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Social Class and Belonging: Implications for College Adjustment

Joan M. Ostrove and Susan M. Long

As part of the *New York Times*'s recent "Class Matters" series, Leonhardt (2005) reported on why large numbers of low-income students drop out of college (if they enroll in the first place). The primary subject of his article, who left college after his first year in favor of working for pay, said that among other reasons for leaving, "college never felt like home" (p. 88). This paper examines both the ways in which social class background may serve systematically to structure a sense of belonging among current college students and the implications of this relationship for their adjustment to and performance at college.

The importance of a sense of belonging for both psychological and physical well-being has been well established (Barden, Garber, Leiman, Ford, & Masters, 1985; Hagerty, Lynch-Sauer, Patusky, Bouwsema, & Collier, 1992; Hale, Hannum, & Espelage, 2005; Leary, Tambor, Terdal, Downs, 1995).

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Indeed, Baumeister and Leary (1995) have argued that the need to belong represents a “fundamental human motivation” (p. 497). Reviewing an extensive body of literature demonstrating important links between the need to belong and cognition, emotion, behavior, health, and well-being, Baumeister and Leary suggested that much of what we understand about human interpersonal behavior can be integrated under the rubric of belonging. There are, no doubt, myriad ways in which people derive a sense of belonging and multiple dimensions along which belonging can be structured.

DYNAMICS OF BELONGING

Considerable work has documented the circumstances that facilitate belonging (reviewed in Baumeister & Leary, 1995). Developmental research has documented not only the factors that influence how young people decide whom to include and whom to exclude in their social groups (e.g., Bagwell, Coie, Terry, & Lochman, 2000), but also the considerable psychological consequences of such behavior, especially for those who are rejected (e.g., Coie & Cillessen, 1993). For example, real or imagined experiences of social rejection induced negative emotional states among second graders; these negative emotional states were remediated by experiences of social acceptance (Barden et al., 1985). Childhood experiences can also facilitate or hinder a sense of belonging, at least in some situations. For example, Hagerty, Williams, and Oe (2002) found that, in a sample of college students, a sense of belonging as an adult was fostered by retrospective assessment of, for example, parental caring and playing a sport in high school. A sense of belonging was hindered by family financial problems.

Group dynamics and group identification also inform a sense of belonging. Social identity theory and research on intergroup relations—largely inspired by Tajfel’s theory and research (see review in Turner, 1996)—documented the processes by which ingroups and outgroups form and, thus, the ways in which group identification facilitates or inhibits a sense of belonging to a particular community or group. Tajfel’s (1970) classic “minimal group paradigm,” intended to see how little was required to engender discrimination between groups, has generated enough subsequent research to confirm “the *fact* that under certain conditions [assignment to groups based on even trivial criteria] social categorization alone—the mere perception of belonging to one group in contrast to another—can be sufficient for intergroup discrimination in which members favour their own group over the other” (Turner, 1996, pp. 15–16; emphasis his). Of particular interest here are the ways in which social structure informs who belongs and who does not in any given context. Indeed, Turner described a primary goal of social identity theory as an attempt to “integrate the psychological core with the

macro-social realities of group life in societies stratified by power, wealth and status” (p. 18).

Using a slightly different theoretical paradigm, Baumeister and Leary (1995) suggested that group affiliation patterns may be best understood as instantiations of the need to belong and that “it may be no accident that people seem most likely to be prejudiced against members of groups to which they have *little or no opportunity to belong*. Thus, the most common and widespread bases of prejudice are race, gender, and national origin” (p. 521; emphasis ours). Social class is a more complicated variable, using the terms of Baumeister and Leary’s analysis, because, at least in theory, the potential fluidity of class position (i.e., social mobility) affords the *opportunity* to belong to almost any social class group. Yet such markers of class as clothing, speech, and interests are routinely used to describe and identify “people like us” (Alvarez & Kolker, 2001) in ways that can proscribe, inhibit, and even prohibit real belonging with respect to social class. (See also discussions of moral exclusion, e.g., Opatow, 1990).

SOCIAL CLASS AND BELONGING IN THE CONTEXT OF EDUCATION

Recent media attention and recent academic scholarship suggest that college is a useful context in which to discuss social class and belonging (see, for example, Leonhardt, 2005; Ostrove & Cole, 2003; Reay, Davies, David, & Ball, 2001; Wentworth & Peterson, 2001). For example, a cover story in the *Wall Street Journal* (Kaufman, 2001) described how a “culture of money highlights [the] class divide” at elite universities, where meal plans, dorm rooms, and access to computers and cell phones are increasingly visible indicators of who has and who has not (p. A1).

Clearly, educational institutions have class- (and gender-, race-, and ability-) based markers that define, implicitly or explicitly, who “belongs” and who does not (see also Stewart & Ostrove, 1993). Lanhout, Rosselli, and Feinstein (2006) demonstrated that college students—particularly those with less economic capital, who are people of color, and/or who are women—experience systematic discrimination based on social class. Literature in sociology and in higher education documenting the strong relation not only between class background and college attendance, but also between class background and *where* people attend college (e.g., Hossler, Schmit, & Vesper, 1999; Karabel & Astin, 1975; Kingston & Lewis, 1990b), suggests that social class (and, to a large extent, race) shapes who belongs at what kind of institution. (See also Mann, 2001, on the sociocultural context for understanding alienation in higher education.) To provide a race-based example, in their work on status-based rejection sensitivity, Mendoza-Denton, Downey, Purdie, Davis, and Pietrzak (2002) noted that African American

students experience “doubts about belonging” at predominantly White institutions that have historically excluded them (p. 897). Their study found that African American students who were particularly sensitive to status-based rejection felt a significantly lower sense of belonging to the university than those who were less sensitive.

These feelings may be particularly acute at elite schools because the schools themselves serve as cultural markers for belongingness (Kingston & Lewis, 1990a). In their introduction to a collection of studies of elite schools and stratification, Kingston and Lewis provided the following example: “The Dartmouth graduate in charge of a corporate department knows that the job applicant from Princeton is one of them, that he belongs” (p. xiii). Sociologists of education (e.g., Giroux, 1983) focus on class-based institutional cultures and systems to question whether real upward mobility by education is possible, or whether the educational system in fact serves to reproduce social inequity; in fact, these “uses of education” may not be entirely mutually exclusive. In either case, from a psychological perspective, we would argue that the concept of “belonging” is critical in analyzing the connections between class and education.

Extensive research in England has demonstrated the myriad ways in which class background shapes educational experience (e.g., Archer & Hutchings, 2000; Bufton, 2003; Egerton & Halsey, 1993; Hesketh, 1999). Reay, David, and Ball (2005) demonstrated the systematic ways in which class, race, and gender shape students’ “degrees of choice” with respect to higher education. White working-class students and students of color in their studies used cues about class and ethnic mix to choose where they attend college in the first place, asking themselves questions like “What’s a person like me going to do at a place like that?” (p. 91). In describing why a student of color turned down an offer to attend Cambridge in England, Reay, David, and Ball noted, “While part of his aversion stems from the whiteness of [Cambridge]—he says that he felt ‘as if he was the only brown face there’—you also get a powerful sense of the alienation of class cultural differences” (p. 134). Bufton’s (2003) phenomenological study of the origins of feelings of alienation among working-class students in college revealed that, when they were younger, her participants never considered going to college and described the belief that university was “not for the likes of us” (p. 215). Read, Archer, and Leathwood (2003) documented that the desire to belong fueled working-class students’ decisions to attend technical colleges rather than traditional universities.

The academic literature on the lives and experiences of working-class women and men of all racial backgrounds in the United States who attend college, especially as first-generation college students, consistently demonstrates that such students are at a disadvantage with respect to what

they know about postsecondary education, have a more difficult transition from high school to college, and are less likely to persist to graduation than their middle-class peers (see Pascarella, Pierson, Wolniak, & Terenzini, 2004; Walpole, 2003, for reviews). Other research on the college experience points to the critical role of students' class background on both success at college and persistence to graduation. Astin (1993), in his extensive and highly influential study of "what matters in college," found that students' socioeconomic status (SES) is strongly related to virtually every measure of student satisfaction at college that he and his colleagues measured. Astin also noted that student SES "has its strongest effect on completion of the bachelor's degree" (p. 407).

It is worth examining the extent to which social class may affect persistence in college through a sense of belonging. Hausmann, Schofield, and Woods (2006) discussed the ways in which sense of belonging is an implicit component of models of student persistence. Classic theories of college persistence (e.g., Bean, 1980; Tinto, 1993) focus on a myriad of both individual and institutional factors that influence student attrition. With respect to factors that are explicitly a function of social class, Bean's model includes attention to external factors such as finances; Tinto's (1993) theory includes family background variables such as social status and parental education. (See also Cabrera, Castaneda, Nora, & Hengstler, 1992, for a discussion of both models.) In a review of the ways in which race and class may be related to college departure, Tinto (1993) noted that students of color, especially those from economically disadvantaged backgrounds,

tend to face greater problems in meeting the academic demands of college work, in finding a suitable niche in the social and intellectual life of the college, and perhaps in obtaining sufficient financial resources. Academic difficulties, incongruence, isolation, and perhaps finances seem to be more severe for them than for students generally. (p. 75)

As noted above, many of the factors most strongly emphasized in these influential models of college persistence can be thought of under the general rubric of belonging: for example, academic and social integration from Tinto's model and institutional fit from Bean's model. Astin (1993) and Kuh, Kinzie, Schuh, Whitt, and Associates (2005) found that student involvement (or engagement)—another construct that is similar to and may in fact be predictive of a sense of belonging—has "tremendous potential . . . for enhancing most aspects of the undergraduate student's cognitive and affective development" (Astin, 1993, p. 394). (See Kuh et al., 2005, for a review of other research on the relation between student engagement and success at college.) The extent to which students' class background is directly or indirectly related to their involvement in college is an important question.

In their extensive study of first-generation college students, Pascarella et al. (2004) found that, particularly in comparison with students whose parents had a college education, first-generation students attended less selective institutions, worked more hours while they were in school, and had lower cumulative grade point averages and lower levels of extracurricular involvement. Notably, these differences did not translate into disadvantages related to such cognitive outcomes as critical thinking or writing skills, once first-generation students were enrolled in college. Indeed, the data of Pascarella et al. suggested that extracurricular involvement had a stronger positive effect on first-generation students' critical thinking and sense of control over their academic success than it did for other students. In her large, longitudinal study of how SES affects the college experience, Walpole (2003) also found that students from lower SES backgrounds were less involved in co-curricular activities, spent more time working for pay, and had lower GPAs than their high-SES peers. Nine years after they entered college, students from lower SES backgrounds also had lower incomes, lower levels of graduate school attendance, and lower levels of educational aspirations than higher-SES students.

Most notably for our study, the literature on social class and higher education reveals a persistent sense of difference and alienation among students from working-class backgrounds (e.g., Cohen, 1998; Dews & Law, 1995; hooks, 2000; Jensen, 2004; Levine & Nidiffer, 1996; Nelson, Englar-Carlson, Tierney, & Hau, 2006; Roberts & Rosenwald, 2001; Stewart & Ostrove, 1993; Tokarczyk, 2004; Tokarczyk & Fay, 1993). For example, research conducted among White women who attended college in the 1960s indicated that, in contrast to their middle- and upper-class background peers, women from working-class backgrounds who attended private colleges reported significantly more experiences of alienation or unpreparedness; the middle- and upper-class women, in contrast, articulated a sense of belonging (Ostrove, 2003). A study of boys at an elite private high school (Kuriloff & Reichert, 2003) found that, although working-class and upper-class boys have similar relationships to academics at the school, they differed dramatically with respect to the "social geography." Upper-class boys had a much stronger sense that the school is "their school," and all groups of boys noted the way class influenced everything from clothing styles to friendships to awards, virtually all of which went to upper-class boys.

Much of the literature concerning alienation reviewed above is based on case studies, memoirs, and studies with relatively small samples. A more extensive and systematic analysis of the role of class in structuring belonging at college is required. Large-scale studies of SES and the college experience (Pascarella et al., 2004; Walpole, 2003) have used data from a wide range of institutions. As noted above, their research and other studies suggest that class plays an important role in which kind of higher education institution

students attend in the first place. It is important to extend this work to understand the extent to which class matters *within* institutions of higher education.

This study focuses on the role that social class background plays in students' experiences at one selective, liberal arts college. Based on the literature on social class and belonging and social class and the college experience reviewed above, we expected that higher social-class background would be directly related to a stronger sense of belonging, to better social and academic adjustment to college, and to better academic performance. Because some of the literature (e.g., Pascarella et al., 2004) suggested that some college outcomes (e.g., critical thinking and writing skills) were not related to SES and others (e.g., extracurricular involvement) had more of an effect on outcomes for students from lower SES backgrounds than for their more privileged peers, we did not expect class background to be related to the overall quality of students' experience, which is a very broad construct. We expected not only that traditional measures of class background would relate to belonging and adjustment, but also that other class-related experiences (with respect to access to class privilege, experiences of classism, etc.) would also relate to belonging and adjustment. We expected that a sense of belonging would mediate the relation between class background and adjustment and performance outcomes. Finally, we expected that a sense of belonging would have a direct effect on the quality of students' experience, indicating that social-class background has an indirect effect on this outcome.

METHOD

Participants

Participants were 324 students (234 women, 87 men, and 1 "other") enrolled at a small, liberal-arts college in the Midwest. Eight hundred students from the United States (i.e., not international students) were randomly selected through the school's Office of Institutional Research. In the spring semester of 2005, we sent them an email with an invitation to participate in a study on "social identity and the college experience" that included a link to a website through which they could anonymously and confidentially complete the survey. In response to the first call, 252 students completed surveys. We sent two additional follow-up emails to the same list of students, thanking those who had participated and again requesting the participation of those who had not yet responded. These follow-ups yielded 45 and 27 additional completed surveys for an overall response rate of 41%. Students had the option of including their student ID numbers; those who did were entered in a lottery for a prize drawing. Four students in the original sample of 800 who were enrolled in introductory psychology during the semester

of the survey received course credit for their participation. (Introductory psychology students are members of the participant pool and may, if they choose, receive course credit for participating in research projects approved and sponsored by the psychology department.) We deleted two responses because of response errors, leaving a total of 322 participants.

Two students were first-generation college students, meaning that neither parent had ever attended college. Among an additional 28 students, neither parent had a bachelor's degree, although one or both parents had some college-level education. All participants were between the ages of 18 and 23, with a mean age of 20.02 years. Eighty (25%) were first-year students, 105 (33%) were sophomores, 54 (17%) were juniors, and 82 (25%) were seniors. Two hundred sixty-seven participants (83%) identified as White, eight as Asian American, six as Black, four as Latino/a, and 37 as mixed heritage. The racial/ethnic demographics of this sample are consistent with those of the larger student body.

MEASURES

Social Class

We assessed social class background both subjectively and objectively to capture the different ways people conceptualize and identify social class in the United States. The subjective assessment asked participants to identify with one of the following social-class categories when they were growing up: poor, working class, lower middle class, middle class, upper middle class, upper class. (See Jackman, 1979, and Ortner, 1998, for examples and discussions of subjective class-identity categories.) We assessed objective social class by asking about the student's family income, parents' education, and parents' occupation. (For a comprehensive review of the use of income, education, and occupation as objective indicators of social class, see Krieger, Williams, & Moss, 1997.) We asked participants to indicate their family income using 14 categories (e.g., "\$40,001 to 60,000 a year"). The scale was anchored at the bottom with "< \$10,000 a year" and at the top income range with "more than \$1,000,000" a year.

We assessed parents' education by asking students to indicate how much schooling each of their primary parents had completed in 13 categories ranging from "less than high school" to law, medical, and other doctoral-level degrees. We recoded these responses into six levels of education: (a) less than high school, (b) high school or GED, (c) some college or associate degree, (d) B.A., (e) M.A., and (f) doctoral level, including J.D., M.D., or Ph.D. Participants described their parents' occupations by using one of 23 categories based on census classifications, which we recoded based on Hollingshead and Redlich's (1958) classification scheme into nine categories:

(a) unemployed, (b) no paid work, (c) unskilled labor, (d) semi-skilled labor, (e) skilled labor, (f) clerical or technical work, (g) administrative personnel or small business owner, (h) minor professional or manager of medium businesses, (i) major professional or executive. For some analyses, we combined objective socioeconomic status into one index based on standardized values for family income, father's and mother's degrees, and father's and mother's occupations. This composite objective SES variable had an alpha reliability of .73.

Other Indicators of Social Class Status

Based on a study exploring the reasons students place themselves in particular social-class categories (Ostrove & Long, 2001), we developed a five-item measure of access to basic needs and to educational and leisure opportunities for this study. Participants indicated on a five-point scale (ranging from "did not have access" to "had excellent access") the extent to which they had access growing up to "a good education," "travel," "lessons," "a safe neighborhood," and "basic food and shelter." The scale had an alpha reliability of .81.

We assessed concerns about time, money, and friends with a six-item measure created for this study. Sample items included: "My friends don't understand why I'm concerned about money"; "I can spend as much time studying as I need to" (reverse scored); and "It's easier to be friends with people who share my class background." Participants indicated the extent to which they agreed with each item on a five-point scale ranging from "strongly disagree" to "strongly agree." The scale had an alpha reliability of .73.

We assessed each of the categories of "ease of life," "financial security," and "hours of work" with a one-item measure. Participants were asked to indicate how they would characterize their life when they were growing up in terms of "ease" on a five-point scale ranging from "life was quite difficult" to "had a life of ease." The financial security item asked participants to rate their family's financial security on a five-point scale that ranged from "my family was never financially secure" to "my family was always financially secure." "Hours of work" asked how many hours a week the participant worked for pay, including work-study or off-campus work.

We assessed institutional classism and exclusion based on scales from Langhout, Rosselli, and Feinstein (2006). Items on this five-item measure asked participants to rate the frequency of particular college experiences, including, "You could not join a sports team because you could not afford the associated expenses" and "You had to live in the dorms because you could not afford another housing option." We assessed exclusion with two items: "You felt excluded or that you couldn't join a social activity because you were of a lower socio-economic status" and "You felt excluded or that you couldn't participate in an academic activity or opportunity (e.g., dis-

cussion groups or conference presentations) because you were of a lower socio-economic status.” Participants indicated the frequency with which they experienced institutional classism and exclusion on a five-point scale ranging from “never” to “many times.” The alpha reliabilities for each scale in this sample were .67 for institutional classism and .77 for exclusion.

Our assessment of comparative class status drew on two items from Langhout and Rosselli (personal communication). The first asked participants to indicate how they think their family income compared to that of the average student at the school; the second asked them to compare their family income to that of their friends at the school. Participants responded on a seven-item scale ranging from 1 (“my family income is much lower than that of the average College X student” [or “. . . than my College X friends”]) to 7 (“my family income is much greater than the average College X student” [“. . . than my College X friends”]).

Sense of Belonging at College

We assessed “belonging” with two items. One was from the Student Adjustment to College Questionnaire (SACQ) (Baker & Siryk, 1999): “I feel that I fit in well as part of the college environment.” Participants indicated their responses to this item on a nine-point scale ranging from “applies very closely to me” to “doesn’t apply to me at all.” We created the other item for this study: “Overall, to what extent do you feel you belong at [College X]?” Participants responded on a five-point scale ranging from “not at all” to “a great deal.” Each item was standardized and the two-item measure had an alpha reliability of .85.

Adjustment to College

Participants completed two questionnaires concerning their adjustment to college, the SACQ (Baker & Siryk, 1999) and the College Self-Efficacy Instrument (CSEI) (Solberg, O’Brien, Villareal, Kennel, et al., 1993). Both questionnaires have subscales relating to academic and social adjustment. We assessed academic adjustment by combining the academic subscales of the SACQ and the CSEI. The SACQ’s 24-item academic adjustment subscale includes items such as “I have been keeping up to date on my academic work” and “I am finding academic work at college difficult.” Participants responded on a nine-point scale ranging from “applies very closely to me” to “doesn’t apply to me at all.” The scale had an alpha reliability of .90 in this sample.

The CSEI academic subscale consisted of 12 tasks (e.g., “do well on exams,” “talk to a professor”). Participants indicated how confident they were in their abilities to complete each task on a five-point scale ranging from “not at all confident” to “very confident” ($\alpha = .90$). The SACQ and CSEI academic subscales were significantly correlated ($r = .62$); we standardized and combined them as a composite academic adjustment measure.

The SACQ has two subscales addressing social adjustment to college: social adjustment and personal-emotional adjustment. We used one item on the social subscale to assess belonging; the remaining 19 items include, for example, "I am very involved with social activities in college" and "I have been feeling lonely a lot at college lately (reverse scored)" ($\alpha = .89$). Personal-emotional adjustment was assessed by 24 items such as "I am experiencing a lot of difficulty coping with the stresses imposed on me in college (reverse scored)" and "My appetite has been good lately" ($\alpha = .89$). The two SACQ subscales were significantly correlated ($r = .47$). We assessed overall social adjustment by standardizing and combining the social and personal-emotional subscales of the SACQ and the four-item social subscale of the CSEI. Sample items from the latter subscale included "make new friends at college" and "join a student organization" ($\alpha = .64$). The composite social adjustment measure was reliable ($\alpha = .75$).

Other College Outcomes

The quality of participants' experience at college was assessed with one item: "Overall, how would you rate your experience at [College X] in general?" Participants responded on a five-point scale ranging from "poor" to "excellent." We assessed academic achievement by asking participants their current GPA.

RESULTS

Social Class Identification

Subjective class status. Table 1 presents participants' subjective social-class identification when they were growing up. Most participants described themselves as middle (38.8%) or upper-middle (25.2%) class.

Objective class background. Table 2 presents all data regarding family income, parents' education, and parents' occupation. The median reported family income was between \$60,000 and \$80,000 a year; we combined all income categories greater than \$150,000/year. Many of the students' fathers (55%) had an advanced degree (i.e., master's or doctoral level), as did half of their mothers. Half of their fathers were employed as major professionals (e.g., lawyers, doctors, or high-level managers). The most common occupational category for their mothers (32%) was minor professional (e.g., mid-level manager or social worker). The majority ($N = 209$ or 82%) of the participants attended public high schools; 39 (15.3%) attended private high school, and seven (2.7%) attended parochial schools.

Data Analysis Strategy

We conducted bivariate correlations to assess relations between class background variables and other class-related variables, as well as their

TABLE 1
SUBJECTIVE SOCIAL CLASS BACKGROUND OF SAMPLE

<i>Status</i>	<i>Percent</i>
Poor	5.0
Working class	9.4
Lower middle class	15.8
Middle class	38.8
Upper middle class	25.2
Upper class	3.6
"Other"	2.1

TABLE 2
OBJECTIVE SOCIAL CLASS CHARACTERISTICS OF SAMPLE

<i>Characteristics</i>	<i>Percentage</i>	
Family income (N = 240)		
< \$10,000/year		.4
\$10,001-20,000/year		2.9
\$20,001-40,000/year		13.8
\$40,001-60,000/year		16.3
\$60,001-80,000/year		18.8
\$80,001-100,000/year		13.3
\$100,001-150,000/year		17.1
More than \$150,000/year		17.6
	<i>Father (N = 228-231)</i>	<i>Mother (N = 244-250)</i>
	<i>Percentage</i>	<i>Percentage</i>
Parents' education		
Less than high school	.9	1.6
High school or GED	5.2	4.0
Some college	14.7	18.0
B.A. or B.S.	24.7	28.8
M.A.-level degree	19.9	35.2
Doctoral-level degree	34.6	12.4
Parents' occupation		
Unemployed	3.5	2.5
No paid work	.4	6.1
Semi-skilled labor	3.5	7.0
Skilled labor	10.5	3.7
Clerical/technical	5.3	14.8
Administrative	19.7	14.3
Minor professional	7	31.6
Major professional	50	20.1

relation to the key outcome variables. Next, we used hierarchical multiple regression to identify which class-related variables were most predictive of belonging and adjustment. Finally, we performed a series of multiple regressions to test the direct and indirect (through sense of belonging) effects of class background on college adjustment, quality of college experience, and academic performance.

To determine whether belonging acted as a mediator in the relationship between class background and the critical college outcomes, we performed linear regression analyses. Belonging functioned as a mediator if the following criteria were met (Baron & Kenny, 1986): (a) class background accounts for variance in adjustment levels, (b) class background accounts for variance in belonging levels, and (c) when belonging is taken into account, the relationship between class background and adjustment decreases (partial mediation) or completely disappears (full mediation). We used online software Medgraph-I¹ to confirm mediation (Jose, 2003). When provided with the correlation matrix for class background, belonging, and adjustment, and regression coefficients of belonging regressed on class background, and adjustment regressed on belonging, and class background, Medgraph-I computes a coefficient for the indirect effect of class background on adjustment through belonging and tests the null hypothesis that the population indirect effect coefficient is zero using the Sobel Test (1982). Finally, the software indicates the presence of full, partial, or no mediation.

Correlational Associations with Class Background

Subjective and objective indicators of class background were significantly correlated ($r = .44, p < .001$), but the correlation is not so strong as to suggest that the two indicators are measuring exactly the same concept. Table 3 presents bivariate correlations between class background, assessed both subjectively and objectively, and sense of belonging, adjustment, quality of experience, and academic performance in college.

In general, and consistent with our hypotheses, class background—assessed both objectively and subjectively—was strongly related to participants' sense of belonging at and adjustment to college, and not significantly (or less strongly) related to their overall experience or academic performance at college. Both objective and subjective class background were significantly related to sense of belonging and to academic adjustment; subjective class background was also significantly related to social adjustment, and objective SES background was weakly correlated with GPA. Separate, post-hoc analyses of each individual indicator of objective SES (family income, mother's

¹Jose (2003) designed Medgraph to help clarify mediational analyses by using information from the Sobel test, and to depict graphically whether a relationship between two variables is fully, partially, or not mediated by a third variable.

TABLE 3
CORRELATIONS BETWEEN SOCIAL CLASS BACKGROUND AND
COLLEGE EXPERIENCES
 (NS RANGE FROM 256 TO 271)

	<i>Subjective Class Background</i>	<i>Objective Class Background</i>
Sense of belonging	.25**	.20**
Academic adjustment to college	.22**	.19**
Social adjustment to college	.22**	.11
Quality of college experience	.10	.03
Academic performance	.10	.13*

** $p < .01$
 * $p < .05$

and father's occupation, mother's and father's education) with GPA reveal that the objective SES measure that was significantly correlated with GPA was mother's education ($r = .13, p = .05$), and that was the case only among women students ($r = .23, p < .01$), but not among men ($r = -.15, n.s.$).

Not surprisingly, both subjective and objective class background were significantly related to other indicators of class status, both from participants' backgrounds and during their college experience. Data presented in Table 4 indicate that both objective and subjective class background are significantly related to participants' perceptions of their family's financial security, their access to needs and opportunities, and the extent to which they lived a life of ease. They are also significantly related to experiences of institutional classism and exclusion; to concerns about time, money, and friends; and to their perception of their own family's class status in comparison with that of other students at the college.

The number of hours participants worked for pay during the school week was significantly negatively correlated with subjective class background, but not with objective class background. With the exception of the comparison of their own and others' family class status and hours worked per week, all of these other indicators of class status were significantly related to participants' sense of belonging at college, and to their academic and social adjustment to college. Family status comparisons were not significantly related to academic or social adjustment, but they were to belonging. Hours worked per week were significantly related to both academic and social adjustment, but not to belonging.

TABLE 4
CORRELATIONS OF CLASS-BASED VARIABLES WITH SOCIAL CLASS, BELONGING, AND ADJUSTMENT
(NS RANGE FROM 216 TO 321)

	<i>Subjective Class Background</i>	<i>Objective Class Background</i>	<i>Belonging</i>	<i>Academic Adjustment</i>	<i>Social Adjustment</i>
Family financial security	.60**	.52**	.31**	.20**	.23**
Life "of ease"	.50**	.42**	.33**	.33**	.33**
Access	.62**	.53**	.36**	.25**	.27**
Institutional classism	-.39**	-.30**	-.32**	-.23**	-.28**
Exclusion	-.38**	-.26**	-.29**	-.24**	-.26**
Concerns about time/money/friends	-.42**	-.40**	-.30**	-.21**	-.31**
Family class status compared to rest of college	.63**	.52**	.25**	.12	.09
Family class status compared to friends	.58**	.52**	.24**	.11	.11
Hours per week at paid work	-.21**	-.10	-.09	-.16*	-.16*

** p < .01

* p < .05

Effects of Class-Related Variables on Belonging and Adjustment

We used separate hierarchical multiple regression analyses to determine which of the other class indicators were most predictive of belonging and adjustment. In each analysis, class background variables (family financial security, life of ease, access) were entered in the first block; college variables (institutional classism; exclusion; concerns about time, money, friends; and family status comparisons) were entered next.

Only background (not college) variables—access and a life of ease—were significant predictors of belonging. A life of ease was the only significant predictor of academic adjustment when all other class-related predictors were taken into account. A life of ease, concerns about time/money/friends, and status comparisons with other students at the college were significant predictors of social adjustment. Beta weights for each variable and significance tests are presented in Table 5.

Does Belonging Mediate the Social Class-College Outcome Relationship?

We used linear regression analyses to generate path coefficients to test whether a sense of belonging mediates the relation between social-class background and academic and social adjustment to college. First, the adjustment variable (academic or social) was regressed on the class background variable (either objective or subjective). Next, belonging was regressed on the class background variable; adjustment was regressed on belonging; and finally adjustment was regressed on both class background and belonging.

Because both individual paths were significant, mediational analyses were appropriate. We used online software Medgraph-I to test mediation (Jose, 2003). These calculations indicate that belonging fully mediates the positive relationship between objective class background and academic adjustment (Sobel z -value = 3.07, $p < .01$), between objective class background and social adjustment (Sobel z -value = 3.16, $p < .01$), between subjective class background and academic adjustment (Sobel z -value = 3.86, $p < .001$), and between subjective class background and social adjustment (Sobel z -value = 4.02, $p < .001$).

Results of the regression analyses also indicate that these models explain a substantial portion of the variance in academic ($R^2 = .25$ for the path with subjective class background and $.24$ for the path with objective class background) and social adjustment ($R^2 = .34$ for the path with subjective class background and $.33$ for the path with objective class background). Figures 1 through 4 present the results of these analyses.

Additional path analyses using quality of college experience and academic performance as outcome variables indicated that, with one exception, there was no direct relationship between social class background and either of these outcomes. The exception was that objective SES had a significant direct relation to academic performance which, as was the case for both adjustment

TABLE 5
EFFECTS OF CLASS-RELATED VARIABLES ON
BELONGING AND ADJUSTMENT

	<i>Belonging</i> <i>Beta</i>	<i>Academic</i> <i>Adjustment</i> <i>Beta</i>	<i>Social</i> <i>Adjustment</i> <i>Beta</i>
<i>Step 1</i>			
Access	.26**	.11	.12
Financial security	.00	-.09	-.05
Life of ease	.17*	.33***	.28***
<i>Step 2</i>			
Exclusion	.03	-.03	-.07
Institutional classism	-.14	-.14	-.11
Concerns re: time, money, friends	-.10	-.03	-.24**
Family class comparison with all students	-.08	-.12	-.35**
Family class comparison with friends	.05	-.01	.06
R ² change	.02	.02	.08
Overall R ²	.17**	.14**	.20***

* $p < .05$
** $p < .01$
*** $p < .001$

variables, was mediated by sense of belonging. There were, however, indirect effects of social class background on academic performance and quality of experience. Objective social class background predicted sense of belonging ($\alpha = .20, p < .001$), which in turn significantly predicted quality of experience ($\alpha = .74, p < .001$). Subjective social class background also predicted sense of belonging ($\alpha = .25, p < .001$), which in turn significantly predicted both quality of experience ($\alpha = .73, p < .001$) and academic performance ($\alpha = .12, p < .05$; full paths not shown).

DISCUSSION

Our primary goal was to illuminate how social class informs students' experiences of belonging at college and how belonging is related to academic and social outcomes. Our results demonstrate that social class background has important implications for students' sense of belonging at and adjustment to college. Indeed, social-class background was strongly related to a sense of belonging at college, which in turn predicted social and academic

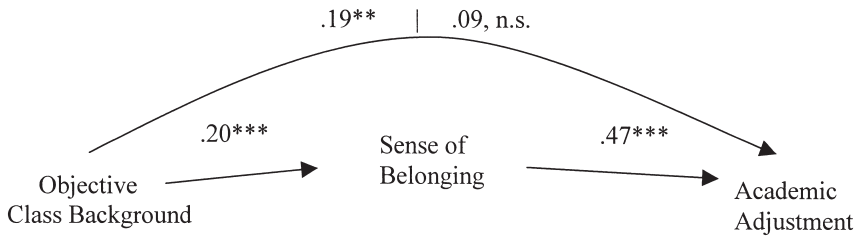


Figure 1. Sense of belonging as a mediator of the objective class background-academic adjustment relationship.

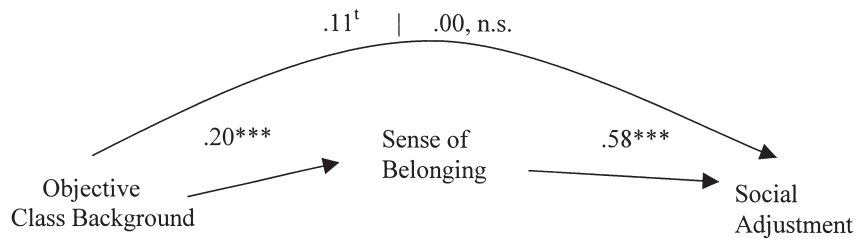


Figure 2. Sense of belonging as a mediator of the objective class background-social adjustment relationship.

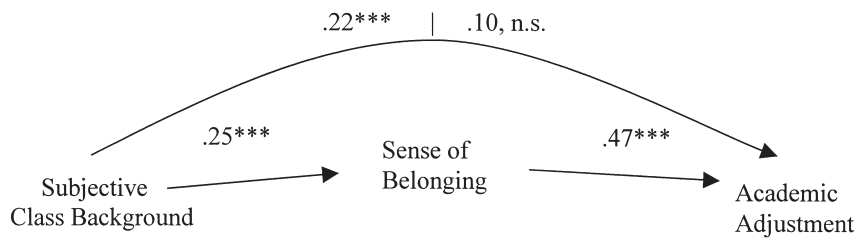


Figure 3. Sense of belonging as a mediator of the subjective class background-academic adjustment relationship.

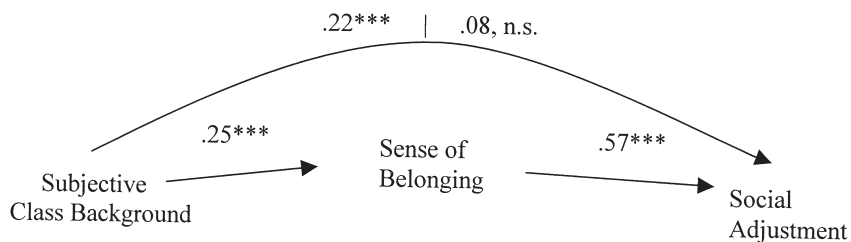


Figure 4. Sense of belonging as a mediator of the subjective class background-social adjustment relationship.

adjustment to college, quality of experience at college, and academic performance. These relationships were found both when social class was measured objectively as a composite of standard indicators of SES (family income, parents' education, parents' occupation) and also when it was assessed subjectively by asking participants to self-identify as a member of a social class group. In general, the relationships also held when we used other class-related measures (access to privileges and experiences of classism). This consistency suggests that both objective and subjective indicators may be used to assess students' class background and that both kinds of measures are meaningful with respect to their implications for students' experiences. Although the results were similar across different types of measures of class, they were not identical. For example, objective but not subjective class background was a (marginally) significant predictor of GPA (another "objective" measure, though one that was obtained by self-report); subjective but not objective class background was significantly related to social adjustment to college. In general, even when the pattern of relationships was consistent across measures of class background, correlations and path coefficients were stronger with the subjective measure than with the objective measure. It is possible that the subjective measure, because it requires identification with a specific social class group, taps into students' assessment of their own social status more than objective measures of their parents' education, income, and occupation do.

It is critical to note that social class background—assessed both objectively and subjectively—appears to have a substantial influence on a variety of important college outcomes via a sense of belonging, rather than directly. These findings suggest not only that class background structures a sense of who belongs and who does not but also that a sense of belonging has crucial implications for college experience and performance. It is possible that feeling that one does not belong affects the extent of participation in class, willingness to seek help as needed, and other critical behaviors that influence college success. It will be important for future research to examine the processes by which a sense of belonging affects the college experience.

Our findings are generally consistent not only with the literature on SES and college that demonstrates an effect of SES background on some aspects of college experience and performance (e.g., Walpole, 2003), but also with the literature suggesting that students from less privileged social-class backgrounds are more likely to feel alienated and marginal at college (e.g., Ostrove, 2003). These findings extend our knowledge in this area by suggesting that social class may have some of its most critical influence through a sense of belonging.

One important limitation of the current study is that the sample was from one liberal arts college and is thus not typical of all college students. Another was our inability, because of insufficient numbers, to conduct analyses to

assess the intersectional influence of social class, race, and gender on college experiences and outcomes. Exploratory, post-hoc analyses suggested that the overall patterns of relations among class, belonging, and college outcomes were quite similar for people of color and White people, and were stronger among women than among men.

A third limitation is that this study focused only on students who were currently enrolled in college; we do not know the possible role that class background may have played on those who leave. (See, e.g., Braunstein, McGrath, & Pescatrice, 2000, for a review of literature on the role of financial factors on student attrition.) The importance of student involvement on persistence (e.g., Tinto, 1993), and the potential relationship between involvement and a sense of belonging, suggests that class may play an important role in attrition via belonging. Future research should address these issues more extensively.

The study has a number of other important limitations. As noted above, all of the students attended one liberal arts college; our findings are therefore not generalizable to all college students and may not be applicable to students who attend large public universities or other kinds of institutions of higher education. Indeed, the social-class context of liberal arts colleges, which are typically upper class or upper-middle class in terms of their class-based cultures (Stewart & Ostrove, 1998), may heighten a sense of alienation among students from less privileged background.

Another limitation concerns the nature of our measures. We used a two-item measure of belonging, employed a one-item measure of the overall quality of the college experience, and assessed academic performance only by self-reported GPA. These are admittedly narrow operationalizations of important constructs; it will be important for future research to use more robust measures.

Despite these limitations, our findings fit well into literatures in both psychology and higher education. Understanding how social class position structures a sense of belonging at college has implications, not only for conceptual and empirical work on psychology and social structure, but also for policy in higher education. Walpole (2003) noted that students from low SES backgrounds have always attended institutions of higher education in small numbers and are still underrepresented, particularly in four-year and more selective colleges and universities. Attention to issues of class in higher education has recently focused on the increasingly prohibitive cost of college, the underrepresentation of low-income students at selective schools (e.g., Bowen, Kurzweil, & Tobin, 2005), and efforts to ensure access to highly selective schools for people from economically disadvantaged backgrounds (see, e.g., Wyner, 2006).

Scholars of higher education recognize that ensuring access to higher education for underrepresented groups remains critical. (See, e.g., Ellwood

& Kane, 2000, for a recent analysis of how class background influences college enrollment.) However, they also note the importance of changing the *environment* of higher education so that it is more welcoming to people from underrepresented groups (Pascarella & Terenzini, 1991; Powell, 1998; Valverde, 1998). Most of the research that supports the need to transform institutions of higher education has focused on how students of color (and, more recently, gay/lesbian/bisexual students) navigate institutions of higher education and the effects of college, and changes in college policies, on those students (e.g., Evans, 2002; Hoffman, 2002; Kalsner & Pistole, 2003; Upcraft, Gardner, & Associates, 1989). Although diversity is an increasingly central focus of many colleges' mission statements (and is reflected in changes in admissions goals, the curriculum, and student organizations, among other aspects), research continues to show, for example, that the climate remains a stressful one for students of color at predominantly White schools (e.g., Kenny & Perez, 1996; Powell, 1998; Upcraft et al., 1989). Powell (1998) suggests that the struggles for people of color in higher education are at least partly a function of social class.

A number of programs have been implemented at higher education institutions to facilitate the transition to college for low-income students and students of color. For instance, Olszewski-Kubilius and Laubscher (1996) found that a summer career and counseling program helped foster positive perceptions of college in economically disadvantaged students. However, having high hopes for school was not enough; the students in this study still experienced alienation, marginalization, and frustration. The University of Arkansas employed a peer counseling program to help its students of color adjust to college life and to promote healthy lifestyle choices, finding that peer counseling can help "respond to our changing world [and] its ever-present impact on new and incoming freshmen" (Boen, 1989, p. 168). Peer counselors can answer questions about a school that the administration may be more hesitant to state explicitly, such as the institutional norms, and can also provide guidance about "academic adjustment, academic skills deficiency, course scheduling, and financial need" (Trippi & Cheatham, 1989, p. 40). Results from Kuh et al.'s Documenting Effective Educational Practice (DEEP) project (2005) indicate that DEEP schools made extensive use of peer-support programs; many of these schools also had very successful transition and retention programs for students from historically underrepresented groups.

In 1965, the federal government established TRiO programs that were designed to "ensure equal educational opportunity for all Americans, regardless of race, ethnic background, or economic circumstances" (Balz & Esten, 1998, p. 334). These programs mandate that two-thirds of participants "are low-income, first-generation college students" (Balz & Esten, 1998, p. 334). The programs are intended to "overcome the social and cultural barriers to

higher education . . . [using] highly targeted programs that focus on early intervention” (Balz & Esten, 1998, p. 334). Some TRiO programs provide counseling services and a textbook library, and offer workshops dealing with class issues. Balz and Esten (1998) found that TRiO participants were more likely than non-TRiO participants with similar backgrounds to have completed college and to have been enrolled in a graduate program. Walsh (2000) also reported that the graduation and retention rates and GPAs of TRiO students exceeded those of similar students who were not enrolled in the TRiO program.

Knowing that lower social-class position relates to poorer college outcomes is, in many ways, not a particularly useful finding, as we cannot change people’s class backgrounds. Knowing that its primary influence may be about belonging, in contrast, is very useful, because we can change the extent to which institutions of higher education are welcoming and inclusive with respect to social class. In their work on the role of rejection sensitivity in African American students’ experiences at predominantly White institutions, Mendoza-Denton et al. (2002) noted the importance of “identifying institutional arrangements that can influence feelings of belonging and legitimacy” (p. 915). They further suggested that “maximizing individual and institutional potential requires moving beyond diversity solely in numerical terms to ensuring that members of various groups feel—and have a basis for feeling—a sense of belonging, acceptance, and trust in the institution” (p. 896). Hausmann, Schofield, and Woods (2006) described an intervention study to increase students’ sense of belonging at college; their results indicate that enhancing African American and White students’ sense of belonging predicted their intention to persist to graduation.

It is important to note, however, that, with the exception of the program described by Hausmann et al. (2006), all of these programs just described focus on changes or adjustments expected of individual students, not on changes to the institutional climate that will give students from all social class backgrounds a strong sense that they all belong. Although the presence of visible campus programs like those provided through TRiO can make a difference, future research and policy must attend to both individual- and institutional-level changes that, if implemented, would ensure that all students, regardless of background, know that they belong. Increasing students’ sense of belonging may have important implications for their transition to college, their persistence to graduation, and their ultimate success at college (e.g., Astin, 1993; Kuh et al., 2005).

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