation around the mean and those with levels of educational aspiration scores $\pm$ one-half standard deviation around the mean were excluded from this analysis to assure that high and low categories in each case are different.

The final working hypothesis developed to test General Hypothesis 2 was:

8. Pupils with similar socio-economic status, but with different levels of classroom achievement (GPA), will differ significantly in their self-concepts of their abilities.

The analytical procedure for testing this hypothesis involved the assessment of mean differences in self-concepts of abilities between pupils who fell in categories of High SES--High GPA and High SES--Low GPA; and between pupils who fell in categories of Low SES--High GPA and Low SES--Low GPA. The paradigm employed in selecting the relevant groups for these comparisons was the same as that employed in selecting groups to test Hypotheses 5 through 7. Table 9 shows the statistical data and tests

Table 9. Means and standard deviations of self-concept of ability scores of pupils with similar socio-economic status but different levels of classroom achievement with t ratios and levels of significance

Socio-Economic Status	Self-Concept of Ability				t Ratio	Level of Significance
	High GPA*		Low GPA*			
	Mean	S.D.	Mean	S.D.		
High*	32.05 (N=114)	3.56	26.03 (N=67)	4.35	8.36	df=179, $p<.001$
Low*	30.64 (N=61)	3.99	24.42 (N=186)	4.57	9.51	df=245, $p<.001$

*Those pupils with socio-economic status scores $\pm$ one-half standard deviation around the mean and those with GPA $\pm$ one-half standard deviation around the mean were excluded from this analysis to assure that high and low categories in each case are different.

for working hypothesis 8. Those results clearly supported the hypothesis. Observe that the mean self-concept of ability score was 32.05 for pupils with high socio-economic status and high classroom achievement, as compared to a mean self-concept of ability score of 26.03 for pupils with high socio-economic status but low classroom achievement. The t ratio of the difference between those means was 8.36 ($df = 179$, $p < .001$). The same mean scores were 30.64 and 24.42, respectively, for pupils with low socio-economic status and low classroom achievement. The t ratio of that difference was 9.51 ($df = 245$, $p < .001$). The data thus indicated support for the hypothesis that pupils with similar socio-economic status, but with different levels of classroom achievement (GPA), will differ significantly in their self-concepts of their abilities.

The collective results presented in support of working hypotheses 5 through 8 were taken as support for General Hypothesis 2: Perceived reference group expectations and self-concepts are related to the observable differences in functioning in school among pupils with similar socioeconomic status. Those results are discussed, along with some substantive implications, in the following chapter.

Summary

The sole purpose of this chapter was to present the statistical data and tests for the eight working hypotheses developed to test the two General Hypotheses advanced at the outset of this investigation. All of those data and tests, as presented above, indicated strong empirical support for the two general hypotheses.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

The problem of this thesis evolved through a critical review of literature pertaining to the empirical relationships between socio-economic status and various aspects of functioning in school. While the different investigators did not always agree on the precise meaning of "socio-economic status" and how it is best measured, the general conclusion that emerged from most of the literature was that nearly every aspect of functioning in school (academic achievement, participation in extra-curricular activities, levels of educational aspiration, and so on) may be accounted for by the phenomena of social class. Generally the investigators failed to consider other factors, once a relationship was found between socio-economic status and some one or more of the aspects of functioning in school.[1] Consequently, the literature left almost entirely to speculation the question: "Just what is there in students' socio-economic status that might lead to variations in their 'educational behavior'?" Furthermore, most investigators who discovered a relationship between socio-economic status and functioning in school disregarded the necessity to conduct further inquiries on the fairly substantial proportion of negative cases that cropped up in their analyses. While the hypothesis that a pupil's socio-economic status is related to his functioning in school was generally supported, each study also revealed that there was considerable variability in the functioning in school of

pupils with similar socio-economic status. For example, while there were noticeable class differences in levels of educational aspiration, with the upper classes aspiring to higher levels of education, it was also obvious that many lower-class pupils, too, expressed high levels of educational aspiration.

The specific problem of this investigation, therefore, centered around the two basic questions derived from the above criticisms of literature dealing with the impact of social stratification on functioning in school:

1. "What social-psychological influences account for the variable functioning in school among pupils with different socio-economic status?"
2. "What social-psychological influences account for the variable functioning in school among pupils with similar socio-economic status?"

The sample for this investigation consisted of practically all ninth-grade Caucasian boys in the public schools of a typical midwestern city of approximately 120,000 population, during the 1963-64 school year (N = 874).

A theoretical orientation, based upon the symbolic interactionist approach to human behavior, was developed; and two general hypotheses were obtained from that theoretical orientation and tested. Within the operational framework, levels of educational aspiration and classroom achievement constituted the school functioning variables; and the following social-psychological influences were employed as test factors to account for variable functioning in school: (1) perceived reference group expectations, i.e., the levels of educational aspiration pupils

perceived significant others (parents, favorite teachers, and best friends) to hold for them; and (2) pupils' self-concepts of their abilities.

The theoretical orientation which was the basis of this investigation posits that all attitudes, beliefs, values, and behavior in the individual are consequences of the individual's association and/or interaction with significant other persons. The individual, as viewed by this theoretical orientation, develops definitions of appropriate attitudes, beliefs, values, and behavior through the internalization of what he perceives as the evaluations and expectations which others whom he considers important hold of him. He constantly refers himself to these others, takes the attitudes of these others, and looks on himself and judges and adapts his attitudes, beliefs, values, and behavior in view of what he perceives as how these significant others evaluate him and what they expect of him.

Drawn from this theoretical orientation, the two general hypotheses and eight working hypotheses developed to test them were as follows:

General Hypothesis 1. Perceived reference group expectations and self-concepts are functionally related to the observable differences in functioning in school among pupils with different socio-economic status.

1. When pupils are classified according to the levels of educational aspiration they perceive their parents to hold for them, the relationship between socio-economic status and levels of educational aspiration will be substantially reduced.
2. When pupils are classified according to the levels of educational aspiration they perceive their favorite teachers to hold for them, the relationship between socio-economic status and levels of

educational aspiration will be substantially reduced.

3. When pupils are classified according to the levels of educational aspiration they perceive their best friends to hold for them, the relationship between socio-economic status and levels of educational aspiration will be substantially reduced.
4. When pupils are classified according to their self-concepts of their abilities, the relationship between socio-economic status and classroom achievement will be substantially reduced.

The analytical procedure for testing General Hypotheses 1 (working hypotheses 1 through 4) involved (1) separating the total sample into partial samples which were homogeneous in the specified theoretical test factors, and (2) observing the partial relationships within each of the homogeneous partial samples. In each case where the partial relationships between socio-economic status and the school functioning variable were smaller than the original relationship, that finding was taken as support for the hypothesis proposed.

General Hypothesis 2. Perceived reference group expectations and self-concepts are functionally related to the observable differences in functioning in school among pupils with similar socio-economic status.

5. Pupils with similar socio-economic status, but with different levels of educational aspiration, will differ significantly in the levels of educational aspiration they perceive their parents to hold for them.
6. Pupils with similar socio-economic status, but with different levels of educational aspiration, will differ significantly in the levels of educational aspiration they perceive their favorite teachers to hold for them.

7. Pupils with similar socio-economic status, but with different levels of educational aspiration, will differ significantly in the levels of educational aspiration they perceive their best friends to hold for them.
8. Pupils with similar socio-economic status, but with different levels of classroom achievement (GPA), will differ significantly in their self-concepts of their abilities.

The analytical procedure for testing General Hypothesis 2 (working hypotheses 5 through 8) involved the assessment of mean differences in the specified test factors between pupils who fell in categories of High SES--High School Functioning (i.e., levels of educational aspiration or classroom achievement) and High SES--Low School Functioning; and between pupils who fell in categories of Low SES--High School Functioning and Low SES--Low School Functioning. In each case where both comparisons showed a significant difference between means the relevant hypothesis was considered supported.

Relevant statistical data and tests indicated overwhelming empirical support for each of the eight working hypotheses advanced to test the two general or theoretical hypotheses. The tenability of those eight working hypotheses, collectively, was interpreted as support for the two general hypotheses and the theoretical orientation from which they were derived.

Conclusions

The results of this investigation seem to warrant two major conclusions. First of all, to the extent that there is variable functioning in school among pupils with different socio-economic status, there are

parallel differences in the behavior that is viewed as proper, required, necessary, and/or desirable among those pupils. Further, these definitions of appropriate attitudes and behavior are derived from, and reflected in, the evaluations and expectations pupils with different socio-economic status perceive other persons important in their lives to hold of them, and in the pupils' self-concepts.

Secondly, the fact that variable functioning in school among pupils with different socio-economic status may, in part, be accounted for in terms of the individual pupil's association with significant others does not preclude the probability that the same social-psychological processes may also, in part, account for variable functioning in school among pupils with similar socio-economic status. In fact, the results of this investigation support the conclusion that the same social-psychological influences account for the observable differences in functioning in school among pupils with similar socio-economic status.

Contributions. The major contribution of this investigation lies in the fact that it provided suggestive implications for a more precise specification of the relationship between socio-economic background, on one hand, and attitudes, beliefs, values, and behavior, on the other, a matter about which there is clearly a dearth of knowledge in current social-psychological and sociological literature. While it cannot be claimed that the problem was completely resolved by this investigation, the investigation did, indeed, provide a start in that direction.

Furthermore, while the problem of this investigation was not that of testing the tenets of symbolic interactionist theory, demonstration of the fruitfulness of that general theoretical framework in this investigation provided further support for it.

Practical Implications. The practical or "applied" implications which the results of this investigation holds for education, particularly at the elementary and secondary levels, are of grave significance, since various concepts of social stratification seem to play a central role in contemporary educational theory and practice at these levels (e.g., the "economically" or "culturally" deprived). It is a foregoing assumption in much of this theory and practice that education in general is middle-class oriented, and that the values of the middle class and education are more closely aligned than is true of education and either the upper or lower classes, but particularly the lower classes. Consequently, many teachers, and even entire school systems, tend to treat pupils according to a socio-economic recipe.[1]

This investigation, by focusing upon the variability in the attitudes and behavior of pupils with similar socio-economic backgrounds, and revealing that this variability, too, may, in part, be accounted for in terms of the individual's association with significant other persons, implies the seriousness of the mistake of pursuing socio-economic status as a single, fixed determinant of class and individual attitudes, beliefs, values, and behavior. Indeed, the results of this investigation imply that educators, by following such a theory and taking it into practice, may foster many of the observable socio-economic status differences that are generally explained away with concepts such as "lower-class," "economically deprived," and so on. Educators, therefore, would perhaps profit by considering how the types of social and social-psychological environments the school provides pupils from the various social strata may affect those pupils' attitudes, beliefs, values, and behavior.

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[1] cf., Supra, pp. 17-18.

Limitations and Suggestions for Future Research. Technically, the results of this investigation are limited to the 874 Caucasian boys who made up the sample used. In all probability, however, careful generalization may be made to any social conditions and subjects similar to those tested in this investigation: all ninth-grade Caucasian boys in the public schools of a typical midwest city of approximately 120,000 population.

In addition, assuming that the theoretical orientation followed in this investigation is general and that the specific variables investigated are instances of the more general constructs embodied in that general theoretical orientation, the results and conclusions of this investigation may tentatively be extended to other variables and situations where those more general constructs may be logically employed.

Given that the two major hypotheses and theoretical orientation of this investigation are tenable, within the above limitations, several questions may be advanced for future related research:

1. Do the same social-psychological influences function in the same way to account for variable functioning in school among girls with different (and similar) socio-economic status?
2. Do the same social-psychological influences function in the same way to account for variable functioning in school among pupils of various ethnic groups (boys and girls) with different (and similar) socio-economic status?
3. Are there regional differences in the functioning of these social-psychological influences?

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APPENDIX A

LEVEL OF EDUCATIONAL ASPIRATION ITEMS

Please circle the letter in front of the statement which best answers each question.

1. If you were free to go as far as you wanted to go in school, how far would you like to go?

    a. I'd like to quit right now.
    b. I'd like to continue in high school for a while.
    c. I'd like to graduate from high school.
    d. I'd like to go to secretarial or trade school.
    e. I'd like to go to college for a while.
    f. I'd like to graduate from college.
    g. I'd like to do graduate work beyond college.

2. Sometimes what we would like to do isn't the same as what we expect to do. How far in school do you expect you really will go?

    a. I think I really will quit school as soon as I can.
    b. I think I really will continue in high school for a while.
    c. I think I really will graduate from high school.
    d. I think I really will go to secretarial or trade school.
    e. I think I really will go to college for a while.
    f. I think I really will graduate from college.
    g. I think I really will do graduate work beyond college.

APPENDIX B

PERCEIVED REFERENCE GROUP EXPECTATIONS ITEMS

1. How far do you think your **PARENTS** expect you to go in school?

   a. They expect me to quit as soon as I can.
   b. They expect me to continue in high school for a while.
   c. They expect me to graduate from high school.
   d. They expect me to go to secretarial or trade school.
   e. They expect me to go to college for a while.
   f. They expect me to graduate from college.
   g. They expect me to do graduate work beyond college.

2. How far do you think this **TEACHER** (i.e., "your favorite teacher--the one you like best) expects you to go in school?

   a. He (she) expects me to quit as soon as I can.
   b. He (she) expects me to continue in high school for a while.
   c. He (she) expects me to graduate from high school.
   d. He (she) expects me to go to secretarial or trade school.
   e. He (she) expects me to go to college for a while.
   f. He (she) expects me to graduate from college.
   g. He (she) expects me to do graduate work beyond college.

3. How far do you think this **FRIEND** expects you to go in school?

   a. He (she) expects me to quit as soon as I can.
   b. He (she) expects me to continue in high school for a while.
   c. He (she) expects me to graduate from high school.
   d. He (she) expects me to go to secretarial or trade school.
   e. He (she) expects me to go to college for a while.
   f. He (she) expects me to graduate from college.
   g. He (she) expects me to do graduate work beyond college.

APPENDIX C

SELF-CONCEPT OF ABILITY SCALE--GENERAL
(Form A)
Michigan State University
Bureau of Educational Research

Circle the letter in front of the statement which best answers each question.

1. How do you rate yourself in school ability compared with your close friends?

   a. I am the best.
   b. I am above average.
   c. I am average.
   d. I am below average.
   e. I am the poorest.

2. How do you rate yourself in school ability compared with those in your class at school?

   a. I am among the best.
   b. I am above average.
   c. I am average.
   d. I am below average.
   e. I am among the poorest.

3. Where do you think you would rank in your high school graduating class?

   a. among the best
   b. above average
   c. average
   d. below average
   e. among the poorest

4. Do you think you have the ability to complete college?

   a. yes, definitely
   b. yes, probably
   c. not sure, either way
   d. probably not
   e. no

5. Where do you think you would rank in your class in college?

   a. among the best
   b. above average
   c. average
   d. below average
   e. among the poorest

Go on to next page

6. In order to become a doctor, lawyer, or university professor, work beyond four years of college is necessary. How likely do you think it is that you could complete such advanced work?

    a. very likely
    b. somewhat likely
    c. not sure either way
    d. unlikely
    e. most unlikely

7. Forget for a moment how others grade your work. In your own opinion, how good do you think your work is?

    a. My work is excellent.
    b. My work is good.
    c. My work is average.
    d. My work is below average.
    e. My work is much below average.

8. What kind of grades do you think you are capable of getting?

    a. Mostly A's
    b. Mostly B's
    c. Mostly C's
    d. Mostly D's
    e. Mostly E's