Contextual Factors Associated with the Achievement of African American and European American Adolescents: A Diversimilarity Approach

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The current study is an extension of Luster & McAdoo's 1994 study of African American children and ecological factors impacting academic performance of these children. Luster and McAdoo found that maternal educational level, income, number of children and living conditions were related to how well children performed in school. Those children from impoverished backgrounds with uneducated mothers had lower quality academic performance. Using the Nation Longitudinal Survey of Youth data (1992), the current study investigated similarities and differences
in the impact of ecological factors in European American (n = 266) and African American adolescents (n = 400). The results indicated that the home environment best predicts academic performance in African American adolescents while neighborhood conditions are better predictors of academic performance in European American adolescents. This difference may be related to the function of education for the two groups. Education may be a vehicle for status enhancement for European American adolescents. For African Americans, education may enhance class but not social status associated with racial minority status. These results suggest that educational efforts be developed to assist all adolescent in achieving both status and class objectives.

Introduction

Past research focused on the deficiencies of African American children and adolescents. This approach reflected the dominant research paradigm characterized by the ethnocentric school of thought. Luster and McAdoo advanced the field by suggesting that researchers move from this pathology driven approach to examine family and environmental factors that distinguish African American children who are successful from their peers who are less successful. Their study found that the family characteristics of high achieving African American children was markedly different from low-achieving children. Specifically, African American children with high scores tended to come from small families with supportive home environments and incomes well above the poverty level. They also had mothers who were relatively well educated and scored higher on self-esteem and intelligence tests.

Recent studies have emphasized the role of diversity with regard to academic achievement (Luster and McAdoo, 1080-94). However relatively few have addressed both within and between group comparisons in terms of similarities. It is the position of this study that similarities across ethnic groups are as important as differences between ethnic groups. The Diversimilarity Approach which encompasses group similarities and differences can be viewed as a natural extension diversity
exploration. By recognizing and understanding similarities and differences the importance and value of ethnic differences regarding academic achievement can be used to develop strategies for effectively addressing issues which impede academic achievement in all adolescents.

**Early Literature**

The early literature on African American children and families tended to emphasize problems thereby assuming a pathological approach with regard to African Americans (Franklin; Moynihan). This literature, associated with the cultural ethnocentric school, has been criticized for ignoring the historical and economic contexts within which African American families find themselves (Dodson, 67-82). Adaptation to adverse environmental and economic conditions has led to family formation unique to African Americans. In contrast to the pathological approach, the cultural relativity school has focused on these unique qualities as strengths and as linkages to African heritage (Herskovits; Sudarkasa). While this approach has much merit, a limitation of this approach is that not enough emphasis is placed on the impact of social class and economic factors on family characteristics or on the similarities of parental attitudes, behaviors, and involvement across different ethnic groups (Julian, McKenry & McKelvy, 43, 30-7).

More recently there has been a third approach emphasizing the role of social class in the determination of family structure and characteristics. The social class perspective has been criticized as minimizing the continued existence of systemic patterns of discrimination that consistently place African Americans at a disadvantage (Dodson 67-82). Membership in a minority group often precludes advancement in the academic and occupational arenas (Ogbu 234-50). Often African Americans are required to have more training than European Americans performing similar jobs and are likely to receive less pay for the similar positions (Dodson 67-82). In the face of discrimination in the workplace via inequitable compensation African Americans may rely upon familial support longer than European Americans. This results in an over-representation of Africans Americans in low-status categories in terms of income. Furthermore as class and status are not comparable
across racial lines, it is difficult to make comparisons between African Americans and European Americans with regard to class and status.

Ecological Perspective

Despite advances towards depathologizing African American families in the literature, many works still rely upon simple, linear relationships between family structure and developmental outcomes for African American youths. As suggested by Luster and McAdoo (65), an ecological approach emphasizing the interrelationship between family structure, environmental factors such as neighborhood conditions and family income, and relationships within the family more adequately address the complexities of adolescent development. The work of Bronfenbrenner & Ceci, suggests that an ecological model best predicts developmental outcomes for children. They characterize contextual influences within a four-dimensional framework consisting of the Macro, Exo, Meso, and Microsystems. The macrosystem pertains to the larger cultural/social structures surrounding children. This consists of values, beliefs, attitudes, and social institutions. Luster & McAdoo (1080-94) suggest that African American children by virtue of belonging to a subculture (a culture within a culture) may have difficulty adjusting to norms and expectations associated with the majority culture. In addition measurements of developmental outcomes, including academic performance, may not account for variations related to membership in a social group with values, beliefs, and expectations differing from those of the majority culture. Included in the external environmental influences are factors such as poverty and neighborhood conditions.

Ogbu (234-50) suggests that European American children may experience elevation in status based upon income and academic achievement. However African American children by virtue of belonging to a racial minority remain affixed to minority status associated with skin color. Despite advances in education and income members of racial minority groups may experience stigmatization, oppression, and discrimination relative to minority status. In such cases a sense of hopelessness ensues causing a lack of participation by members of racial
minority groups. This lack of involvement and participation can contribute to the academic failure of African American adolescents.

The exosystem, the second level of the Bronfenbrenner/Ceci model, pertains to indirect environmental influences which may affect developmental outcomes. It has been noted by Luster & McAdoo (1080-94) and others that parental occupation, stress associated with occupation, and/or lack of sufficient employment can adversely affect parental relationships with children thereby altering developmental outcomes for children.

Interactions across settings are the domain of the mesosystem (Bronfenbrenner & Ceci 101). African American children may experience significant difficulty in a school setting particularly if the school has expectations which greatly differ from expectations within the home setting. Children may have to adopt different communication and interactional styles to be successful in the school setting. The content of academic material may be less meaningful to African American children as texts do not make meaningful connections with children from African American backgrounds (Obgu134-50). Without meaningful connections it is perhaps a reasonable expectation that some African American may not excel in the classroom but have great success within the family and other African American structures having expectations and connections meaningful to the child and the family. When children experience failure in school they may also experience difficulties within in the home related to parental concerns regarding education. Likewise familial distress can lead to academic failure. Thus how one setting impacts upon another can affect outcomes for children.

Lastly, the microsystem pertains to individual settings in which the child is a participant. The home and the school are separate settings which may or may not have conflicting expectations. As suggested by J. McAdoo (183-97), African American children are primarily socialized within the home environment. It is the task of parents to educate children on racism and other subtle nuances which may adversely affect developmental outcomes. When this level of parental support is absent, children may have difficulty adjusting to multiple set-
tings as evidenced by academic failure.

It is important to acknowledge that multi-dimensional contextual (environmental) factors have an impact on academic achievement and developmental outcomes of children and youth (Bronfenbrenner & Ceci; Huston, McLoyd & Coll; Luster & McAdoo). The literature identified family structure, maternal characteristics, the internal home environment, and the external (community) environment (Huston, McLoyd & Coll) as factors predictive of academic performance in adolescents. Difficulty related to either of the afore-mentioned areas may adversely impact academic success for children.

**Maternal Characteristics**

Maternal characteristics have been identified as important determinants of the academic achievement of youth. Luster & McAdoo examined maternal characteristics regarding the age of mother at first birth, maternal IQ, and maternal level of education in terms of academic achievement in African American youth. They found that children born to young mothers had lower academic performance and were more likely to live in poverty and belong to a single-parent family than children whose mothers were older when the children were born. Furthermore, mothers who give birth at an early age had lower incomes and academic achievements and lower IQs than mothers who were older at the birth of children. Thus maternal characteristics, particularly maternal age at first birth and maternal educational attainment, were predictive of academic performance of adolescents (Furstenberg). However they note that in later life, adolescents with sufficient parental support are able to overcome childhood disadvantages.

A criticism of some studies is that single-parent families were overly represented and as well as African American mothers in many of the samples thereby biasing against these groups. In addition many of the participants were young mothers. The extent to which these results can be generalized to the population beyond the samples is limited. Nevertheless, the importance of considering maternal characteristics as predictors of adolescent academic achievement should not be dismissed. Diversifying groups studied might yield more valid findings.
Family Structure

From an ecological perspective family structure has been identified as important to academic achievement of youth. Maternal marital status has been associated with the developmental outcomes of youth including academic achievement (Hetherington 208-34). Children from single-parent families experience greater poverty and have lower academic achievement when compared with children from two-parent families (Billingsley; Furstenberg 142-51). In addition family size may also influence academic achievement of adolescents. Adolescents from single-parent families with several children have lower academic achievement than adolescents from single-parent and two-parent families with few children. However several writers have noted that the over-reliance on single-parent status when researching African Americans has created a negative, stereotypical perception of the African American family (Boyd-Franklin; Billingsley). This approach has been challenged leading to investigations of African American families that include two-parent families as well.

Home Environment

There has also been increasing recognition of the impact of the home environment on the developmental outcomes of children (Bronfenbrenner 101). Several studies have shown a significant relationship between home environment and the academic achievement of children (Luster & Dubow 19; Luster & Boger 55). In evaluating the home environment, many studies have relied upon the Home Inventory. This instrument requires the evaluator to observe the amount of cognitive stimulation and emotional support found within a particular family (Luster & McAdoo 65). Findings indicate that children from families with positive home environments have greater academic achievement than children from families with negative home environments. Also, two-parent families tend to have more positive home environments than single-parent families, and African American families tend to have less positive home environments than European American families. (Luster & Dubow 475-94).

Aside from observer bias the use of this instrument with African American families has been criticized as it may lack
sensitivity to the cultural uniqueness of African American families. Two-parent families may have a greater sharing of responsibility for child rearing resulting in elevations of Home Inventory scores for two-parent families when compared to single-parent families. Also, with adolescents, perceptions of relationships with parents may provide additional support for the importance of the home environment in terms of academic achievement.

**Neighborhood Conditions:**

From a community perspective family income and neighborhood conditions can also influence the academic achievement of adolescents. And they are strongly correlated since income often determines the neighborhood in which a family resides (Furstenberg 142-51). Duncan et. al. (65) found that while neighborhood conditions and family income were significant predictors of academic achievement and behavior problems, family income was the more powerful of the two. Children from low-income families resided in neighborhoods perceived as negative by their mothers and had lower academic achievement than children from high-income families (Luster & McAdoo 1080-94). This is consistent with Mickelson & Smith (289-303).

Mann suggests that families with few social supports tend to have children with poor academic performance. Both middle and low-income African American families value achieve. A contrast is that many low-income African American families have few social and community support whereas middle-income African American families tend to have great social and familial support. Tatum (214-33) noted that middle and upper-income African American families may experience isolation based upon race. When affluent African Americans reside in predominantly white neighborhoods, they may not connect with their immediate environments; therefore, the social aspects of the neighborhood in addition to the actual physical conditions of the neighborhood can affect academic performance.

Another consideration is the quality of school in African American communities (Ogbru 234-50). Many African Americans reside in low-income communities with educational resources inferior to those available to affluent communities.
In such instances African American children have less success than their European American counterparts.

Given the strong correlation between family income and academic achievement, it is predictable that African American children in poverty would have lower academic achievement when compared to other children. However, of concern is whether like children are being compared. If low-income children are compared to children with greater familial resources, bias in favor of more affluent children would confound the findings. Therefore, in an effort to reduce bias in terms of income, it is necessary to study both low and high-income African Americans, otherwise preservation of existing stereotypes of African American and low academic achievement continues.

Collectively these studies point to the need to examine several contextual factors that could be associated with the academic achievements of African American and European American adolescents. The contextual factors include, but are not necessarily limited to, maternal characteristics, family structure, home environment, and community conditions. While other factors such as adolescent characteristics, parenting style, age and gender of the adolescent are contributing factors in academic achievement, it is the aim here to study various contextual factors beyond the adolescent which may influence academic achievement.

The introduction of ecological models has improved the study of children and families (Bronfenbrenner & Ceci 568-86); however few studies address ecological validity: the extent that comparisons can be made across groups. Luster and McAdoo (1080-94) studied African American children in an effort to apply an ecological model. Their study challenged the monolithic view of the cultural ethnocentric school that suggested that all African American children are at risk of academic failure and demonstrated the diversity within the African American culture and that in the absence of poverty African American children have academic achievement within and/or above the average range.

In an effort to expand the work of Luster and McAdoo and others this study examines the ecological model and its application to African American adolescents as well as measuring the extent to which the findings can be generalized across eth-
nic groups.

**Diversimilarity**

The limitations of the Cultural Ethnocentric, Cultural Relativity and Ecological models identified above, provide impetus for the development of a new paradigm, the Diversimilarity Approach. The Diversimilarity approach is characterized by a systematic search for and emphasis on both the differences and similarities between and among African American, European American, and other ethnic groups. Several researchers from different perspectives have laid the foundations for this approach. Luster and McAdoo (1080-94) point out that research on African American children and families tends to focus on problems and therefore has contributed to continued stereotyping of African American children. To advance the field, they suggest examining how the contexts of African American children rated highly on cognitive and academic competence differ from children experiencing problems. Crosbie-Burnett & Lewis (43), suggest that European Americans experiencing post-divorce family circumstances would be well served if they adopted similar strategies and coping mechanisms that many African American families have developed over the years.

This article uses the Diversimilarity perspective to study several contextual factors associated with academic achievement of African American and European American adolescents. The primary question raised in this study is: What are the similar and different factors that contribute to the success or failure of both African and European American adolescents? This study will examine the academic achievement of African American and European American children using the Diversimilarity approach. The Diversimilarity approach emphasizes the need to focus on both differences and similarities among and between culturally diverse individuals. We expect that for African American and for European American children there will be some similar and some different contextual factors that will contribute to academic achievement and cognitive competence. Given improvements in technology and increased exchanges between ethnic groups, it is imperative that research move beyond recognition of diversity. Adequate
understanding of similarities can lead to effective identification and remediation of social phenomena affecting several groups.

Methodology

Based upon the review of the literature, maternal characteristics, family structure, home environment, and neighborhood conditions can impact academic performance in adolescent children. The hypotheses in this study address the issues of similarity and difference of the impact of these factors for African American and European American adolescents.

Hypotheses

1. There will be no difference in the impact of maternal characteristics on academic performance for African American and European American adolescents.

2. There will be no differences in the impact of family structure on the academic performance of American and European American adolescents.

3. There will be no difference in the impact of home environment on the academic performance of African American and European American adolescents.

4. There will be no difference in the impact of neighborhood conditions on the Academic performance of African American and European American adolescents.

Research Design

This is a cross-sectional study involving secondary analyses of data from the National Longitudinal Survey of Youth (NLSY). Hierarchical multiple regression was used to examine the relationship between academic performance and contextual features associated with academic performance.

Sample

The sample for this study is selected from the National Longitudinal Study of Youth (NLSY). The NLSY began in 1979.
with a sample of approximately 6,282 women ranging from age 14 to 21. Data has been collected on the children of these women every two years and on the mothers annually. The current sample is comprised of 6,266 adolescents and their mothers from the 1992 assessment period (See Table 1). Of the 6,266 children, 854 are between the ages of 13 and 17. Of the 854 adolescents, 666 are African American and European American. For this study, the 666 African American and European American children are used. 400 of the children are African American and 266 are European American. Approximately 51% of the children were male and 49% were female. The sample of mothers used in this study were 639: 380 African American and 259 European American. The majority of the subjects reside in urban areas. This sample is used to maintain consistency between this study and the Luster and McAdoo study (1994).

Variables

Academic Performance:

The dependent variable for this study, academic achievement, is measured with four achievement tests: The “Reading Recognition”, “Reading Comprehension”, and “Math” portions of the Peabody Individual Achievement Test and the Peabody Picture Vocabulary Test. Each has a standardized mean of 100 and a standard deviation of 15.

Maternal Characteristics:

Three variables, age of first birth, maternal education level and maternal IQ are used to reflect maternal characteristics. Maternal IQ was measured with the “Armed Forces Qualifying Test” which has a maximum score of 1030 and assesses overall academic ability required for successful completion of basic military training.

Family Structure:

Two variables, marital status and number of children, are used to reflect the family configuration.

Home Environment:

The home environment is reflected by three variables, the
perceived home environment and adolescent relationships with the father and mother. Home environment is measured with a 39-item observational tool used to measure the overall cognitive stimulation and emotional support found within the home. To determine adolescent relationships with mothers and fathers, an index was developed based upon adolescent responses to three items pertaining to their relationships with their parents. The items assess parental time spent with adolescents and closeness adolescents feel towards each parent.

Data Analysis

On the first step of the hierarchical multiple regression variables pertaining to maternal characteristics are entered into the model; on the second step family structure variables are entered; on the third step home environmental variables are entered into the model. Finally neighborhood condition variables are entered into the model. This format was selected to allow consistency between this study and the previous study by Luster & McAdoo.

Results

As a first step in our analysis we assessed the relationship between the independent variables in the study using a correlation matrix. This is reported in Table 2. The correlations among the predictors generally ranged from low to moderate in magnitude lending additional support for a ecological investigation of the data.

Next we examined the relationship between the predictor variables and the outcome variables for the combined sample of African American and European American adolescents. The outcome variables are the scores on Peabody Individual Achievement Test for math, reading comprehension and reading recognition scores, and scores on the Peabody Picture Vocabulary Test. Results of the hierarchical multiple regression analysis are presented in Table 3.

All four regression equations were significant at the p<.01 level. The adjusted R squares for the four equations were .241 (PIATM); .254 (PIATRC); .225 (PIATRR), and .347 (PPVT). The results of the regression equation indicate that for the combined sample, maternal IQ, the home environment, and
neighborhood conditions were the major determinants of the academic achievement of adolescent youth.

Consistent with the Diversimilarity Approach we developed regression models to separately examine the relationships between the various contextual factors and academic performance. Specifically we examined whether similar contextual factors and different contextual factors are associated with the academic performance of African American and European American adolescents. The results are presented in Table 4. All eight regression equations were significant at the $p<.01$ level, with adjusted $R^2$-squares ranging from .143 (PIATM Math for African American adolescents) to .321 (PPVT for European American adolescents).

The results indicated that maternal characteristics played an important role in the academic performance of both African Americans and European Americans. In particular the IQ of both African American and European American mothers (measured by the AFQT.) was significantly related to the level of academic achievement of adolescents. Also the maternal age at first birth appeared not to influence the academic achievement of adolescents. However maternal education level appeared more significant for African American adolescents than for European American adolescents. Thus the hypothesis pertaining to maternal characteristics and academic performance was rejected.

An interesting result of this study is that for both African American and European American adolescents (Table 4) family structure was significant in their academic achievement. This is very interesting in the light of the body of literature that attributes the low level of academic achievement of some African American youths to the lack of father figures and type of family structures. The absence of differences pertaining to family structure and academic performance allowed the hypothesis to be accepted.

With regard to impact of the home environment on academic performance parental relationships with adolescents was not significant. However cognitive stimulation and emotional support were significant for African American adolescents in contrast to European American adolescents. The hypothesis of no difference was rejected.
Finally, parental income was not a significant factor with regard to adolescent academic performance. Neighborhood condition was significant for European American adolescents. Therefore, the hypothesis was rejected.

Discussion

The current student supports the Furstenberg assumption that adolescents from disadvantaged backgrounds tend to have later success provided they have sufficient parental support in overcoming barriers to academic success. In addition this study suggests that factors such as poverty, neighborhood conditions, and family structure may be more important in early childhood than in adolescence.

Building on the Luster & McAdoo study and also other studies that have advocated the need to study inter-cultural research by looking at both similarities and differences, this study adopts the Diversimilarity Approach. Specifically it tries to identify contextual factors that are similar and those that are different when we look at the academic performance of African American and European American. From a similarity perspective this study finds that the maternal IQ significantly impacts the academic achievements of both African American and European American adolescents. Family structure and relationships to mother and father are not significantly related to the academic achievement of adolescents. From a difference perspective, this study finds that the academic achievement of African Americans was affected by the level of maternal education and the home environment while European American youth were impacted by neighborhood conditions.

One explanation of this difference may be the role of African American parents. As African Americans have a sub-culture differing from European Americans, negotiation of both cultures and development of social and academic skills may be integral components of African American parenting. Because European American adolescents more closely identify with the majority culture, they may rely upon peers for socialization to a greater extent than African American adolescents. Likewise, African American adolescents may rely upon family for socialization rather than upon peers. This may be particularly true for high-income African American families. As suggested by
Tatum (214-33), social class continues to be a struggle for middle and high income African Americans. African American families from these groups may become isolated because they reside in wealthier communities with fewer African American peers. Adolescents from these families may be isolated from other African American adolescents resulting in reliance upon family for support and guidance.

Academic excellence may more readily equate with improved income and social status for European American adolescents than for African American adolescents in later life. The results indicate that neighborhood conditions are important for European American adolescents with regard to academic performance. These results may be indicative of the relationship these adolescents observe between their current academic endeavors and later life status. As no such connection between community and school is present with the African American adolescents, academic achievement may be seen as a less viable avenue for later life successes. Inequitable earning capacity based upon race is a stark reality for African American adolescents. Therefore familial support remains important for African American adolescents and perhaps adults as a coping mechanism for status as a member of a racial minority. Education for European American adolescents may be an avenue for improved status, but for African American adolescents education may be a means of escape from low-income status but not necessarily from low-social status.

Several important implications arise from this study. First, this study specifically advocates the need to identify similar and different contextual factors that impact the academic achievement of other African American and European American adolescents. On a more general level, this study calls for a more systematic focus on the cultural and demographic similarities and differences among people from different ethnic backgrounds; paying attention to similarities may help minimize the often negative stereotyping of African American that some researchers have; paying attention to the differences may help highlight the cultural and historic differences.

In past research the tendency has been not to take into account the strengths of the survival and coping mechanisms associated with the specific behaviors of African American fami-
The cultural relativists approach plays an important role in shifting research from the pathological and deficient approach to identify the strengths associated with the African American families (Alston & Turner 378-82; Scala 184-94). The cultural relativists, however, tend to stress the unique and inherently African structures of the African American families. In the process there is a negation of the similarities of behaviors that are associated with families of different ethnic backgrounds being impacted by the same ecological environment. As Crosbie-Burnett & Lewis (43) indicate, as European American families undergo an increase in post divorce families, they find themselves increasingly struggling with many of the same issues that African American families have had to struggle with for centuries, and child-focused definition of the family and the use of similar coping mechanism and strategies of African American families can be helpful to European American families facing the same issues.

The social deterministic approach emphasizes the impact of the social environment in the determination of the family behavioral patterns. The social determinist would stress that if one controls for social conditions such as poverty, there would be basically no differences between the families of the different ethnic groups. Such an approach however downplays the persistence of racism and its very systemic nature that places African Americans, no matter their social class or income, at a disadvantage. The social deterministic approach also fails to account for several factors such as the impact of white privilege and the fact that a disproportionate number of African American families live below the poverty line.

The limitations of the three approaches identified above can be mitigated by the adoption of the Diversimilarity Approach. By focusing on the differences, the different historical and current differences that the different ethnic groups have can be accounted for. By valuing the difference, such an approach would see the different familial patterns of different ethnic groups not from the standard of the dominant ethnic group's standards. There would be an appreciation of the strengths associated with the different styles and methods associated with the different ethnic groups. By focusing on the similarities, there would be an appropriate recognition of the impact of
Conclusion

A limitation of this study is the absence of data pertaining to fathers. It would be helpful to determine, beyond the absence or presence of a father in the home, the impact of paternal characteristics on academic performance in adolescents. Of great importance is the study of the relationship between African American fathers and their male children. While this study did not find that family structure or adolescent relationships with parents significant in terms of academic performance whether or not fathers impart valuable support and encouragement in academic endeavors remains an important avenue for future study. It would be helpful to determine beyond the absence or presence of a father in the home the impact of paternal characteristics on academic performance in adolescents. Of similar importance is the study of the relationship between African American fathers and their male children. Some have argued that the absence of meaningful, male role models has been the demise of the African American community. This study challenges that assumption in that support from rather than the presence of parental figures is indicative of later success for African American adolescents.

The Diversimilarity Approach, a systematic analysis of the differences and similarities of ethnically diverse groups, is applied to the study of the contextual factors associated with the academic achievement of African American and European American adolescents. The maternal IQ appears to play an important role in the academic performance of both African American and European American adolescents. There are important differences, with the home environment and maternal educational level appearing to affect the academic performance of African American adolescents while the neighborhood conditions appear to impact the academic performance of European American adolescents. The Diversimilarity Approach is suggested for both social care providers and researchers as a way to alleviate stereotyping and highlight the cultural distinctiveness of ethnically diverse individuals.
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