Stereotypes of achievement striving among early adolescents

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Abstract. We conducted two studies to examine the influence of achievement-related cultural stereotypes among early adolescents. In Study 1 male and female African–American junior high school students ($N = 62$) read hypothetical descriptions of students who displayed high or low levels of achievement striving and school engagement. Their task was to select one photograph that they believed matched each hypothetical description from a set of photos of unknown junior high school students of diverse ethnicities and both genders. We replicated our procedures in Study 2 with a more ethnically diverse sample of African–American, Latino, and Anglo junior high school students ($N = 197$). Results indicated that all adolescents most frequently selected photos of ethnic minority males for scenarios of academic disengagement, consistent with cultural stereotypes of these young men. Photos of females across all ethnicities were selected most frequently for scenarios of achievement strivings. Findings are discussed in terms of the need for greater support for minority males in school settings and the potential impact of school programs on the attitudes and behaviors of students.

1. Introduction

A series of classic studies by Kenneth and Mamie Clark foreshadowed both the merit and the necessity of studying perceptions of ethnic minorities among both ethnic minority and White children (Clark & Clark, 1939, 1940, 1947). A substantial and growing body of literature now challenges but cannot entirely refute their conclusions of White-preference and negative self-image among Black children (for reviews see Brand, Ruiz, & Padilla, 1974; Aboud, 1988). Importantly, the Clarks' work has served as the foundation for a broad range of inquiry into perceptions of ethnicity among ethnic minority children.

Among the more prominent developments in the study of children's perceptions of ethnicity has been an increased interest in children's understanding and use of racial and ethnic stereotypes. In the 1920s the journalist Walter Lippman introduced stereotypes as scientific constructs when he defined them as 'pictures in our heads' (Lippman, 1922), where the pictures refer to shared beliefs about the members of

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particular groups. We similarly define stereotypes here as mental representations of the characteristics of a particular social or cultural group that are shared among the members of a society (Stangor & Schaller, 1996). This definition corresponds to social or cultural, as opposed to individual, stereotypes (Tajfel, 1981). The individual or cognitive approach in stereotype research (e.g., Hamilton & Trolier, 1986) has examined the process of stereotype formation, storage, retrieval, and change in individuals. However, the study of social or cultural stereotypes seeks to understand the publicly shared content of stereotypes as one form of social knowledge. This research tradition also examines social behavior, given the consistent empirical relationship between an individual's social knowledge and social behavior (Stroebe & Insko, 1989; Yuill, 1993).

1.1. ETHNIC MINORITY CULTURAL STEREOTYPES AND ACHIEVEMENT BEHAVIOR

Examining students' understanding and use of cultural stereotypes may shed light on the complex and seemingly intractable problem of academic underachievement (Irvine, 1990) among ethnic minority youth. Academic underachievement persists among African–American and Latino students across all geographical and social categories in the United States (University of California, Outreach Task Force, 1997). Thus, we must look beyond the obvious inequities in educational and economic opportunities that confront ethnic minorities (Oakes, 1985; Fine, 1991). One line of inquiry in educational research has been investigations into the psychological and achievement-related consequences of membership in a marginalized social group.

Achievement-related behaviors represent a particular set of social behaviors. They are most often visible in large, organized, and regulated social contexts (e.g., schools) that have demonstrable social networks and hierarchies of peer groups (e.g., Eckart, 1989; Peshkin, 1991). Thus, it is not unreasonable to expect achievement related behaviors (one form of social behavior) to be quite vulnerable to the influences of cultural stereotypes (one type of social knowledge). In multiethnic countries, cultural stereotypes of marginalized groups may have quite negative consequences.

1.1.1. *Stereotype Content and Availability*

Cultural stereotypes of African–Americans, particularly of young males, are typically scurrilous (e.g., Niemann et al., 1994; Devine & Elliott, 1995; Krueger, 1996). Depictions of ignorance, laziness, and violence have their genesis in this country's historical attempts to rationalize slavery and state-sanctioned racial terrorism (Thomas, 1997). Although many African–American youth are quite successful in school and work hard in the process (Jones-Wilson, 1990; Sizemore, 1990), the modern stereotypes of low intelligence, lack of achievement orientation, and antisocial behavior persist.

Equally derogatory cultural stereotypes represent Latinos as illegal immigrants who prefer to work at menial jobs, driving down wages while driving up the cost of public social services (e.g., Kao, 2000). Similar to African–Americans, young Latino males in particular are perceived as unintelligent, extremely violent and antisocial, with little personal ambition, (Cowan, Martinez, & Mendiola, 1997; Neimann, Pollack, Rogers, & O'Conner, 1998). The reality of high academic achievement among some Latinos (Ocampo, 1991) is simply ignored.

Multiple social mechanisms transmit and reinforce these disparaging cultural stereotypes. Perhaps chief among them are the mass media (e.g., television, films, and newspapers) (Stangor & Schaller, 1996), which introduced the image of the violent, uncontrollable young African–American man in D. W. Griffith's infamous film 'Birth of a Nation'. This stereotype has been updated to the extremely violent (and popular) 'gangsta' identity in films such as 'Boyz in the Hood' (Bogle, 1994). The modern media image portrays young African–American and Latino men as criminals and gang members who use automatic weapons to kill their enemies and who denigrate achievement striving and educational attainment. These negative images may become particularly salient for ethnic minority youth, who are the most frequent consumers of popular media (Blosser, 1988; Kao, 2000).

1.1.2. Stereotype Endorsement

Cultural stereotypes are both intuitively and empirically relevant to academic achievement among ethnic minority students, given the inimical content of stereotypes of African–Americans and Latinos. A body of research on the content of cultural stereotypes demonstrates that African–American adults internalize some of the more pejorative socially shared beliefs about their own group (Allport, 1954; Clark, 1965; Neimann, O'Connor, & McClorie, 1998). Further, making racial stereotypes salient in an academic context is sufficient to significantly depress the achievement of African–American college students (Steele, 1997). This literature seems to suggest that cultural stereotypes may have a negative influence on achievement motivation in childhood and adolescence.

However, the study of ethnic minority children's own stereotype use is in its infancy and largely limited to African–American children. The few studies conducted suggest that children as young as preschool have internalized derogatory stereotypes. African–American children associate darker skin color with negative behaviors and characteristics; this finding has been replicated with preschoolers (Williams & Moreland, 1976; Ramsey, 1987), school-age children (Porter, 1991; Averhart & Bigler, 1997), and adolescents (Anderson & Cromwell, 1977). In contrast, when presented with characteristics other than skin color (e.g., adjective checklists), African–American children often attribute positive characteristics to their own group (Anderson & Cromwell, 1977; Doyle, Beaudet, & Aboud, 1988; Aboud & Doyle, 1995; Averhart & Bigler, 1997), and this pattern increases with age (Judd et al., 1995). Unsurprisingly, African–American children' stereotypes of

their own group comprise both positive and negative elements, although stereo-
types may grow more positive across development.

1.2. SOCIAL IDENTITY THEORY AND CHILDREN'S STEREOTYPES

Social identity theory (Tajfel & Turner, 1986) provides contrasting predictions for
the influence of cultural stereotypes on group members. The theory fundamentally
proposes that social groups are associated with positive or negative evaluations, and
the self-regard of individual ingroup members is based on comparisons with and
explicit differentiation from relevant outgroups. Because people strive to maintain
a positive self-regard, members of a given ingroup will be motivated to perceive
themselves as superior to relevant outgroups. Social identity theory would argue
that members of culturally or socially defined groups should hold positive ste-
reotypes of their own group and negative stereotypes of relevant outgroups. Such
ingroup bias confers positive stature on groups and their members by derogating
the relevant outgroup (Sherman, Hamilton, & Lewis, 1999).

African–American children's previously discussed ingroup stereotypes do
not consistently display ingroup bias; similarly their perceptions of Whites are not
always consistent with the predicted outgroup derogation (Anderson &
Cromwell, 1977; Doyle, Beaudet, & Aboud, 1988; Averhart & Bigler, 1997).
Younger African–American children generally hold stereotypes of Whites that are
more positive than those for their own group. Among older children, stereotypes of
Whites contain both positive and negative elements, similar to stereotypes of their
own groups. Only studies among college students have found clear biases among
African–American youth, with stereotypes that are positive for African–Americans
and more negative for Whites (Judd et al., 1995).

Although there is scant evidence for an ingroup bias among African–American
children in the literature reviewed previously, White children hold positive views
of their own group across all stages of development, consistent with social identity
theory (Ramsey & Meyers, 1990; Bigler & Liben, 1993; Doyle & Aboud, 1995;
Black-Gutman & Hickson, 1996). White children also perceive ethnic minorities
negatively, as social identity theory predicts, and these positive and negative per-
ceptions have been found in the US as well as other parts of the world (Rutland,
1999; Augoustinos & Rosewarne, 2001). Negative perceptions of ethnic minorities
sometimes decline with the age of the perceiver (Aboud & Skeery, 1983; Doyle,
Beaudet, & Aboud, 1988; Bigler & Liben, 1993), but sometimes increase (Rutland,
1999). Recent work with White American college students revealed ingroup ste-
reotypes that were no more positive than stereotypes of African–Americans (Judd
et al., 1995).

1.3. THE CURRENT STUDY

In the studies reported here, we specifically examined the use of ethnic stereo-
types by both ingroup and outgroup members. We devised a methodology that

we believed would be meaningful to adolescent respondents and that would not be vulnerable to the social desirability limitations of adjective checklists or free response formats. The research activities, introduced as a study of 'First Impressions', presented middle school students with hypothetical scenarios of students who were high or low in achievement strivings. Using a set of photos of unknown adolescents, our participants selected one photo that they thought best described each hypothetical student. The stimulus photos varied the ethnicity and gender of the unknown adolescent; all other photo characteristics (e.g., hairstyle, jewelry, and clothing) were controlled. Thus respondents were required to make their best guess about behaviors of these hypothetical students in the absence of any individuating information – the classic use of stereotypes (Stangor & Schallor, 1996). In this way we were able to examine whether middle school students associated positive or negative achievement-related stereotypes with boys and girls of various ethnicities.

Our first study focused on African–American students. We hypothesized that these adolescents would not associate (i.e., select photos of) other African–American students with high achievement strivings, based on the influence of negative cultural stereotypes. Rather, these African–American adolescents would more frequently associate other African–Americans with beliefs and actions consistent with low achievement strivings. However, social identity theory would predict the opposite pattern, that is, association of the ingroup with positive characteristics or high achievement striving. Further, based on findings from our previous research (Graham, Taylor, & Hudley, 1998) in which adolescents associated their own female classmates with high achievement striving, we predicted that the pattern of associations would be influenced by gender as well as ethnicity of the pictured students. We expected scenarios describing high achievement strivings to elicit disproportionate selections of photos of girls and scenarios of low achievement strivings to elicit disproportionate selections of photos of boys.

2. Study 1

2.1. METHOD

2.1.1. *Participants*

Participants ($N = 62$) were African–American adolescents enrolled in the seventh and eighth grades (age $M = 13.5$) in an urban public middle school in southern California. The school enrolled 90% African–American students and 10% Latino. Approximately 63% of the student body qualified for the federal free and reduced price lunch program at this school, and two-thirds of the students were drawn from the surrounding lower-middle class community, whose residents were 87% African–American and 13% Latino. Based on these indicators, these students could be classified as a mix of lower-middle and lower SES.

Adolescents comprised a random sample, stratified by GPA to ensure a balanced, representative sample across a broad range of academic achievement levels.

Students attaining a GPA of 3.2 or better were eligible to be selected as high achievers (35%). Those with a GPA between 2.9 and 2.2 were eligible as medium achievers (31%), and those with a GPA below 2.0 were eligible as low achievers (34%). As well, the sample was balanced by gender (47% female and 53% male). All adolescents were fully proficient in English, of average intelligence, and none were receiving special education services at the time of the study. Informed parental consent was obtained for all students prior to their participation in the study activities.

2.1.2. *Procedures*

Adolescents were seen in groups of 10–15 students outside of the regular classroom during the school day. The experimenters, three African–American females, introduced the task as a study of 'First Impressions' with the following instructions:

> "Many times people form opinions, good or bad, about others after meeting or seeing them only once, and before knowing very much about them. We call these opinions first impressions. For example, you might form first impressions of a new teacher on the first day of school before classes begin, or of new neighbors on the first day they move in next door to you. In this survey, we are interested in how students your age form first impressions about other kids they do not know. We will show you sets of pictures of boys and girls your age whom you do not know. You will also be presented with short descriptions that could fit any of the kids in the pictures. Your task is to form a first impression – that is, pick the student who you think best fits the description".

One experimenter then read aloud six short, hypothetical scenarios, each describing a student who displayed a specific set of attitudes or behaviors.

Four of the scenarios presented attitudes and behaviors consistent with achievement striving; two described high levels and two described low levels of achievement striving. One scenario portrayed high achievement strivings in the proximal school context as follows:

> 'This is a student who does very well in school. The person gets good grades, works hard on class assignments, and can often be seen in the library doing schoolwork. This is someone who pays attention in class and participates in class discussions'.

The other high achievement scenario focused on planning for a more distal goal, describing a student who enrolled in challenging classes, 'plans to get a college degree', and someday attain a professional career.

The two scenarios of low achievement striving followed a similar pattern. One scenario focused on the proximal school context by describing a student who fooled around in class, ignored homework assignments, sometimes cut classes, and did not carry books. The other low achievement striving scenario included more distal

goals by portraying a student who had no plans for further education or future employment, did not care about grades or schoolwork, and so 'does just enough to get by' in school. Two filler scenarios, not analyzed here, were unrelated to academic achievement. No reference was made to the hypothetical student's gender in any of the six scenarios.

After each scenario was read, participants were shown a different set of 12 color photographs (3×5 inch) of junior high school students, each identified only by a number. Each set contained photos of two boys and two girls each of Latino, African–American, and Anglo ancestry. The photos were obtained in an entirely different city in southern California, where junior high school students volunteered for the task and obtained informed parental consent. Photographs were portrait images of adolescents' head and shoulders only, all taken on a similar backdrop. All volunteers were photographed in plain T-shirts, and no salient variations in students (e.g., tattoos, unusual hairstyles) were visible.

Each set of 12 photos was mounted on heavy poster board and adolescents were instructed to think of the boards as pages from a middle school yearbook. There were six different photo sets, one to correspond to each of the six scenarios. The photo set-scenario pairing was randomized for each participant. On each picture board the 12 photos (two African–American boys and two African–American girls, two Latinos and two Latinas, two Anglo boys and two Anglo girls) were randomly arranged such that the two same ethnicity/same gender photos were never mounted horizontally next to one another.

Prior to data collection, an ethnically diverse panel of freshmen students at a major university in southern California ($N = 15$) rated the photos on physical attractiveness, using a scale of 1–5. Of the total pool of photos ($N = 41$), 63% received an average rating of '3'. The final pool of photos ($n = 34$) from which we constructed our stimulus materials all received mean ratings ranging between 3 and 4.

Participants were asked to select the actual student just described in the scenario, who attended another school, from the set of available photo choices. The adolescents privately recorded the number of the photograph that they felt best matched the scenario, using a separate page for each scenario. The entire procedure lasted about 20 min.

2.2. RESULTS AND DISCUSSION

2.2.1. *Analysis Strategy*

Our goal was to determine whether male and female African–American respondents disproportionately chose photos of peers who were the same ethnicity and gender or who were different. In the first stage of the analysis, we tested overall differences in photo choice separately for each gender with one-way chi-square tests to determine if some photo types were more likely than others to be selected (e.g., African–American female, Latino male). If significant, the chi-square was then followed by tests of significant differences between observed and expected

cell frequencies, using the z-statistic. Positive z scores indicate more observed than expected frequencies – that is, over-selecting a particular photo type relative to expected frequencies if choices were equally distributed among all photo types. Negative z scores document fewer observed than expected frequencies (i.e., under-selecting).

We conducted four preliminary analyses to assess the degree of association between the two high achievement striving and the two low achievement striving scenarios (proximal and distal), separately for each gender. This was done to determine if it would be appropriate to combine responses and conduct a single analysis for high achievement striving and another for low achievement striving. We computed the λ statistic of association (Goodman & Kruskal, 1954), which specifies the proportional reduction in error that is achieved when predicting the values of a variable by taking into consideration the values of a second variable. Values for λ range between 1 and 0. If λ is 1, the values of one variable perfectly predict the values of the second (or a 100% reduction in error) ; a λ of 0 indicates that values of one variable have no bearing on specifying the values of the second (or a 0% reduction in error). λ in the four scenario analyses, using the proximal scenario to predict categories of the distal scenario, ranged from .18 to .33, indicating 18 to 33% reduction in error (all p's $< .10$). As this represents reasonable consistency across story types, we present scenario responses aggregated by story type and analyzed separately within gender, beginning with high achievement scenarios.

2.2.2. *High Achievement Scenarios*

The top two panels of Figure 1 show the percentage choice of each photo type for the combined high achievement scenarios. Choices of African–American female respondents are displayed in the upper left panel, and choices of African–American male respondents are in the upper right panel. In each panel, the bars represent the photos as a function of the ethnicity of the pictured student. Black bars depict African–American photos, diagonal bars represent Latino photos, and white bars represent White photos. Bars on the left in each panel represent photos of females; bars on the right represent photos of males.

For both male and female respondents, the chi-square test was significant, indicating differential selection across the six photo types: for female respondents, $\chi^2(5) = 50.83$, $p < .001$; and for male respondents, $\chi^2(5) = 74.54$, $p < .001$.

Female respondents (Figure 1, left upper panel) more frequently selected photos of girls than of boys (93% v.s. 7% of choices) to describe someone who tries hard in school. The observed choice of photos of Anglo girls significantly exceeded frequencies that would be expected if choices were equally distributed across all photos: $z = 4.93$, $p < .001$. The z scores for selections of boys' photos were all negative and significant, revealing that girls significantly under-selected photos of African–American ($z = -2.79$, $p < .01$), Latino ($z = -2.79$, $p < .01$), and Anglo boys ($z = -2.47$ $p < .05$), relative to expected cell counts.
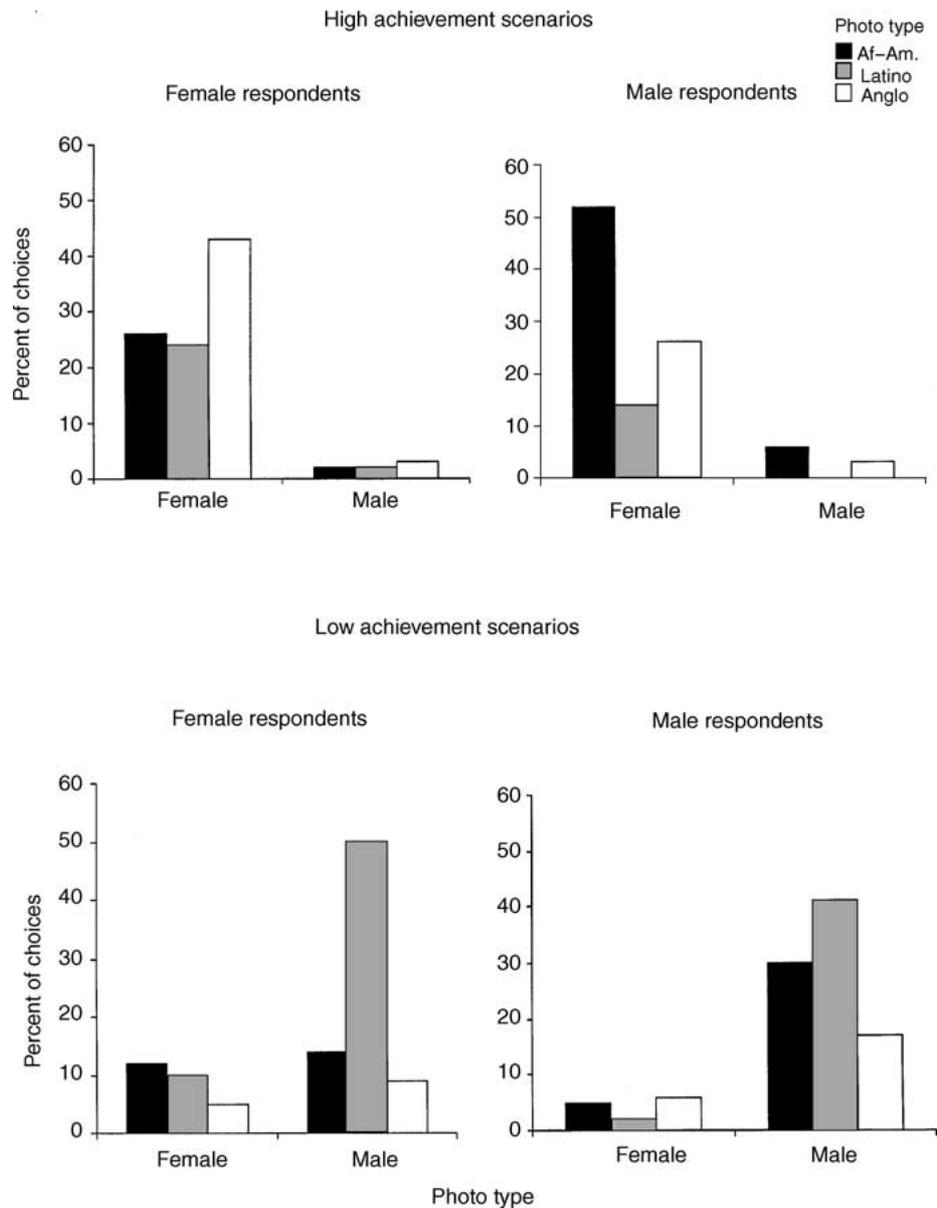
High achievement scenarios

Low achievement scenarios

Figure 1. Percent of photo choice as a function of gender and ethnicity of student photographs in high and low achievement scenarios: Study 1 (African–American adolescents).

Similar to female respondents, male respondents (right upper panel) more frequently selected photos of girls than of boys to match descriptions of academically engaged students (91% v.s. 9%). More than half of these choices went to African–American girls; only the selection of African–American girls significantly exceeded frequencies expected if choices were equally distributed across all photos: $z = 6.93$,

$p < .001$. As well, like female respondents, male respondents significantly under-selected boys as academically engaged in all ethnic groups ($z = -2.11$, -3.32, and -2.71, $p < .05$ for African–American, Latino, and Anglo males, respectively).

2.2.3. *Low Achievement Scenarios*

The bottom two panels of Figure 1 show the photo choice data for low achievement striving scenarios. Significant differences in photo selections were again evident for both female, $\chi^2(5) = 47.93$ and male, $\chi^2(5) = 50.00$ (both ps $p < .001$) respondents. But for this scenario, participants preferred boys' rather than girls' photos.

For female respondents (left lower panel), the significant chi-square was due to the over-selection of photos of Latino boys as an academically disengaged student: $z = 6.22$, $p < .001$. A full 50% of female respondents' choices were photos of Latino boys; the rates of selecting photos of African–American and Anglo boys were substantially less and did not differ from expected frequencies. The percentage choice of all photos of females was small; however, only photos of Anglo females were significantly under-selected: $z = -2.14$, $p < .05$.

Similarly for male respondents (right lower panel), the preferred choices were photos of Latino, followed by African–American and Anglo boys. These percentages revealed over-selection of photos of Latinos ($z = 4.82$, $p < .001$) and African–Americans ($z = 2.71$, $p < .01$) as academically disengaged, but not photos of Anglo boys ($z < 1$). Finally, only 13% of the total choices went to photos of girls, who were under-selected in all three ethnic groups ($z = -2.41$, -3.02, and -2.11, $p < .05$ for photos of African–American, Latina, and Anglo girls, respectively).

2.2.4. *Discussion*

These data provide partial support for our hypotheses based on the findings of Graham et al. (1998) and call into question predictions derived from social identity theory. As expected, high achievement strivings overall were much more associated with girls than with boys. Additionally, we documented that these adolescents selected photos of African–Americans for low rather than high achievement strivings. However, this effect was evident only for photos of boys, thus providing only mixed support for the idea that African–American youth do not associate achievement strivings with members of their ethnic group. Rather, we found a more complex interaction with gender, indicating that school disengagement was more associated with photos of ethnic minority boys. Female respondents strongly over-selected Latinos, and male respondents over-selected both Latino and Black boys. These findings are quite consistent with cultural stereotypes of ethnic minority boys.

These findings do not support in-group favoritism given that photos of Anglo girls in particular were over-selected by our female respondents for scenarios of high achievement strivings and under-selected for low achievement scenarios. As well, male respondents over-selected photos of African–American boys for scen-

arios of low achievement striving. The only evidence of out-group derogation can be found in the selection pattern for photos of Latinos; our respondents over-selected these photos given low achievement striving scenarios and under-selected photos of Latinos given high achievement scenarios. However, these results were true only for photos of boys; thus the data again are more aligned with cultural stereotype effects.

Our findings are consistent not only with the negative stereotypes of ethnic minority males but also with important features of students' experiences at school. Females consistently complete more years of secondary school than males – not just in the United States (US Census Bureau, 1996) but throughout the western industrialized world (Griffin, 2001). Further, teachers are typically female, 73% overall and 89% at the elementary level in the United States (NCES, 1997), providing greater numbers of feminine role models for school achievement. Given these mutually reinforcing pieces of social information, it is perhaps not surprising that our participants more often selected females rather than males for scenarios of high levels of achievement striving.

However, these data offer as many questions as answers. Our sample was limited to a single school in an ethnically homogeneous neighborhood. Thus, we were unable to examine the achievement-related perceptions of African–American youth in more ethnically diverse settings. As well, our sample did not allow us to examine stereotypes about achievement striving among other ethnic minority students and majority group students. We wanted to fill a gaping void in the literature by examining the self-stereotypes of other ethnic minorities, and we wondered how prevalent these strong gender effects on perceptions of achievement striving might be among youth of other ethnicities. To answer these questions, we replicated our research at two ethnically diverse schools located in highly diverse neighborhoods and included participants from the three ethnic backgrounds represented in the photos.

3. Study 2

3.1. METHOD

3.1.1. *Participants*

Participants ($N = 197$) were African–American, Latino, and Anglo adolescents enrolled in the seventh and eighth grades in two urban public middle schools in southern California. Neither of the two schools had served as the site for the previous study. School 1 enrolled students from a broad range of ethnic backgrounds (48% Latino, 36% African–American, 12% Anglo, and 4% Asian). Our recruited sample consisted of 41% African–American, 36% Latino, and 23% Anglo adolescents. School 2 included primarily Anglos (51%) and Latinos (41%) and a small proportion of African–Americans (8%). Our sample at that site contained 37% each of Anglo and Latino adolescents and 26% African–Americans. Students were drawn in comparable numbers from the two sites (n's $= 95$ and 102, respectively),

and the gender distribution across the two sites was approximately equal (44% male and 56% female). Overall, the adolescents at School 1 were significantly older than those at School 2 (13.7 v.s. 12.9) ($F[1,195] = 71.50$, $p < .001$); however, there were no systematic age differences by gender or ethnicity within each school. Based on indicators similar to those used in Study 1, adolescents attending both schools represented a range of middle to low SES.

Participants were again stratified by GPA to ensure a representative sample across academic achievement levels, using the same selection criteria employed in Study 1. The resulting sample was 39% high achievers, 35% medium achievers, and 26% low achievers, drawn equally from each site and from each ethnic group. All adolescents were fully fluent in English.

3.1.2. *Procedures*

The photo stimuli and the scenarios related to achievement were the same as those used in Study 1. As well, all procedures, including the pairing of photo set with scenario, were identical to those employed in Study 1. Data were collected by two female experimenters – one African–American and one Anglo.

3.2. RESULTS

We again conducted preliminary analyses separately for each ethnic-gender group of participants to assess the degree of association between responses within the two story types (i.e., high or low achievement striving). Twelve (two for each of six participant groups) λ statistics of association (Goodman & Kruskal, 1954) were generated; values ranged from .10 to .25 (10–25% reduction in error). Thus, we again aggregated responses across high achievement striving scenarios as well as across low achievement striving scenarios. Additional preliminary analyses of the full sample using logit log-linear techniques (Knoke & Burke, 1980) assessed possible differences in photo choice by school. Tests of the interactions of photo choice with the independent variables (gender, ethnicity, and school) revealed that none of the three-way interactions involving school (i.e., photo choice × school × gender and photo choice × school × ethnicity) significantly enhanced the fit of the log-linear model to the data. In addition, tests of all three-way effects for each scenario type, using the L^2 statistic, were not significant (all p's > .05). Thus, we collapsed the data across school.

3.2.1. *High Achievement Scenarios*

Figure 2 shows the photo choices for the combined high achievement scenarios. The top three panels display the data for female respondents in each of the three ethnic groups, and the bottom three panels show the choices of male respondents in each of the three ethnic groups. As in Study 1, the bars represent percentage choice as a function of gender and ethnicity of the selected photo.

All of the chi-square tests were significant, largely replicating the gender preferences that were documented in Study 1 (all χ^2 values greater than 40.0, $df = 5$,
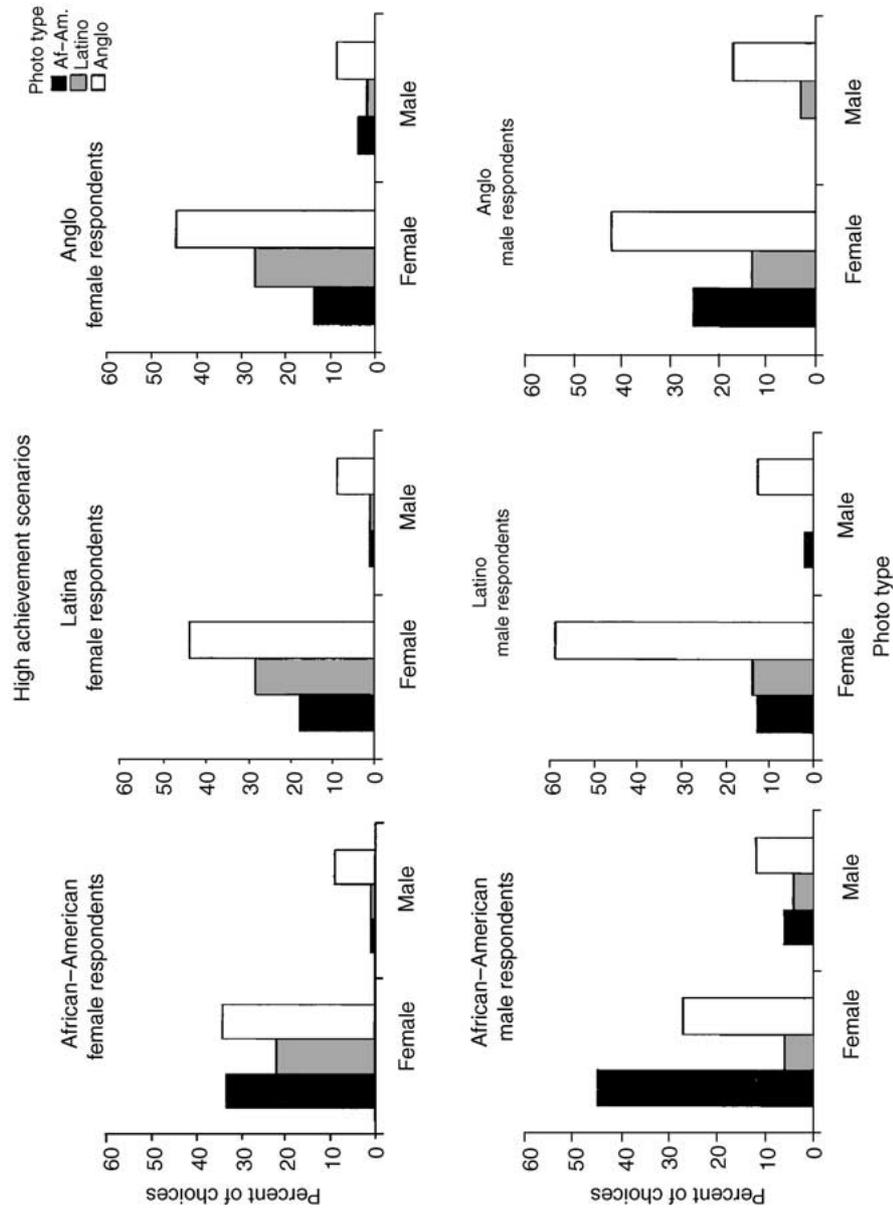
Figure 2. Percent of photo choice as a function of gender and ethnicity of student photographs in high achievement scenarios: Study 2 (multi-ethnic adolescents).

$p < .001$). Female and male respondents across the three ethnic groups more frequently selected photos of girls than of boys (85% v.s. 15%) to match descriptions of academically engaged students.

Next we examined patterns of photo choice within each of the six ethnic-gender groups of respondents to explore in-group and out-group biases. We turn first to female respondents in the upper three panels of Figure 2. African–American females (left upper panel) selected photos of African–American, Latina, and Anglo girls at roughly equal rates. However, only their selection of photos of African–American and Anglo girls significantly exceeded expected frequencies (respectively, $z = 3.61$ and 3.87, $p < .01$). Selections of photos of African–American and Latino but not Anglo boys were significantly below expected frequencies (respectively, $z = -3.52$ and -3.52, $p < .01$).

In contrast, Latina respondents (middle upper panel) showed a preference for photos of Anglo rather than Latina or African–American girls. Only choices of Anglo girls' photos were significantly greater than expected ($z = 5.93$, $p < .001$). Again, selection of photos of ethnic minority but not Anglo boys was significantly below expected frequencies ($z = -3.38$ and -3.38, $p < .01$ for African–American and Latino boys respectively).

Finally, Anglo female respondents (right upper panel) displayed a preference only for Anglo girls' photos. Again, only choices for Anglo girls' photos exceeded the expected cell frequencies: $z = 5.13$, $p < .001$. Following the pattern of our other females, selections of photos of ethnic minority but not Anglo boys were again significantly below expected frequencies ($z = -2.40$ and -2.73, $p < .05$ for African–American and Latino boys, respectively).

For male respondents, we turn to the lower three panels of Figure 2. All males favored girls' photos for high achievement striving, in a manner similar to female respondents. African–American males (left lower panel) over-selected photos of girls within their own group ($z = 4.97$, $p < .001$), and significantly under-selected Latinos ($z = 4.97$, $p < .001$), similar to results from Study 1. Latino respondents (middle lower panel) showed a clear preference for photos of Anglo girls ($z = 7.75$, $p < .001$), and significantly under-selected ethnic minority boys but not Anglo boys ($z = -3.06$ and -2.73, $p < .01$ for photos of Latino and African–American boys, respectively). Anglo males (right lower panel) were also consistent with their female counterparts in over-selecting only photos of Anglo girls ($z = 5.00$, $p < .001$) and under-selecting only ethnic minority boys' photos ($z = -3.27$ and -2.65, $p < .01$, African–American and Latino photos, respectively).

3.2.2. *Low Achievement Scenarios*

The low achievement scenario data are shown in Figure 3, and these findings also largely replicate the general pattern found in Study 1 (all chi-square tests greater than 32.0, $p < .001$). Both female and male respondents of all three ethnic groups overwhelmingly selected male photos as descriptive of someone who exerts little effort in school (86% v.s. 14%).
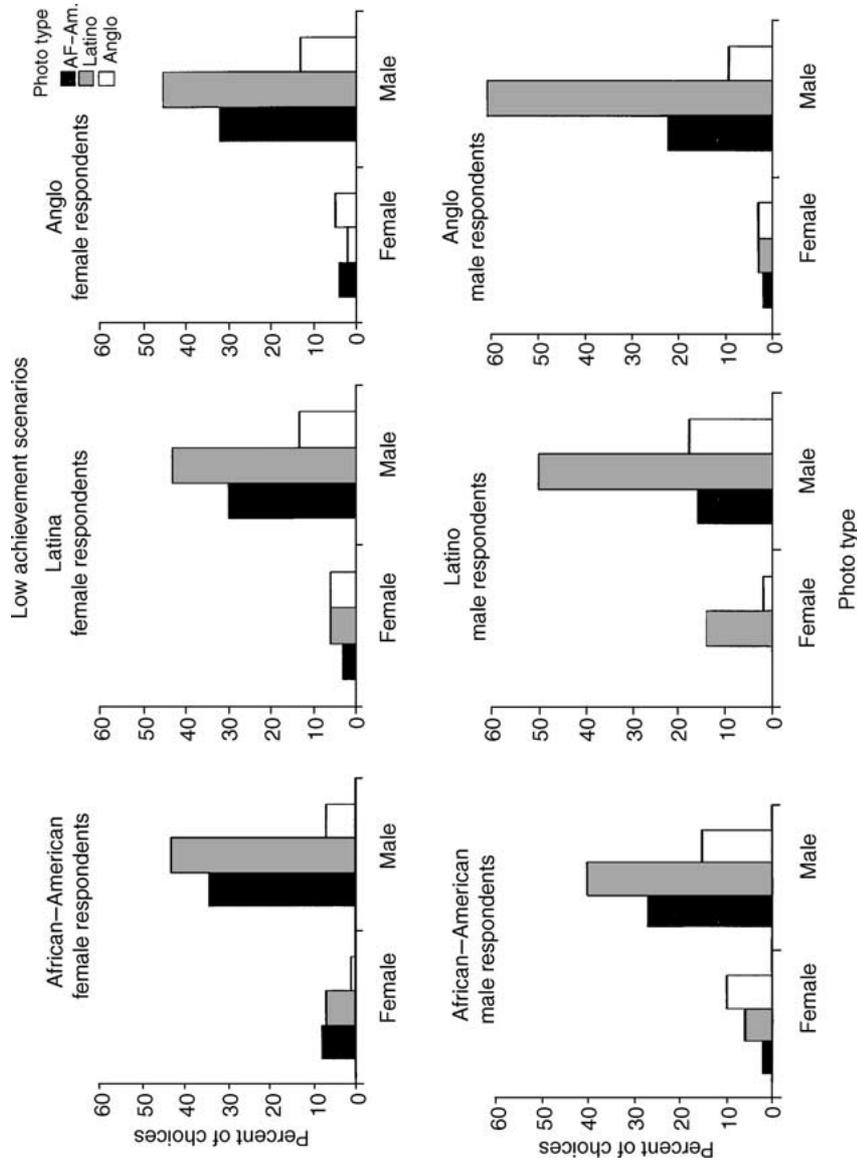
Figure 3. Percent of photo choice as a function of gender and ethnicity of student photographs in low achievement scenarios: Study 2 (multi-ethnic adolescents).

The top three panels of Figure 3 reveal that female respondents of all three ethnic groups most frequently selected African–American and Latino male photos as descriptive of the unengaged student. Each ethnic group of female respondents significantly over-selected photos of African–American and Latino boys (all z scores greater than 2.83). African–American females also significantly under-selected photos of Anglo boys ($z = -2.20$, $p < .05$).

There was a similar preference for minority boys' photos in the data from male respondents (bottom three panels), although the data were more complex in certain ways. African–American males (left lower panel) chose other African–American boys' and Latino boys' photos more than Anglo boys' photos, but only Latino choices significantly exceeded expected frequencies: $z = 4.19$, $p < .01$. Latino male respondents (middle lower panel) significantly over-selected only boys' photos of their own ethnic group as academically disengaged ($z = 6.11$, $p < .001$) with a full 50% of total selections. Similarly, Anglo males (right lower panel) strongly preferred Latino ($z = 8.68$, $p < .001$) photos. Thus, for all three groups of male respondents, being a male and a Latino was most associated with low achievement strivings.

In sum, the gender effects of Study 1 with an African–American sample were replicated in Study 2 with a multiethnic sample recruited from multiethnic schools. Behavior consistent with achievement striving was associated with being an adolescent girl and behavior consistent with an absence of striving was linked to being an adolescent boy. Furthermore, minority boys, particularly Latinos, were overwhelmingly selected by everyone, including Latinos themselves, for low achievement striving scenarios.

4. General discussion

Is there evidence of in-group favoritism and out-group derogation in these data, as predicted by social identity theory? Our results suggest answers that differ for different ethnic groups. Overall, African–American males preferred same-ethnicity girls' photos to match the high achievement scenarios, but African–American females did not. These female respondents preferred same ethnicity boys' photos for low achievement scenarios, but male respondents preferred Latino photos for low achievement scenarios. All Latinos significantly over-selected Anglo girls' photos for high achievement and Latino boys' photos for low achievement scenarios. Anglo girls and boys preferred photos from their own ethnic group for high achievement and Latino photos for low achievement scenarios. Thus, only Anglo respondents displayed in-group favoritism; African–Americans displayed a bias toward only females of their ethnic group.

Concerning out-group derogation, all participant groups preferred ethnic minority boys but not girls, for low achievement scenarios. Latino participants displayed a bias against their in-group, a pattern not at all consistent with social identity theory. Thus, both studies demonstrate a similar relationship between perceived

achievement striving, ethnicity, and gender that is inconsistent with social identity theory, except in the case of Anglo participants. Given the diverse samples and the absence of any individuating information in the picture stimuli, we believe that our findings capture culturally shared stereotypes of achievement, ethnicity, and gender.

4.1. THE CONSEQUENCES OF NEGATIVE CULTURAL STEREOTYPES

A notable difference in students' selection preferences in Study 2 was the rate at which some males selected photos of Anglo boys for scenarios of high achievement striving. Anglo and Latino males in Study 2 selected photos of Anglo boys at rates similar to those for minority girls. This finding is contrary to Study 1, where African–American respondents' selection rates for photos of Anglo and minority males were equally low for scenarios of high achievement (see top panels of Figure 1). Interestingly, this effect in Study 2 was the strongest for Anglo males themselves, suggesting that among male adolescents, Anglos may be more likely than African–Americans or Latinos to identify achievement strivings as more typical of their own ethnic/gender group. This response is highly consistent with cultural stereotypes of Anglo males as achievers and leaders.

A troubling similarity in adolescents' selection preferences in the two studies was the high selection rate for photos of Latinos for low achievement scenarios and the low selection rate for ethnic minority males overall for high achievement scenarios. Study 2 included approximately one-third Latino participants (33% of the males, 36% of the females), and these students apparently agree with the perception that achievement strivings are not typical of male members of their ethnic group. Recall that African–Americans displayed a similarly gendered pattern of photo choices in Study 1. Consistent with the pervasive negative cultural stereotypes of ethnic minority boys, our ethnic minority participants saw academic engagement as typical of their own females far more often than their males. In contrast, gender differences were least pronounced for Anglo adolescents, as described above.

Cultural stereotypes that portray ethnic minority boys as intellectually incompetent and socially belligerent (Irvine, 1990; Ford, 1993; Steele, 1997) are widely known to their targets (Brown, 1995) and are likely to influence targets' behavior (Steele, 1992). Thus, the debilitating burden of these stereotypes may partially explain minority students' underachievement, particularly for ethnic minority boys. In general, throughout the western industrialized world boys tend to be at greater risk for academic failure and school dropout (Hudley, 1995; Griffin, 2001). Ethnic minority boys in particular may also be coping with negative stereotypes of their academic abilities with a process of psychological disengagement (Major et al., 1998) or disidentification (Steele, 1997). These adolescents may devalue academic striving and define their self-concepts in a manner that makes the stereotype of low intelligence less personally relevant. In other words, they may avoid achievement striving and school engagement to stave off possible confirmation of negative

stereotypes and to protect their self-esteem (Schmader, Major, & Gramzow, 2001). The effects of academic disengagement may be more specific to ethnic minority boys because negative stereotypes of low ability and poor school adjustment more often reference minority boys than girls.

4.2. ALTERNATIVE EXPLANATIONS

We would be remiss in not acknowledging another widely shared theoretical explanation for minority student underachievement that is also directly related to social perception. The cultural ecological perspective suggests that each cultural group in a pluralistic society tends to perceive their identity according to the means of their initial incorporation into that society (Ogbu, 1978, 1993). Involuntary minority groups, that is those who have been incorporated into the dominant society without their consent (slavery, conquest) (Ogbu, 1992), see the dominant culture as a tool used against them for the purpose of oppression. As a result, these groups are likely to engage in cultural inversion, or the tendency to regard certain behaviors and symbols as characteristic of the dominant group (e.g., academic motivation, school success) and not appropriate for members of their own group. From this perspective, working hard for school success may connote for some minority students that one is 'acting white', or supplanting one's own ethnic identity with that of the dominant culture (Fordham & Ogbu, 1986; Tatum, 1997). Therefore, adolescents of involuntary minority groups may reject achievement striving and displays of efforts in schools settings to preserve their cultural identity.

However, a cultural ecological explanation that addresses the ethnic group as a whole is unable to explain the marked gender differences we found in photo selections. Using this framework, all members of involuntary minorities, both boys and girls, should be equally likely to perceive achievement striving as inappropriate for their own group. Our data, consistent with recent research conducted with Asians (Goto, 1997) and with ethnic minorities in Europe (Kromhout & Veder, 1996), do not support the theorized typology of minority status. For example, African–American girls and especially boys readily selected photos of females from their own ethnic group for scenarios of high achievement striving. Cultural-ecological theory, among the first to offer a culturally and historically contextualized understanding of minority underachievement, must now use empirical data to qualitatively differentiate and elaborate its basic theoretical premises. It may be that incorporating students' understanding of the social context (e.g., stereotype use) in which they must achieve will be an appropriate direction in which to move.

4.3. LIMITATIONS OF THE RESEARCH

Although this study has identified gender as an important moderating variable in perceptions of minority underachievement, our results should be interpreted with

caution. We have identified our ethnic minority participants as either African–American or Latino and classified all of them as relatively low SES. However, our labels may mask substantial within-group heterogeneity. Our methods did not capture important individual differences in students' experiences with racism and discrimination, nor did we have access to family level data on students' economic circumstances. We derived ethnic identifications from students' school records, which typically offer a forced choice among limited ethnic/racial categories. This strategy may have minimized our ability to identify students of biracial backgrounds, for whom issues of ethnicity and identity are relatively unknown (but see Root, 1996). These limitations underscore the complexities of studying ethnicity and bias but must not deter us from constructing culturally grounded theory and methodology.

Although this study focused on stereotypes of ethnic minority males in the achievement domain, stereotypes of ethnic minority females are no less pernicious. For example, there is growing evidence that African–American females are stereotyped as aggressive and domineering (i.e., lacking in traditional feminine qualities) and promiscuity and obesity are frequently endorsed stereotypes about Latinas (e.g., Weitz & Gordon, 1993; Nieman et al., 1994; Landrine, 1999). The long-term consequences of these negative gendered perceptions for the adjustment of adolescent girls of color are unknown and remain unaddressed in the social psychological literature.

4.4. IMPLICATIONS FOR EDUCATIONAL PRACTICE

Cultural stereotypes about ethnic minority males *and* females may be pervasive, but they are neither inevitable nor immutable. The interaction of ethnicity and gender found in our results suggests that, in certain settings, gender may serve as a protective factor at school for ethnic minority females. Clearly, ethnic minority males are more likely than females to encounter debilitating stereotypes of their limited academic abilities and less likely to find role models for high achievement in schools. Schools should, therefore, create opportunities to highlight the intellectual achievements of minority males, both among their student bodies and within the larger society. African–American males in particular have demonstrated high levels of achievement motivation in specially tailored programs that provide a curriculum emphasizing the intellectual achievements of African–Americans that is taught by African–American male teachers (Hudley, 1995, 1997b).

An entire student body might also benefit from specific, school-wide activities. An oral history project might highlight the contributions of men in an urban community. Assemblies featuring motivational and career awareness speakers (other than sports figures and entertainers) might be complemented with opportunities for more personal interaction with minority male achievers. Negative stereotypes of ethnic minority men are constantly on display in popular culture, and schools must actively work to provide alternatives to these damaging messages for the benefit of all of their students, not just minority males.

4.4.1. *Programming to Ameliorate Stereotyping*

Individuals can also successfully be trained specifically to avoid the automatic association of negative stereotypes with particular ethnic groups (Kawakami et al., 2000). Cooperative learning strategies grounded in social psychological principles, such as jigsaw learning, emphasize shared responsibility and superordinate goals. Such teaching techniques have been successful in reducing prejudice and stereotypes in school settings (see review in Wolfe & Spencer, 1996). Further, many anti-racism and multicultural education programs in elementary and secondary schools incorporate specific training to expose the misconceptions inherent in stereotypes and prejudices. These programs share a set of principles that includes examining both similarities and differences across and within groups, acknowledging the unique differences of each individual, involving members of diverse backgrounds as equal-status contributors, beginning with children at an early age, and engaging in systematic and continuous self-reflection (Hawley & Jackson, 1995). Although these programs typically have a broader goal, the elimination of racism and the celebration of diverse cultures, they will also be useful in rectifying the use of negative stereotypes.

Finally, work has been done to develop strategies that specifically work to reduce the debilitating effects of stereotypes on stereotyped minorities themselves. Basic research in the laboratory (Steele, 1997; Croizet, Desert, Dutrevis, & Leyens, 2001) suggests that best practices will involve school environments being structured to reduce the accessibility and the threat of negative stereotypes, given that situational factors are more easily altered than internal beliefs of both targets and perpetrators. Therefore, schools should emphasize a student's identity as an individual rather than a member of a stereotyped group, promote caring student-teacher bonds, provide optimally challenging work rather than remediation, stress the incremental nature of intelligence (Dweck, 1986), and allow students to consistently and publicly affirm their competence in academic tasks. Such strategies, under the rubric of 'wise schooling' (Steele, 1997), have proven effective with ethnic minority college freshmen.

As all societies become increasingly multicultural, the need to effectively solve the puzzle of minority underachievement increases. Societies must construct both school contexts and cultural contexts that value and affirm the potential of all students. In the face of increased global economic pressures and escalating population shifts, young minority residents represent a constituency whose success is critical to global stability.

Acknowledgements

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