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Brief Report

Maladjustment in Statistical Minorities Within Ethnically Unbalanced Classrooms[1]

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Ascertained if being a member of a statistical minority influences children's adjustment in school, as measured by the AML, a teacher-administered adjustment rating scale. Teachers from a southwest school district evaluated elementary students on aggressive, acting-out behaviors, moody-internalized behaviors, and learning difficulties. Analyses conducted on 376 students revealed significant effects of statistical minority status on certain dimensions of adjustment ratings for both Hispanic and Anglo students. Hispanic students in the statistical minority received poorer ratings on the moodiness dimension of the AML than nonminority Hispanic students. Anglo students in the statistical minority received poorer ratings on the aggression dimension of the AML than nonminority Anglo students. These results were interpreted in terms of cultural differences in coping with statistical minority status. Traits commonly exhibited within a culture may intensify and be perceived as maladaptive when stress resulting from being a minority occurs. Implications of the finding that statistical minority status within the school environment influences adjustment are discussed.

Evidence accumulating over nearly five decades suggests that individuals who "fit in" in a particular environment experience less stress, social isolation,

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and subsequent maladjustment than those who do not (Dee, 1942; Faris & Dunham, 1939; Klee, Spiro, Bahn, & Gorwitz, 1967; Levy & Rowitz, 1973; Mintz & Schwartz, 1964; Rabkin, 1979; Rosenberg, 1962; Tracey & Sherry, 1984). Unlike approaches implying that people with certain demographic or personality characteristics are prone to various impairments, making the characteristic itself a reliable indicator of high risk, a person-environment congruency approach considers an individual within the context of his or her community. Consistent with this approach, the present study focuses on the identification of elementary school students at risk for psychological maladjustment within the context of their immediate classroom environment.

One indicator of person-environment congruency concerns how similar an individual is to his or her peers or neighbors, in terms of sociodemographic characteristics. Wechsler and Pugh (1967) tested the hypothesis that "people with a particular personal characteristic who are living in communities where the characteristic is less common should have a higher rate of psychiatric hospitalization than people with the characteristic living in communities where it is more common" (p. 220). Wechsler and Pugh found support for this phenomenon in 11 out of 15 instances tested. For example, they found that persons 15-34 years of age had higher mental hospital admission rates if they resided in a community with a relatively low proportion of 15- to 34-year-olds than when they resided in a community with a higher proportion of like persons. Similarly, Rosenberg (1962) reported that among a sample of New York State high school students, those raised in incongruent neighborhoods (where one quarter or less of the community had the same religious affiliation) reported lower self-esteem, more depression, and more psychosomatic symptoms than peers raised in a more congruent environment. These studies suggest that any individual who is a member of a statistical minority within his or her community or immediate environment may be susceptible to adjustment difficulties and/or the development of physical and psychological dysfunctions. This phenomenon is referred to here as the "statistical minority effect."

The present study sought to extend the research on statistical minorities to the school environment. To our knowledge, no studies considering the adjustment of children who are members of statistical minorities in their schools have been conducted. However, Wanlass and Prinz (1982) suggested that social isolation in school settings leads to low rates of peer interaction, lack of popularity, peer rejection, social skills deficits, and anxiety. Thus, it seems likely that children in the statistical minority in this setting, where they spend many hours per day, would also suffer due to this isolation. If statistical minority status in a school environment is a predictor of maladjustment, this information may be helpful in designing interventions to prevent them and to address their consequences. In the present study children

who were in the ethnic minority in classrooms in a Southwestern school district were examined. The Southwest provides the unusual opportunity to conduct an ethnically counterbalanced study, controlling which of the two most populous ethnic groups is in the majority. Although neither Anglo nor Hispanic individuals constitute a significant statistical minority within many communities in the Southwest, statistical minorities often do exist within certain schools due to school boundary lines. It was predicted that the level of maladjustment would be high for Anglo children when they are in the minority in their classrooms, and high for Hispanic children when they are in the classroom minority.

Because other studies (Cowen et al., 1973; Dorr, Stephens, Pozner, & Klodt, 1980) have noted a tendency for dysfunction in schoolchildren to increase with age, it seemed worthwhile to examine students' mental health over different grade levels. Inclusion of this variable also makes it possible to determine if age interacts with minority status in its association with maladjustment. The influence of the student's sex as a potential contributor to adjustment level was also examined. Cowen, Lorion, Dorr, Clarfield, and Wilson (1975) reported disparities in the school adjustment ratings of girls and boys. Also, Dorr et al. (1980) found that teachers generally evaluated fourth-, fifth-, and sixth-grade boys as more poorly adjusted than girls. By including the variables of sex, age, and ethnicity it was possible to examine their relationship to classroom composition and maladjustment.

METHOD

Participants

The total sample comprised 584 elementary school children (270 female, 314 male) attending six Las Cruces, New Mexico, schools. Of these children, 238 were of Anglo heritage, 308 were of Hispanic heritage, and the 41 remaining students were from other ethnic groups. The six schools were chosen from district records to represent Anglo majority, ethnically balanced, and Hispanic majority schools. Grades 1 through 6 were sampled, with a minimum of four classrooms representing each grade.

Of the 584 children originally assessed, data from 376 students were used for analysis. Of this sample of 172 girls and 204 boys, 160 were of Anglo heritage and 216 were of Hispanic heritage. The number and reason data for children were discarded is as follows: (a) 24 children had been a student in the class for less than 3 months (Cowen et al., 1973); (b) 41 children were of neither Hispanic nor Anglo origin; and (c) the child was a member of a classroom in which ethnic composition did not satisfy the criteria of having

a definite Anglo or Hispanic majority, or an equal ethnic balance (66 Anglo and 77 Hispanic students were deleted).

Classrooms designated as equally proportioned had no less than a 0.7:1 Hispanic to Anglo student ratio, with an average ratio of 0.9:1. Classrooms from which children were designated as being in the Anglo statistical minority had no less than a 2.5:1 Hispanic to Anglo student ratio, with an average ratio of 8:1. Classrooms from which children were designated as being in the Hispanic statistical minority had no less than a 1.9:1 Anglo to Hispanic student ratio, with an average ratio of 3:1. These proportions were determined empirically to meet two criteria. A maximum difference in Hispanic to Anglo student ratios between equally proportioned and unbalanced classrooms was desired while assuring a minimum of 20 children in every condition (to increase statistical reliability). There were 10 Hispanic majority, 6 equally proportioned, and 5 Anglo majority classrooms.

Materials and Procedure

Twenty-six teachers (21 Anglo, 5 Hispanic or mixed heritage; 22 female, 4 male) were paid $20 each to evaluate their students with the AML scale. The AML scale is a standard, mass-screening device which was used to assess adjustment in this study.[3] It is a brief, understandable, reliable, and valid screening tool when used by non-mental health professionals and by teachers (Cowen et al., 1973). The scale includes 11 items that gauge a student's aggressive, acting-out behavior (the 5-item A subscale); moody, withdrawn behavior (the 5-item M subscale); and learning difficulty (the single-item L subscale). For each item, the teacher rated incidence of the child's behaviors on a 5-point continuum ranging from *never* (1) to *most or all of the time* (5).

In addition, the teachers were asked to report the sex and ethnicity of each student evaluated. Also reported was whether or not the child had transferred into the class after the beginning of the school year. Last, teachers indicated if the child participated in the free lunch program. This information was used as an index of socioeconomic status.

[3]Descriptive analyses of the AML, conducted on both the total sample and the subsample, and a principal components analysis produced results similar to those found in previous studies (Cowen et al., 1973; Carberry & Handal, 1980; Dorr et al., 1980) in terms of subscale correlations, sex and grade level trends, and factor loadings. These findings suggest the AML is a reliable measurement scale across studies and that the students sampled in this study did not exhibit any particularly unusual characteristics.

RESULTS

MANCOVA and ANCOVA on AML Scores

A 2 (Hispanic vs. Anglo Origin) × 3 (Anglo Dominant, Hispanic Dominant, or Equal Classroom Ratios) × 2 (Female vs. Male) × 3 (Grade Level: first and second vs. third and fourth vs. fifth and sixth) between-subjects factorial analysis was employed. Teacher ethnicity (2 levels: Anglo and Hispanic origin teachers) and free lunch participation (2 levels: participation vs. no participation) were also included in the analyses as covariates, since preliminary analyses suggested that these variables significantly influenced rating outcomes. These covariates were entered into the model first, thus their effects were controlled for in tests of the remaining variables. Since teacher sex was tested but had no effects on AML scores, it was not included in subsequent analyses. Because there are some empirical and theoretical relationships among the subscales of the AML, a multivariate analysis of covariance (MANCOVA) was performed to examine the overall influence of the between subjects factors. In addition, analyses of covariance (ANCOVA) were conducted on the separate subscales to elaborate on the multivariate effects.

The covariates, teacher ethnicity and free lunch, both exerted significant influences in the multivariate analysis of the AML ratings. Hispanic teachers displayed a strong and consistent tendency toward evaluating their students (both those of Anglo and Hispanic origin) more favorably than Anglo teachers ($p < .009$). Higher AML scores (indicating greater maladjustment) were associated with children who participated in the free lunch program ($p < .001$). In addition, boys were more poorly adjusted than girls ($p < .05$), and Anglos were more poorly adjusted than Hispanics ($p < .04$). There were no other significant main effects or interactions.

Tests of Predictions Employing Planned Comparisons

Based on the specific predictions of the study, planned comparison MANCOVAs and ANCOVAs were conducted (Hays, 1973) to contrast students in the numerical minority to their peers who constituted either the classroom majority or who were members of a classroom with a roughly equal ethnic mix. Since the research suggests there is a link between mental health deficits and statistical minority status, the ratings of children in the minority were compared to children who were not in the minority, which included both those in majority and ethnically balanced classrooms.

Separate contrasts were conducted to compare Hispanic students in the minority versus nonminority conditions and to compare Anglo students in

Table I. Ethnic Comparisons by Proportions—Mean Values[a]

	Hispanic minority		Balanced		Anglo minority	
Scale[b]	Hispanic (n = 27)	Anglo (n = 67)	Hispanic (n = 62)	Anglo (n = 69)	Hispanic (n = 127)	Anglo (n = 24)
A	9.04 (4.5)	9.51 (3.9)	8.61 (4.6)	10.17 (5.3)	9.74 (4.5)	11.75 (5.0)
M	9.55 (3.4)	9.50 (3.6)	8.00 (2.8)	9.15 (3.7)	8.35 (2.4)	9.04 (3.2)
L	2.37 (0.8)	1.85 (1.2)	2.40 (1.3)	2.16 (1.3)	2.53 (1.2)	1.87 (0.8)

[a]Higher scores indicate greater maladjustment. Standard deviations are in parentheses.
[b]A refers to the aggression scale, M to the moodiness scale, and L to the learning scale.

the minority versus nonminority conditions. These contrasts controlled for teacher ethnicity and the child's free lunch status. Means for each AML subscale for each ethnic group as a function of minority/nonminority status are presented in Table I.

Hispanic Students. The a priori contrasts in which AML scores of Hispanic students who were in Anglo majority classrooms were compared to the AML scores of Hispanic students who were in Hispanic majority or ethnically balanced classrooms revealed a significant multivariate effect, $F(2, 296) = 3.59$, $p < .02$. Follow-up univariate analyses of variance revealed that the moodiness subscale contributed most to this effect. Statistical minority Hispanic students received higher ratings of moodiness ($p < .002$) than nonminority Hispanic students.

Anglo Students. The a priori contrasts in which AML scores of Anglo students who were in Hispanic majority classrooms were compared to the AML scores of Anglo students who were in Anglo majority or ethnically balanced classrooms revealed a significant multivariate effect, $F(2, 296) = 2.80$, $p < .04$. Follow-up univariate analyses of variance revealed that the subscale contributing most to the overall effect was the aggressiveness scale. Statistical minority Anglo students received higher ratings of aggressiveness ($p < .03$) than nonminority Anglo students.

DISCUSSION

The present findings clearly support the predictions derived from the statistical minority literature. Children who were in the statistical minority within their classrooms were perceived as having higher levels of psychological maladjustment than their nonminority counterparts. The results lend support to an ecological viewpoint that considers the individual from within the context of his or her social milieu. Our findings suggest that factors other than cultural background and social class, which traditionally have been the focus of study, should be examined when considering mental health risk in schoolchildren.

Although Anglo and Hispanic children received the poorest ratings when they were statistical minority members, the analysis of the individual subscales indicated that Anglo children were perceived as responding with greater aggression and Hispanic children as responding with greater moodiness when they were in the statistical minority. This finding may be attributed to cultural differences in conflict resolution styles for children who are in a statistical minority. Stephan and Stephan (1985) argued that anxiety in intergroup contexts amplifies normative behavior patterns. Since acting in an aggressive manner is associated with less negative sanctions among Anglo than Hispanic students (Kagan & Madsen, 1971), Anglo students in Hispanic majority classrroms may respond to the anxiety and stress generated by the situation with more aggression than Anglo students who are not in the statistical minority. It may also be the case that Anglo students respond to their minority status with aggression for additional reasons. Blalock (1967) argued that because Anglo individuals are in a culturally superordinate position within our society, they act to preserve their dominant position. From this perspective, the power of the Anglo students is threatened when they are statistically few, and these children may respond to this perceived threat with aggression in order to assert dominance.

In contrast, Triandis, Marin, Betancourt, Lisansky, and Chang (1982) described a central cultural script among Hispanics known as *simpatia.* This term refers to a stable personal quality in which a person strives to be seen as likable, easygoing, conforming, and fun to be with. In *simpatia* the emphasis is on avoiding conflict and on positive behavior, and on deemphasizing negative behaviors. Burma (1970) noted a stress on politeness, agreeableness, keeping one's temper, and enduring stress passively among Mexican-Americans. Adherence to this cultural script may intensify when a child is in an environment where being in a statistical minority sets her or him apart from most of the group. Thus, aggressive, acting-out behaviors are minimized and the child may instead engage in behaviors that are interpreted by teachers as moodiness.

It should be acknowledged that the present findings are based on teacher perceptions and not on clinical observations of the children's behavior. Thus it could be that the children are not displaying maladaptive behaviors, and rather, the teachers just perceived them that way. Concerning this interpretation, two points, however, must be made. First, several arguments can be presented that it is not just teacher perceptions. Teacher ratings on the AML have been validated through clinical observations (Cowen et al., 1975; Dorr et al., 1980). Also, although possible, it is unlikely that teachers' perceptions would vary for children as a function of the children's statistical minority status, especially in a differential fashion for each ethnic group on the AML subscales. Second, even if the effects are based solely on teacher perceptions, the findings still have important implications for students' mental health.

If the teachers' perceptions are labeling biases, they ultimately could lead to differential treatment of and resultant problems in the children. In fact, since little is known about the processes underlying the statistical minority effect (Wechsler & Pugh, 1967) it is possible that the stigma of being in the statistical minority does result in differential perceptions and treatment of minority individuals, which in turn produces maladaptive behavior.

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