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The effects of race and socio-economic-status on behavior disorders in 362 black and white clinic boys between the ages of six and twelve, were investigated using the Child Behavior Check List. Precision matching and a representative distribution of socio-economic-status was used in order to adequately study both the interaction and individual contributions of each variable.

Significant race effects showed whites scoring higher than blacks on the depression and aggression scales, and blacks scoring higher than whites on the hyperactive scale. All significant interaction effects of race and socio-economic-status on the behavior problems scales reflected two patterns: white high socio-economic-status subjects scoring higher than black high socio-economic-status and black low socio-economic-status scoring higher than white low socio-economic-status. These patterns reflect more pathology in white high socio-economic status subjects on the depression, social withdrawal and aggression scale than in the matched black group, and more pathology in black low socio-economic-status subjects on the uncommunicative and hyperactive scale than in the matched white group.

Race and Socio-Economic-Status in Child Psychopathology

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# RACE AND SOCIO-ECONOMIC-STATUS IN CHILD PSYCHOPATHOLOGY

## Introduction

One of the greatest handicaps to research and communication in child psychopathology is the lack of a standardized, objective, reliable way of describing and classifying behavior disorders. Present labels are not only of little use but may be harmful due to the stigmas that are attached and the categorical nature of services they dictate (Achenbach & Edelbrock, Note 1). These failures of the present classification create a strong need for the development of a better system for classifying children into behavioral types (Langner, Gerstein, & Eisenberg, 1974).

Current approaches to the development of a classification system have employed two types of ratings: those based on amount of symptomatology and those based on adaptation or role function (Langner, et al., 1974). Several experts in the field (Achenbach & Edelbrock, Note 1), have suggested the need for a classification system employing both types of ratings. As discussed by Achenbach and Edelbrock (Note 1) behavioral ratings alone are inevitably crude and behavior disorders are unlikely to yield the kinds of precise positive criteria that exist for organic diseases. Thus, it is important to determine how characteristics of children, such as developmental level and various competencies, can add to the power of a classification system.

Work by Achenbach (Note 2) has led to the development of a descriptive classification system which reflects both adaptive competencies as well as behavior problems. The Child Behavior Checklist (CBCL) has produced two broad band and nine narrow band syndromes of child

behavior problems. The two broad band syndromes: internalizing and externalizing; and the nine narrow band syndromes: schizoid, depressed, uncommunicative, obsessive-compulsive, somatic complaints, social withdrawal, hyperactive, aggressive and delinquent, have been found in other studies (see Achenbach & Edelbrock, Note 1, for more detail).

There is a considerable body of data existing on the CBCL, derived from substantial samples which have found the CBCL to be adequately reliable and stable on repeated measures by the same observer (Achenbach, Note 2). However, greater differentiation was needed regarding systematic comparisons between samples differing on race and socioeconomic-status (SES).

Research by Achenbach (Note 2), and Achenbach and Edelbrock (Notes 3, 4, 5) have adequately investigated the effects of age and sex. However, the effects of race and SES are in need of further investigation. The purpose of this research was to examine the interaction and individual contribution of these variables on the CBCL, using more rigorous data than had previously been used in studies of SES and race. Systematic comparisons of black and white, male clinic subjects were made on subjects precision matched on age and SES.

#### Review of the Literature

Unquestionably the two most common demographic variables used in the classification of children with behavior disorders are age and sex. Achenbach (Note 2) and Achenbach and Edelbrock (Notes 3, 4, 5) have done parallel analysis of subjects grouped by age and/or sex and found both similarities and differences related to the age and sex of the child.

SES and race have also been found to be important demographic variables in research dealing with psychopathology (Lapouse & Monk, 1964). These two variables tend to obscure relationships because they are heterogeneous in nature. That is, they are conglomerate concepts which involve genetic, familial, social and physical variables. The predominance of racial minorities in the lower SES groups in the U. S. may well have obscured the individual contribution of race and/or SES as well as their interaction.

Achenbach (Note 2) has found significant SES effects, with low SES subjects having higher scores than upper SES subjects on the behavior problems section of the CBCL. Significantly higher scores for lower than upper SES subjects were found on the narrow band scales of, depressed, obsessive-compulsive, aggressive and delinquent. Middle SES subjects yielded significantly higher scores than lower class subjects on the delinquent scale. The SES effect was also significant for the broad band factor externalizing and for the total scores on the CBCL.

On the social competence scales the effect of SES was significant, with lower SES subjects having the lowest and upper SES subjects the highest scores. It is important to note that the sample Achenbach used was composed of normal and clinic males, ages 6 through 11. The racial composition of the sample was 79.4% white, 18.3% black and 2.3% other. Since the effects of race were neither investigated, nor controlled in the study, the influence of race as a variable was not ascertained.



There is, therefore, a need to examine these data to explore the effect of race on CBCL scores.

#### Purpose

Among the studies (Achenbach, Note 2; Achenbach & Edelbrock, Notes 1, 3, 4, 5; Schectman, 1970; Schectman, 1971) using Achenbach's data, none has investigated the effect of race and SES on behavior disorders in children by using a substantial sample of black children precision matched to a sample of white children by age and SES. Having noted both the confusion and correlation between race and SES, it is evident that precision matching and a representative distribution of SES is of great importance if the individual effects as well as the interaction are to be adequately studied.

Following are the questions to which special attention was given:

1. Do the individual effects, or the interaction of race and/or SES significantly affect the scores on the two broad band on the nine narrow band factors?
2. Are there significant race and/or SES differences on the total number of problems or total scores?
3. Do the individual effects or the interaction of race and/or SES significantly affect the scores on the social competence scales?

## Methodology

### Instrument

The research program on which the data for this study was based were obtained from the parent or parent surrogate by means of the CBCL. The CBCL was developed by Achenbach as a descriptive classification system that can be used for research and clinical purposes and which reflects both adaptive competencies as well as behavior problems. The adaptive competencies include participation in various activities, social relationships, and school success. Items from these areas comprise the three social competence scales on which children are scored on involvement and attainment in the three areas, in relation to norms for their age and sex.

The behavior problems section of the CBCL includes 118 items to which the parent or parent surrogate responds by circling a 0, 1, or 2 according to how well the item describes the child (i.e., if the item is not true, a 0 would be circled). It is important to note that high scores on the social competence measure reflect positive social competences while high scores on the behavior problems portion reflect pathology. The obtained data are then entered on the Child Behavior Profile (Achenbach, Note 2), which displays the reported items and the child's standing on narrow and broad band groupings. The narrow groupings include: schizoid, depressed, uncommunicative, obsessive-compulsive, somatic complaints, social withdrawal, hyperactive, aggressive and delinquent. The first five problem scales make up the first broad band

group labeled "internalizing," while the last three make up the second broad band group labeled "externalizing." Unweighted raw scores (0, 1, 2) for all items of a scale are summed to give a subject's total score on a scale and on the broad band factors. The total scores on the nine scales are then transformed into T scores for each of the narrow band groupings. The total number of problems (ignoring the degree to which they are present) can be summed to give the total number of reported problems for both the internalizing scale and for the externalizing scale.

#### The Sample

The sample is composed of CBCLs filled out by parents of 362 boys being evaluated in 20 east coast mental health settings. The majority of the guidance clinics were publicly subsidized, with private practitioners supplying some data. The behavior problems sample is composed of this total sample, which includes 181 black males between the ages of 6 and 11 years who are precision matched to 181 white males by age and SES. Socio-economic-status was measured on Hollingshead's (Note 6) 7-step scale for breadwinner's occupation. The race and SES distribution for this sample is given in Table 1.

The social competence sample is a subgroup of the behavior problem sample described above, which also had scores for the social competence section of the CBCL. It is composed of 86 black clinic males precision matched to 86 white clinic males by age and SES. Table 2 shows the race and SES distribution of the social competence sample.

### Statistical Analysis

To assess any differences in scores on the nine narrow band factors related to age, SES and race, repeated measures ANOVAs were performed according to age, race and SES. Socio-economic-status was divided into 2 levels, 1 through 4, and 5 through 7 of Hollingshead's occupational categories. This division allowed for adequate cell sizes and for comparisons with other studies, since the two SES groups represent the blue collar and working class stratas. Age was also divided into two levels, 6 through 8 years and 9 through 11 years. Again, this allowed for comparison with previous studies and for adequate cell sizes. Those interactions showing repeated measure effects of scale were further investigated by ANOVA performed on each individual scale.

Separate age, SES, and race ANOVAs on the total scores and total problems for the internalizing and externalizing dimensions, as well as the total problems and total raw scores, were used to investigate any differences related to the mentioned variables.

Parallel analyses were performed on the three social competence measures, again according to age, race and SES. Any interaction with repeated measures which were significant were further analyzed by ANOVA on the individual scale.

Least Significant Difference test (Winer, 1971) was used to test specific contrasts for all double and triple interactions which proved significant,

## Results

### Behavior Problems Scales

A 2(age) x 2(SES) x 2(race) x 9(repeated measures on behavior problems scales) ANOVA showed no effect for age ( $F=.8$ ), race ( $F=.9$ ), or SES ( $F=.8$ ), but did show a significant race and SES interaction  $F(2,362)=4.39$ ,  $p < .05$ . The repeated measure effect of scale was significant,  $F(8,2896)=42.03$ ,  $p < .001$ , as was the interaction of scale with race,  $F(8,2896)=3.32$ ,  $p < .001$ . Modified Least Significant Difference contrasts showed significantly ( $p < .05$ ) higher scores for whites on the depression and aggression scale and significantly higher scores for blacks on the hyperactive scale. There were no significant interaction effects of repeated measure with two or more of the variables.

Since the interaction of age with race and/or SES was not significant a 2(SES) x 2(race) x 9(repeated measures) ANOVA was performed to increase the power of the test. The interaction effect of repeated measure, with race and SES was significant,  $F(8,2896)=2.04$ ,  $p < .05$ . Modified Least Significant Difference contrasts showed significantly higher scores for white high SES subjects than black high SES subjects on the depression, social withdrawal and aggression scales, and significantly higher scores for black low SES subjects than white low SES subjects on the uncommunicative and hyperactive scales. White subjects were found to score significantly higher ( $p < .05$ ) than black subjects on the depression scale, which was the only significant scale-race interaction.

### Internalizing and Externalizing, Total Problems and Total Scores

Separate 2 (SES) x 2 (age) x 2 (race) ANOVAs on internalizing total problems, internalizing total scores, externalizing total problems, externalizing total scores, total problems and the total raw scores, showed significant interactions of race and SES on total problems, total score, externalizing total score and externalizing total problems, with  $F(1,355)$  values ranging from 4.3 to 5.7,  $p < .05$ . Further contrasts using the Modified Least Significant Difference test found not specific differences. However, the means for all white, high SES subjects were higher than those of the matched black group, while the means for the black, low SES subjects were all higher than those of the white matched group. No other differences were significant in any of the other ANOVAs. Table 3 presents the mean scores and standard deviations, collapsed over age.

### Social Competence Scales

In a 2 (SES) x 2 (age) x 2 (race) x 3 (repeated measures on social competence scales) ANOVA, there were no significant effects between or within any of the above variables. However, the interaction of scale, SES and age was significant  $F(2,306)=4.57$ ,  $p < .01$ . Socio-economic-status x age x race ANOVAs on each of the three social competence scales showed significant interaction of race and SES on the social scale  $F(1,163)=5.87$ ,  $p < .05$ , and age and SES interaction effects on the social scale  $F(163)=4.25$ ,  $p < .05$  and the activities scale  $F(1, 163)=4.77$ ,  $p < .05$ . Further contrasts by

use of the Least Significant Difference test showed black high SES subjects to score significantly ( $p < .05$ ) higher than white high SES subjects on the social scale, but no further significant contrasts of age and SES on the social and activities scales.

#### Summary

All significant effects of race and SES on the behavior problems scales reflect two patterns: white high SES subjects scoring higher than black high SES and black low SES subjects scoring higher than white low SES on the Child Behavior Check List (CBCL). These patterns reflect more pathology in white high SES subjects on the depression, social withdrawal and aggression scale than in the matched black group, and more pathology in black low SES subjects on the uncommunicative and hyperactive scale than in the matched white group. The patterns are also reflected in the means of the four CBCL scores: total problems, total score, externalizing scores and externalizing total.

On the social competence measure black high SES subjects scored significantly higher than white high SES subjects on the social scale. This indicated greater social competence in black high SES subjects than in the matched white group.

Results further suggest the strong influence of the interaction of race and SES. Previous studies of SES on the CBCL did not investigate the effects of the race-SES interaction and thus question what the individual influence of SES was. Continued analyses of CBCL data concerning the interaction of race and SES

with broader sampling and the investigation of the presence or absence of parent bias in responding (note parent scoring) to the CBCL is suggested.

Implications for future or past research on race and/or SES are apparent, in that the interaction of race and SES must be controlled for if the effects of the individual variables are not to be obscured. Investigation of race and SES variables on other check lists using precision matching of representative samples would be a valuable addition to our understanding of child psychopathology.



Table 1  
Socio-Economic-Status and Race Distribution of  
Subjects for the Behavior Problems Sample

SES	Black	White	Total
10	2	2	4
15	1	1	2
20	12	13	25
25	1	0	1
30	11	11	22
35	5	5	10
40	60	60	120
50	19	19	38
55	1	1	2
60	30	31	61
65	2	0	2
70	37	38	75

Table 2  
Socio-Economic-Status and Race Distribution of Subjects  
for the Social Competence Sample

SES	Black	White	Total
10	2	1	3
20	10	10	20
30	6	6	12
35	3	4	7
40	32	32	64
50	10	11	21
60	8	13	21
70	15	9	24

Table 3

Mean Scores and Standard Deviations for Black and White Subjects  
on Scales of the Child Behavior Check List

Scale	Lower SES		Upper SES	
	Black	White	Black	White
Behavior Prob.				
Schizoid	62.5 (10.4)	63.1 (10.0)	62.4 (10.5)	62.2 (11.5)
Depressed	62.3 (10.5)	67.5 (8.4)	64.5 (9.3)	65.1 (8.1)
Uncommunicat.	66.2 (12.8)	67.6 (9.8)	67.5 (11.0)	63.7 (10.5)
Obsessive-C.	63.8 (10.2)	63.7 (10.6)	65.7 (10.2)	63.8 (9.9)
Somatic-Comp.	61.3 (8.7)	60.5 (8.1)	59.1 (8.0)	60.2 (8.3)
Social With.	63.3 (9.4)	66.6 (10.0)	65.5 (9.9)	63.2 (9.1)
Hyperactive	67.0 (10.2)	66.8 (9.4)	69.3 (8.9)	66.0 (8.3)
Aggressive	65.0 (10.9)	69.1 (11.3)	69.6 (11.3)	68.5 (10.8)
Delinquent	67.8 (8.7)	67.9 (9.1)	69.8 (8.9)	68.0 (8.5)
Intern. T. Pr.	64.3 (10.8)	67.7 (9.7)	66.3 (10.5)	66.0 (9.4)
Exter. T. Pr.	67.3 (10.6)	69.6 (10.1)	71.1 (9.6)	69.0 (9.4)
Inter. T. Sc.	21.3 (13.5)	24.4 (12.2)	23.0 (12.2)	22.3 (12.4)
Exter. T. Sc.	28.9 (13.7)	32.3 (13.4)	34.2 (13.8)	30.8 (12.9)
Total Prob.	41.8 (16.8)	46.3 (15.0)	45.4 (15.6)	42.1 (13.6)
Total Sc.	55.7 (25.4)	62.5 (24.4)	64.1 (25.5)	58.8 (23.7)
Social Compet.				
Activit.	44.0 (11.0)	43.9 (11.8)	40.4 (12.2)	43.3 (11.2)
Social	44.1 (12.1)	36.2 (12.2)	39.8 (12.4)	41.3 (11.0)
School	43.7 (13.2)	41.2 (11.8)	39.1 (11.4)	38.6 (12.0)

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## Appendix A

## Review of the Literature

The mounting interest on children with special problems led to the federal government sponsoring the Project on the Classification of Exceptional Children (Hobbs, 1975a, 1975b). The diverse experts contributing to the project generally agreed that most current labels for exceptional children are not only of little use but are actually harmful because of the stigmas they confer and the categorical nature of services they dictate (Achenbach, et al., Note 1).

A brief history of past and present classification systems speaks to this. The first edition of the American Psychiatric Association's (1952) Diagnostic and Statistical Manual (DSM-I), provided only two categories specifically for children. These were labeled Adjustment Reaction and Childhood Schizophrenia. A national survey of children seen in psychiatric clinics showed that 70% of these children were either unclassified or were classified as having adjustment reactions (Rosen, Bahn, & Kramer, 1964).

The second edition of the Diagnostic and Statistical Manual (DSM-II) published in 1968 and the classification system proposed by the Group for the Advancement of Psychiatry (GAP, 1966), added several categories of behavior, but give no hint as to how to operationalize the categories. The reliability estimates of the GAP and the DSM-II for between diagnosticians agreement averages about 60% for major categories and grows increasingly unreliable as specificity increases (Freeman, 1971; Sandifer, Pettus, & Quade, 1964; Tarter, Templer, & Hardy, 1975). The

inadequacies of both the GAP and DSM-II in providing appropriate diagnostic categories for children's disorders has handicapped communication, treatment and research on child behavior disorders.

The validity of these systems is difficult to determine, since it is not clear what external criteria the system should be measured against. Thus, due to our ignorance of etiologies, prognoses, and treatment, determination of validity is precluded.

In one of the few studies of the relationship between current classification and current choices of treatment, whether or not the treatment choices are appropriate, Bannister, Salmon, and Leiberman (1964) studied the relations between treatment and three different classification levels employed by English psychiatrists with 1,000 patients. The most general level of classification comprised the categories of: psychotic, neurotic, and organic. While the most specific level comprised the major categories of the International Classification of Disease, on which the American DSM is based. None of the three levels of classification was found to determine treatments actually employed for more than about 33% of the patients. Thus, diagnostic classification was not extremely influential in determining the treatment to be employed.

As previously mentioned, present approaches to classification have employed two types of ratings: those based upon the amount of symptomatology and those based on social competence or role function. If one assumes, "that psychopathology in children is best understood in relation to the changes--progressions, regressions, deviations, successes and

failures--that occur in the course of children's attempts to master the developmental tasks they face" (Achenbach, 1974, p. iii), then it follows that the concept of role function or social competence in addition to symptomatology, may be important in developing ways of identifying the behaviors and experiences which result in the child's success or failure at mastering the necessary developmental tasks. A study by Kellam and Schiff (1967) supports the importance of role function ratings. They found that role function ratings of children by psychiatrists were better predictors of later role function or symptomatic ratings, than were symptomatic ratings.

Both Freud's and Erikson's theories of psychosexual and psychosocial development relate to social competencies by their specification of developmental stages through which the child must pass to become a functioning, healthy individual. According to Erikson (1968) the elementary school aged child is in a stage of "industry versus inferiority." It is during this stage that the child is most ready to learn quickly and avidly by sharing, persevering, producing and performing. In Piaget's (1967) stage theory of cognitive development the elementary school aged child is in the stage of concrete operations. There are two basic characteristics of children in this stage: first, the individual learns to effectively collaborate in group activities. Social competence measures such as that in Achenbach's CBCL (Note 2), which includes scales on activities, social and school, take these developmental tasks into consideration.



The relationship between social success with peers (i.e., popularity) in childhood and later mental health has been suggested by recent studies. Cowen, Pederson, Babigan, Izzo and Trust (1973) found unpopular children to be disproportionately represented later in life in a community wide psychiatric register. Roff, Sells, and Golden (1972) studied a sample of 40,000 children in 21 cities and found that, excluding the lowest socio-economic class, there was a high positive correlation between percentage delinquent and low peer-acceptance.

Another measure of the child's role function or social competence is school adjustment. Considerable evidence shows that educational maladjustment is associated with personal maladjustment in school-aged children (Burke & Simons, 1965; Morse, Cutler & Fink, 1964). The findings of a close relationship between the two is not unexpected since accomplishment in school related activities constitutes one of the major developmental tasks of youth in our society.

Data for assessment of children's disorders are generally provided by adults' observations. This is largely due to the fact that children normally do not seek treatment or report their own behavior problems. Parents rather than other adults often have more information on the child's problems and competencies, and, thus, provide most of the information collected about a child. This information, like that of clinicians and teachers is vulnerable to distortion. Miller's (1964) finding of higher agreement of clinicians and teachers with parents than with each other suggests the value of parental reports over that of clinicians or teachers. Not only do parents demonstrate higher levels

of agreement, they are also more likely to provide a more complete picture of their children's behavior than are other observers (Novick, Rosenfeld, Bloch & Dawson, 1966). Also, most parents have observed the child's behavior in various situations and over a longer period of time which gives them more data on which to base their judgments. This may be of great importance considering that clinic-referred children have been found to not differ significantly from non-referred children when observed in a standardized clinic environment, but did demonstrate significantly more deviant behavior when observed at home (Lobitz & Johnson, 1975).

As reports suggest, the deviancy of a child's behavior may depend as much on parental perception as on child behavior per se. Distortions by parents have been documented by comparing data gathered longitudinally on the child's early development with reports of the parents when the parents were requesting psychiatric evaluation of the children (Chess, Thomas & Birch, 1966). The effect of SES on parent ratings were studied by Glidewell, Domke and Kantor (1963). They found no significant difference between four different SES levels on parent scoring. The specific relationship between race of parent and parental scoring has not been tested, but reports based on teacher ratings have found the frequency of specific behaviors to vary according to the race of the child.

The reliability and validity of the data upon which diagnostic conclusions are based can be improved by having parents use empirically derived structured rating forms describing the behavior of their children. Scores on checklists filled out by parents just prior to their initial

clinic interview and those filled out by parents 30 days later correlated .84, which is a higher test-retest reliability than found for most diagnostic procedures. The ratings of parents and therapists was also found to be high for individual items (Wimberger & Gregory, 1968). It was also revealed that the number of symptoms checked by the parent far exceeded the number reported in diagnostic interviews, indicating that the checklist may provide a more complete report of the child's symptoms than an interview.

Through factor analysis of the items on a checklist, broad and narrow band syndromes (i.e., groups of behavior problems which statistically are associated with one another) can be derived. In a review and analysis of empirical efforts to develop a classification system for child psychopathology (Achenbach, et al., Note 1) found that the broad band syndromes which they labeled undercontrolled (aggressive, externalizing, acting-out, conduct disorders) and overcontrolled (inhibited, internalizing, shy-anxious, personality disorder), are evident in all the studies meeting the criteria to be included in their review.

Those sources of data which included second-order analysis revealed narrow band syndromes which are hierarchically related to the two broad band syndromes. The narrow band syndromes labeled Aggressive, Delinquent, Hyperactive and Schizoid were each found in a minimum of eight studies. Each of the syndromes labeled Anxious, Depressed and Social Withdrawal were found in five to six studies. The Obsessive-Compulsive, Somatic Complaints and Uncommunicative syndromes were found in three studies.

Unquestionably age and sex are the two most common demographic variables studied in child psychopathology. As mentioned, the effects of age and sex have been adequately investigated on the CBCL (Achenbach, Note 2, Achenbach, et al., Notes 3, 4, 5), by parallel analysis of subjects grouped by age and/or sex. Both similarities and differences related to the age and sex of the child are reported. Achenbach (Note 2) found older (8-11 year olds) clinic subjects to score significantly higher on the depression and social withdrawal scales than younger (6-8 year olds) clinic subjects. In an earlier study (Achenbach, 1966) it was found that Externalizers outnumbered Internalizers by about two to one among boys with the ratio reversed for girls. Other studies (Borgatta & Fanshel, 1965; Jenkins & Glickman, 1946) also report both similarities and differences related to the age and sex of the child.

Race and SES have also been found to be important demographic variables in research dealing with psychopathology in children (Lapouse & Monk, 1964; Harrison, McDermott, Wilson, & Schragar, 1965). These two variables tend to obscure relationships because they are heterogeneous in nature. That is, they are conglomerate concepts which involve genetic, familial, social and physical variables. The predominance of racial minorities in the lower SES groups in the U. S. may well have obscured the individual contribution of race and/or SES as well as their interaction.

Studies have revealed that the frequency of specific problems reported within syndromes varies with the age, sex, race, and SES of the child (Eaves, 1975; Schultz, Salvia & Feinn, 1973, 1974; Touliatos & Lindholm, 1975). Schectman (1970, 1971) found that the frequency of

specific problems reported within syndromes varies with the age, sex, race and SES of the child. She also found that white children seen in clinics were much more deviant from peers than are black children seen in clinics.

A study by Langner, Gersten and Eisenberg (1974) investigated ethnic background variables in relation to child psychopathology. They found that white children showed more conflict with peers and fighting with peers and siblings, while blacks scored higher on delusion-hallucinations and delinquency. Thus, whites were described as more prone to intra-familial conflict, blacks to extrafamilial conflict and antisocial behavior.

The contributions of race to child behavior were greater than those of class. Class and race made separate contributions to child behavior and pathology, illustrated by the effects of the two generally being additive, not interactive, with the effects of race and class not greater than their sum.

Another study (Eisenberg, Gersten, Langner, McCarthy & Simcha-Fagan, 1976) looked at ethnic variables in child psychopathology. Their sample was made up of three major ethnic groups, of which 27% were white, 37% black, and 36% Spanish-speaking. Of the 1,000 children studied, all were from families on Welfare AFDC. The data were cluster analyzed, which resulted in six profile types which were found to be significantly associated with ethnic background. Spanish-speaking children were disproportionately high in all of the more pathological child types, while black children showed disproportionately low numbers in all of the more pathological child types. Black children were the only ethnic group

over-represented in both of the two healthiest child types, the Mildly Dependent and Competitive-Independent types. The overall pattern of white children was more similar to black children than to Spanish-speaking children, with white children also showing a little more pathology in their pattern than the blacks showed in their pattern.

Lapouse and Monk (1964) using a sample of nonpsychiatric children composed of 419 white and 63 black children, investigated whether there were variations according to SES and race. For the entire Personal Behavior area, which included all subareas, no significant differences were found. Differences for individual subareas and items were found to generally favor the white children. It is important to note, however, the disproportionate sample size by race and the fact that the total black sample was lower class while that of the white sample was composed of both lower and upper class.

Achenbach (Note 2) has found significant SES effects, with low SES subjects having higher scores than upper SES subjects on the behavior problems section of the CBCL. Significantly higher scores for lower than upper SES subjects were found on the narrow band scales of, depressed, obsessive-compulsive, aggressive and delinquent. Middle SES subjects yielded significantly higher scores than lower class subjects on the delinquent scale. The SES effect was also significant for the broad band factor externalizing and for the total scores on the CBCL.

On the social competence scales the effect of SES was significant with lower SES subjects having the lowest and upper SES subjects the highest scores. It is important to note that the sample Achenbach used

was composed of normal and clinic males, ages 6 through 11. The racial composition of the sample was 79.4% white, 18.3% black and 2.3% other. Since the effects of race were neither investigated, nor controlled in the study, the influence of race as a variable was not ascertained. There is, therefore, a need to examine these data to explore the effect of race of CBCL scores.

## Appendix B

## References

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