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STATUS-BASED DISCRIMINATION AND CULTURAL MISMATCH PREDICT DECREASED BELONGING AMONG LOW-SES COLLEGE STUDENTS

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Abstract

Students from low-socioeconomic status (SES) who are just starting college are more likely to experience discrimination. Frequent discrimination is associated with harmful effects on students' well-being, including increased negative mental health symptoms (Hwang & Goto, 2008) and decreased sense of belonging in their college environment (Hussain and Jones, 2021). Discrimination is also associated with greater perceptions of cultural mismatch (Feasel et al., 2023), which occurs when a student's home culture does not match their university culture. Cultural mismatch also negatively impacts college students' sense of belonging (Phillips et al., 2020). Given that discrimination and cultural mismatch have similar effects on belonging, the current study tests our hypothesis that cultural mismatch mediates the relationship between SES discrimination and the perceived sense of belonging in low-SES college students. We found support for this mediational model in data analyses from a pre-existing longitudinal study. Students who experienced constant SES discrimination have frequently experienced more cultural mismatch and, as a result, felt less like they belonged during their first three years of college. In a follow-up study, these results were replicated in a cross-sectional study with low-SES college students using a more robust measure of SES discrimination.

Introduction

Attending college is seen as the start of a successful life, especially for low socioeconomic status (SES) and first-generation students. Generally, the college experience provides undergraduates with economic benefits and increased chances of earning above-average wages (Abel & Deitz, 2014; Dale & Krueger, 2002). It has been shown that low-SES students receive many benefits from attending college, such as higher graduation rates and benefits relating to career and income (Brand & Xie, 2010; Heitner & Sherman, 2013; Melguizo & Wolniak, 2012). However, this period of socioeconomic mobility may also be associated with negative experiences for college students. Along with moving away from home and learning how to be independent, which is already a difficult experience for many first-year college students, low-SES students also face financial stress, disparities between their home life and new life at university, and discrimination. In addition to coming from low-income backgrounds, many of these students are also first-generation college students, which further adds on to the difficulties they confront since they have little support or guidance from their family members (Pascarella et al., 2004; Padgett et al., 2012). While low-income and first-generation students face challenges when attending college, many might not expect the prejudice and incompatibilities they will experience.

For students who come from low-income backgrounds, the uncertainty regarding their socioeconomic status decreases academic motivation and engagement (Destin et al., 2019) and leads to more academic struggles and poorer academic performance (Chen & DesJardins, 2010; Loeb & Hurd, 2019). Students who experience discrepancies between their home culture/norms and college culture/norms, an experience named cultural mismatch, perceive reduced belonging at college (Phillips et al., 2020) and engage in fewer help-seeking behaviors (Chang et al., 2020), both of which may affect many other college outcomes. Correspondingly, students who experience discrimination have lower levels of belonging (Hurtado and Carter, 1997; Levin et al., 2006; Hussain & Jones, 2021), higher physical health risks (Dover et al., 2020), and more negative mental health outcomes (Hwang and Goto, 2008). Although both perceived discrimination and cultural mismatch have shown negative outcomes for low-SES and first-generation students, these two lines of research have developed separately. In the current research, we examined how these variables may jointly affect a perceived sense of belonging. Additionally, we tested if cultural mismatch explains the relationship between discrimination, more specifically, status-based discrimination, and belonging in college students.

Discrimination

Discrimination is a key factor in the negative experiences low-income students face. It's upon entering college when low-SES students experience both blatant and covert discrimination, contributing to perceived alienation (Cole & Omari, 2003; Oliver et al., 1985; Levin et al., 2006). Discrimination may result in confused sentiments about one's place in their environment, leading to negative emotions and perceptions of oneself. Most of the research on discrimination has focused on racial discrimination and its negative effects on college students'

outcomes. Various forms of racial discrimination have been shown to decrease a sense of belonging. Adult discrimination, such as bias or prejudice from teachers or school authority figures, threatens students' sense of belonging (Montoro et al., 2021), which predicts other adverse outcomes like lower task management (Heikamp et al., 2020). Many studies have explored discrimination and how it can generate harmful consequences, especially for those who come from low-socioeconomic backgrounds or who belong to minority groups. A prominent finding is that adolescents from ethnic minority groups report experiencing more racial discrimination and negative interactions displaying racial prejudice report lower belonging in school (Niwa et al., 2014; Montoro et al., 2021). This effect is also found in college campus settings, where more reported experiences of discrimination for students of color predict a lower report of belonging (Hussain and Jones, 2021; Levin et al., 2006; Mallett et al., 2011).

The current research will contribute to the literature on discrimination by focusing on SES discrimination and its consequences for low-income and first-generation college students. While it has been consistently demonstrated that racial discrimination has detrimental effects on low-income and minority groups, it is also important to examine the consequences of status-based or socioeconomic status (SES) discrimination. Experiencing discrimination due to one's socioeconomic status may produce a decrease in perceived sense of belonging in college students as it impacts one's self-identity in the context of their environment, a similar effect of racial discrimination. In addition to reporting more SES discrimination, members of ethnic minority groups also experience greater adverse effects in physiological health, mental health, and sleep as a result of this discrimination (Ren et al., 1999; Van Dyke et al., 2016; Van Dyke et al., 2017). Although racial discrimination may be a more common predictor variable in existing research as it is based on more physical and visible characteristics, it is important to understand the consequences of status-based discrimination as well. We theorize that SES discrimination differs from racial discrimination as it is an intrinsic characteristic and thus may not be as outwardly apparent or overt. However, these two forms of discrimination may lead to similar negative outcomes as they both display prejudices and bias towards aspects of their self-identity. Ultimately, SES discrimination experiences may lead to confused sentiments about one's place in society, which is observed in the disconnect surrounding cultural mismatch and the discrepancies in social norms that low-SES and first-generation college students face when attending college.

Cultural Mismatch

In university settings, independent skills (e.g., focusing on individual development) are more valued and emphasized in comparison to interdependent skills (e.g., being part of a community) (Stephens et al., 2012b). When the independent norms of a first-generation and/or low SES student's mainstream university, in which they are underrepresented, do not match the interdependent norms from their home, this is known as cultural mismatch (Stephens et al., 2012a; Stephens et al., 2015; Stephens et al., 2019). This mismatch can be noted in minority college students from lower-income and diverse backgrounds who later attend an educational

institution that is mostly middle/upper class and less diverse, thus creating a discrepancy in their cultures. People are more likely to follow social norms when in situations of insecurity when they are worried about what others think of them, and/or when they have low authority, all of which are situations that reflect the experiences of minority students attending college (Stephens et al., 2015). Experiencing cultural mismatch predicts underutilization of help-seeking behaviors for academic, financial, and psychological stressors (Chang et al., 2020). Additionally, prior research has demonstrated a direct link between cultural mismatch and a sense of belonging in college students, in which initial cultural mismatch predicts a lower sense of subjective fit and academic costs, and these disparities remain until college graduation (Phillips et al., 2020). It is important to understand the negative effects of cultural mismatch on low-income college students to examine what experiences and concepts may reduce these negative effects and allow these students to excel in college with minimal obstacles.

Although the effects of cultural mismatch have been widely studied, literature on the predictors of cultural mismatch is limited. Nevertheless, Hecht et al. (2021) theorized that cultural mismatch arises from threats to social identity in which students experience conflicts in their cultural values at their university. Experiences of discrimination have a negative impact on students' social identity, particularly for ethnic and racial minority students (Verkuyten et al., 2019) along with threatening one's social acceptance and control over their life (Richman & Leary, 2009). When discrimination threatens one's social identity, it also generates a greater sense of cultural mismatch, which may also be true for SES discrimination experiences. To provide support for this theoretical framework, Feasel and colleagues (2023) analyzed the effects of discrimination on cultural mismatch. In this study, frequent SES and racial discrimination experiences predicted greater perceived cultural mismatch (Feasel et al., 2023). To our knowledge, prior to this study, there had not been empirical research that examined the relationship between discrimination and cultural mismatch, and this literature continues to be limited.

Sense of Belonging

Humans are fundamentally motivated to feel a sense of belonging and form meaningful relationships (Baumeister & Leary, 2000). Unfortunately, along with experiencing cultural discrepancies while attending university, many minority and low-SES students experience a low sense of belonging. In fact, minority students have a lower sense of belonging due to many factors including discrimination, cultural mismatch, and the lack of diversity experienced at their university. Racial-ethnic minority and first-generation students report lower levels of belonging at 4-year universities and experience greater uncertainty regarding their belonging (Ostrove & Long, 2007; Walton & Cohen, 2007). Students who do not necessarily "fit" the mold of most universities, such as having independent norms or coming from middle/upper-class backgrounds, are less likely to feel a high sense of belonging as they do not share similarities with most other students attending the same college. The challenges associated with transitioning to college make it difficult for low-SES college students to align their status at home to their status at college, thus resulting in a drop in their sense of belonging ([Ostrove &](#)

[Long, 2007](#)). Correspondingly, Phillips et al. (2020) theorized that the distress accompanied by cultural mismatch may affect how low-SES and minority students perceive their belonging within the context of their university. This distress can create a constant negative cycle where low subjective belonging leads to a decrease in social engagement, which then continues to reduce a sense of belonging in college students (Walton and Cohen, 2011). Perceived belonging tremendously impacts on college students and the likelihood that they will remain in college and graduate. In fact, O’Keeffe (2013) recognizes belonging as a key factor in determining student retention. While many negative college experiences reduce students’ sense of belonging, it is important to find what explains these relationships. And because belonging has such a big impact on college students’ retention, it causes these negative experiences.

The Current Research

Even though both discrimination and cultural mismatch have been shown to negatively affect minority students, no prior research has examined the simultaneous effects of discrimination and cultural mismatch on a sense of belonging in low-SES and/or first-gen college students. The current study tested a mediational model in which cultural mismatch explains the relationship between discrimination and a sense of belonging in college students, refer to Figure 1. We proposed that experiencing SES discrimination indirectly predicts lower feelings of belonging by generating higher feelings of cultural mismatch in a college context. More discrimination encounters create feelings of desolation and rejection, thus generating greater feelings of perceived cultural mismatch, leading to lower feelings of belonging. Therefore, we hypothesize that those with more frequent experiences of discrimination will perceive a greater cultural mismatch. Sequentially, higher cultural mismatch will lead to decreased belonging. We tested this among a sample of low-income and/or first-generation Latinx college students (study 1) and a sample of low-income and/or first-generation college students (study 2) .

[Figure 1]

Study 1: Longitudinal Design

Method

Using a longitudinal design, Study 1 investigated whether experiencing discrimination at college reduces a sense of belonging among low-socioeconomic students over the first three years of college by increasing feelings of cultural mismatch.

Participants

All participants were undergraduate students at the University of California, Santa Barbara (UCSB). A few weeks before the start of the Fall 2016 school year, participants were invited to participate in a study about the college transition and were told the study would take place

during the first three weeks of the Fall quarter. All participants were incoming first-year students who identified themselves as Latinx and were determined by the university as either first-generation students or from a low-income household with family income less than \$50,000 (N=818). Four hundred and four students expressed interest in participation and provided their contact information. All interested students were contacted, and the initial 300 respondents were invited to participate throughout the first three weeks of the Fall quarter of 2016 (T1).

The inclusion criteria were measured again in the lab by asking participants about their racial and ethnic identities, their annual family income while in high school, and their parents' highest level of education. Students who self-identified as Latinx and who had a family income less than \$50,000 or who were first-generation college students (neither of their parents graduated from college) were included in the sample. T1's final sample size was 273 low-income/first-generation Latinx incoming college students. All participants consented to be followed up: 233 students participated in the follow-up at the end of their first year of college (T2), 208 students participated at the end of their second year (T3), and 177 students participated at the end of their third year (T3). The current analysis includes participants with complete data for all primary measures, leaving a final sample size of 160 participants. Participants' ages ranged from 18 to 20 years old; the majority were women (80.0%) and first-generation to college (63.8%); self-reported family income ranged from \$4,000 to \$165,000 (Mdn = \$35,000, M = \$40,842, SD = \$26,635).

Procedures

The data set came from a longitudinal data set that followed students from the beginning of their first quarter at their college, UC Santa Barbara, to the end of their third year.

Time 1. T1 assessment took place upon college entry in the fall of 2016. Participants completed a measure of initial belonging upon entering college and were compensated \$40.

Time 2. T2 assessment took place at the end of the student's first year of college in the spring of 2017. Participants completed a measure of the frequency of perceived SES discrimination during their first year of college and were compensated \$40.

Time 3. T3 assessment took place at the end of the student's second year of college in the spring of 2018. Participants completed a measure of their perceived cultural mismatch at college. Participants were compensated \$40.

Time 4. T4 assessment took place at the end of students' third year of college in the spring of 2019. Participants completed a measure of perceived belonging at their college over the prior year and were compensated \$40.

Primary Measures

SES Discrimination

SES discrimination was measured at T2 using a single item that stated, "During your time in college, how often did you experience discrimination due to your social class/background?". Participants replied on a scale of 1 (Never) to 5 (All the time). Higher responses indicated more frequent perceived SES discrimination.

Cultural Mismatch

Cultural mismatch was measured at T3 using a 7-item Likert scale (1 = strongly disagree to 7 = strongly agree) measuring how well they felt their background fit in at college (e.g., "I'm afraid that my background is incompatible with my identity as a university student" and "I have to change myself to fit in at UCSB"). Higher responses indicated a greater cultural mismatch.

Sense of Belonging

Belonging was measured at T1 and again at T4 using a 5-item scale adapted from Good et al. (2012). Participants indicated their level of belongingness at their college (e.g., "I feel that I belong at UCSB" and "I feel like I am a part of the UCSB community"). Responses ranged from 1 (Strongly Disagree) to 7 (Strongly Agree), with higher numbers indicating a greater sense of belonging.

Results

Data Analysis Strategy

We hypothesized that experiencing SES discrimination at college (T2) would indirectly predict lower levels of belonging (T4) by creating greater feelings of cultural mismatch (T3). To test this hypothesis, we conducted a mediational analysis using the PROCESS macro for SPSS (Hayes, 2022). T1 belonging was included as a covariate to control for the effect of belonging upon college entrance affecting belonging at T4 and to predict changes in belonging over students' first three years of college.

Correlations between study variables

The means and standard deviations of the Study 1 variables are included in Table 1. As hypothesized, SES discrimination (T2) and cultural mismatch (T3) were associated with belonging (T4). SES discrimination at T2 had a marginally significant association with lower belonging at T4, $r(160) = -.15$, $p = .065$, and was significantly correlated with a greater cultural mismatch at T3, $r(160) = .37$, $p < .001$. Cultural mismatch at T3 was significantly correlated with belonging at T4, $r(160) = -.32$, $p < .001$.

[Table 1]

Model Results

We ran a mediational model to test our hypotheses. The direct effect of SES discrimination on belonging was not significant, $B = 0.9$, $\beta = -.07$, $p = .379$. In other words, when controlling for cultural mismatch, SES discrimination was not directly associated with lower belonging. However, as predicted, the effect of SES discrimination was significantly mediated by the perceived cultural mismatch in a university context, refer to Figure 2. More frequent SES discrimination experiences at T2 significantly predicted greater perceived cultural mismatch at T3 in a university context, $B = .49$, $\beta = .37$, $p < .001$. In turn, a greater perceived cultural mismatch at T3 significantly predicted decreased belonging from T1 to T4, $B = 2.4$, $\beta = -.25$, $p = .002$. The indirect effect of SES discrimination on belonging through cultural mismatch was significant, CI $[-.22, -.03]$. These combined findings from Study 1 support the proposed mediational model that the more SES discrimination experienced predicts greater perceived cultural mismatch, which then predicts lower levels of belonging over time. Results did not change when accounting for belonging at T1 (belonging they felt upon entering college).

[Table 2]

Study 2: Cross-Sectional Design

In Study 2, we used a cross-sectional design to investigate whether discrimination affects the sense of belonging in low-socioeconomic students via cultural mismatch, using a more robust measure of SES discrimination.

Participants

All participants were college undergraduate students. They were recruited through Prolific and subsequently completed the survey on Qualtrics. To ensure that the participants were either low-income or first-generation, we included those who were from low-income households, with a family income of less than 50,000 and/or those who answered "yes" to the question "Are you the first member of your immediate family to attend college?" ($N=98$). Forty-one participants declared being first-generation college students. We excluded eight students for missing the attention check in the survey and four other students because they were graduate students. The final sample size was 86 and was determined by the available budget for participant payment. Thirty-eight of the participants identified as women, Thirty-eight identified as men, and ten identified as non-binary. The race/ethnic makeup of the sample was 48.8% White ($N = 42$), 14% Hispanic ($N = 12$), 10.5% Asian ($N = 9$), 8.1% Black, and 18.6% other ($N = 16$). The average family income was \$35,259.42 ($Mdn = 32000$; $SD = 21666.5$).

Procedure

In the present study, the participants were provided with a survey designed using Qualtrics. Participants were allowed to take the survey on any electronic device, such as their cell phone,

laptop, and phone. All participants voluntarily participated with the knowledge of being compensated \$1 and signed a consent form before participating in the study.

Primary Measures

SES discrimination was measured using a 5-item Likert scale (1 = *Never* to 5 = *All the time*) measuring how often they experience setbacks due to their social class/background (e.g., "*People act as if they are better than you are*" and "*You are called names or insulted*"). Higher responses indicated more frequent experiences of SES discrimination.

We measured the other primary measures, perceived cultural mismatch and perceived sense of belonging, using the same methods as Study 1. We adapted the measures to the current study by asking participants to answer the measures in terms of the college they were currently attending (e.g., "*I have to change myself to fit in at my college*"; "*I feel that I belong at my college*").

Results

Data Analysis Strategy

We hypothesized that experiencing SES discrimination would predict decreased belonging by creating greater feelings of cultural mismatch in first-generation and/or low-income college students. We ran a mediational model to test this hypothesis using the PROCESS macro for SPSS (Hayes, 2022).

Correlations between study variables

The means and standard deviations of the study 2 variables are included in Table 2. As hypothesized, SES discrimination and cultural mismatch were significantly correlated with belonging. SES discrimination was significantly associated with belonging, $r(86) = -.24$, $p = .024$, and was also significantly associated with cultural mismatch, $r(86) = .34$, $p = .001$. Additionally, cultural mismatch significantly correlated with belonging, $r(86) = -.53$, $p < .001$.

[Table 2]

Model Results

Similar to study 1, there was not a significant direct effect of SES discrimination on belonging when controlling for cultural mismatch, $B = -.11$, $\beta = -.07$, $p = .456$. However, there was a significant total effect of SES discrimination on belonging, $B = -.35$, $\beta = -.24$, $p = .024$. As predicted, the effects of SES discrimination on belonging were significantly mediated by perceived cultural mismatch in college students. A higher frequency of SES discrimination experiences significantly predicted greater perceived cultural mismatch, $B = .52$, $\beta = .34$,

$p = .002$. In turn, greater perceived cultural mismatch significantly predicted decreased belonging, $B = .46$, $\beta = -.50$, $p < .001$. The indirect effect of SES discrimination on belonging via cultural mismatch was significant, CI $[-.44, -.08]$. These findings from study 2 further provide support that cultural mismatch mediates the relationship between SES discrimination and belonging, refer to Figure 3.

[Figure 3]

Discussion

While attending college, first-generation and/or low-income students may face many negative experiences, such as SES discrimination and cultural mismatch, which may lower their sense of belonging. Developing literature examines the negative experiences that these students face to reduce the consequences. The current research contributes to this literature by examining the association between SES discrimination and cultural mismatch and their impact on students' sense of belonging. We examined these variables in a college setting, specifically with first-generation and/or low-SES students, as they are more likely to experience bias based on their social status. Additionally, these students experience a greater mismatch between their home and college as they come from lower-income backgrounds, typically characterized by interdependent norms, and attend middle/upper class institutions, which generally prioritize independent norms. Therefore, we hypothesized that frequent SES discrimination experiences would predict cultural mismatch, contributing to decreased belonging in low-SES and/or first-generation college students.

As hypothesized, college students who had experienced more SES discrimination felt more mismatch between their home culture and university culture and, in turn, experienced decreased belonging. This mediational pathway was found to be significant in both studies. In study 1, we found support for this model among a sample of low-SES and/or first-gen Latinx college students throughout their first three years. In study 2, we replicated study 1 results in a cross-sectional study where our sample consisted of low-SES and/or first-gen college students from various racial/ethnic backgrounds. Overall, experiencing more feelings of incompatibility between students' background and their university culture was a significant mediator between social-status discrimination and belonging in college students.

Contrary to prior research displaying the negative effects of discrimination on belonging, SES discrimination did not have a significant, direct relationship with a perceived sense of belonging after accounting for cultural mismatch. We theorize that this is because social-status discrimination must first lead to other negative college outcomes, such as increasing feelings of cultural mismatch and status-based identity uncertainty (Feasel et al., 2023). These feelings of uncertainty, confusion, and incongruity with one's culture and identity may then contribute to reduced belonging in their college environment. SES discrimination indirectly affects the sense of belonging in low-SES and first-generation students by generating conflict in one's self-view, and as a result, students feel less belonging.

Past research has shown that SES discrimination has negative effects on physiological health, mental health, and sleep (Ren et al., 1999; Van Dyke et al., 2016; Van Dyke et al., 2017), but this research remains limited, especially in comparison to the thorough investigations of the impacts of other forms of discrimination, such as racial discrimination. The present research contributes to the limited research on SES discrimination outcomes by examining its effects on cultural mismatch and belonging. We theorized that SES discrimination would have similar negative outcomes as racial discrimination due to both being acts of prejudice based on key components of one's identity. Racial discrimination has been directly associated with low belonging in college students (Hussain and Jones, 2021; Levin et al., 2006), but the same has not been empirically demonstrated for SES discrimination. Based on past research demonstrating a positive association between discrimination and cultural mismatch (Feasel et al., 2023), we speculate that SES discrimination may lead to other outcomes that then predict decreased belonging.

The present research replicates the finding that SES discrimination predicts greater feelings of cultural mismatch in college students. In general, this study contributes to the literature by evaluating negative college experiences, such as SES discrimination and cultural mismatch, how they are induced, and their outcomes. Consequently, the results of this study can assess what leads to negative outcomes in college students and assist in reducing the negative consequences of these experiences. Low-income and first-generation college students experience a variety of obstacles, and this research can assist institutions in creating resources on campus to aid these students. For example, producing mentorship programs for students in which they are paired with older undergraduate or graduate students with similar cultural backgrounds may encourage them to feel a greater sense of community in their college environment. The mentors in such programs may also be able to direct low-SES and first-generation students toward resources that they believed were helpful to them and would be helpful to those of similar cultural backgrounds. Therefore, by targeting feelings of imbalance between one's home culture and college culture, the consequences of negative experiences, such as SES discrimination, may be prevented.

Limitations and Future Work

This research focused on low-SES and first-generation college students. One limitation, specifically in Study 1, is that we used a single item to measure SES discrimination: "How often did you experience discrimination due to your social class/background?". Although we included a scale to measure SES discrimination in Study 2, this second study was cross-sectional. Using a scale in Study 1 would have provided a clearer overview of SES discrimination such that the statements would clarify the specific acts of discrimination (e.g., "You are treated with less respect than other people are" and "You are threatened or harassed"). Future research might utilize a scale to measure SES discrimination with a more complex longitudinal design to address these limitations.

In Study 2, several limitations were related to the study's population. First, the sample size was relatively small since it contained 86 participants. Due to the fact that we wanted only to include participants who were low-SES and/or first-generation, we limited the participant pool to only those whose family income was less than \$50,000 a year and/or who were first-generation, producing a reduced sample size. Further, the sample was not greatly diverse, as 48.8% of the population was White. We suggest future research to collect a greater number of participants to strengthen the support for our findings and obtain a more diverse sample. Obtaining a population with greater diversity allows for a greater understanding of cultural differences among college students, permitting the research to be more generalizable to different cultures and racial/ethnic groups. For example, comparing this effect with White college students against racial/ethnic minority students allows for the examination of differences within different cultural/ethnic groups.

Finally, future research should examine other outcomes of SES discrimination and predictors of cultural mismatch. One other potential outcome of SES discrimination is stress. Racial discrimination has continued to be associated with stress, which is explained through a model regarding racism-related stress (Carter, 2007). This model describes how members of racial/ethnic minority groups not only feel general stress due to their circumstances but also feel stress related to their identification as a member of a marginalized minority group. Taking this into account, people from low-income backgrounds may also feel this stress related to their identity as having low socioeconomic status, especially when matriculating into an educational institution containing a large population of students with middle/upper-class backgrounds. One other potential predictor of cultural mismatch is access to resources. Stephens and colleagues (2012) describe that first-generation students experience greater adversity when transitioning to college due to their limited access to economic and academic resources. Therefore, we suggest future research to observe if the perceived amount of resources first-generation and low-income students have access to affects their feelings of incongruity between their home and college culture.

Conclusion

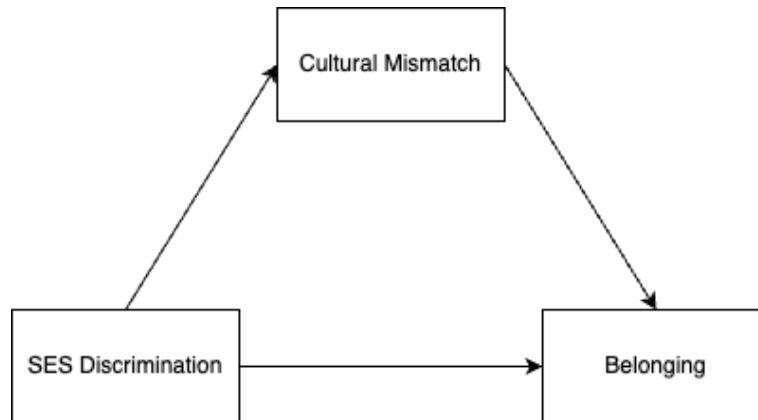
Discrimination and feelings of cultural mismatch have negative effects on different college experiences, especially for low-income and first-generation college students. However, little is known about the effects of discrimination based on social status as well as what leads to cultural mismatch. The current study replicated prior findings that frequent SES discrimination experiences are associated with greater feelings of cultural mismatch and empirically demonstrated a negative relationship between SES discrimination and a sense of belonging. Research on adverse experiences in college often focuses on outcomes related to racial identities, such as racial discrimination. However, to obtain a comprehensive understanding of why negative outcomes occur in a variety of minority groups, such as low-income and first-generation college students, it is necessary to observe experiences specific to these groups. Future research needs to examine the effects of prejudice based on social status to

decipher what can inhibit the repercussions as well as find resources to assist students experiencing SES discrimination.

Figures

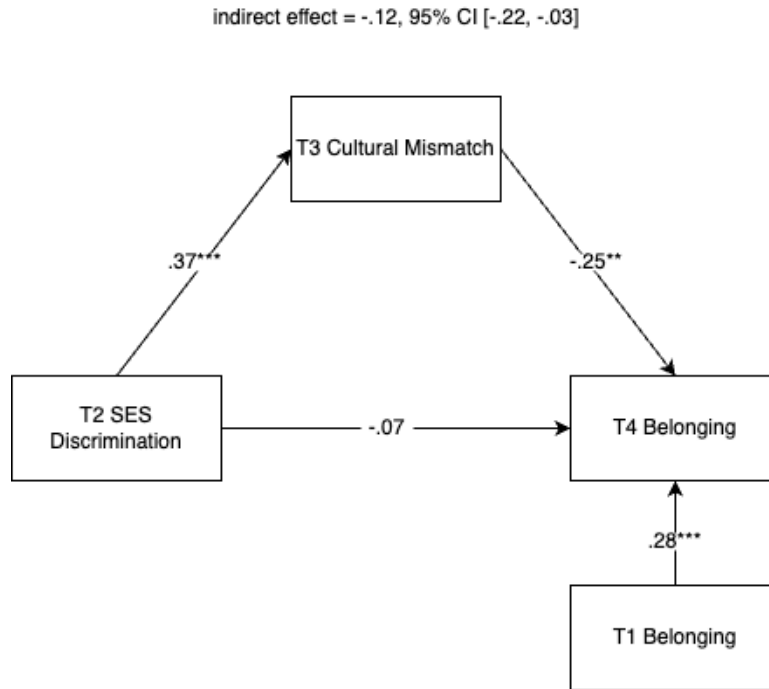
Figure 1

Mediational Model



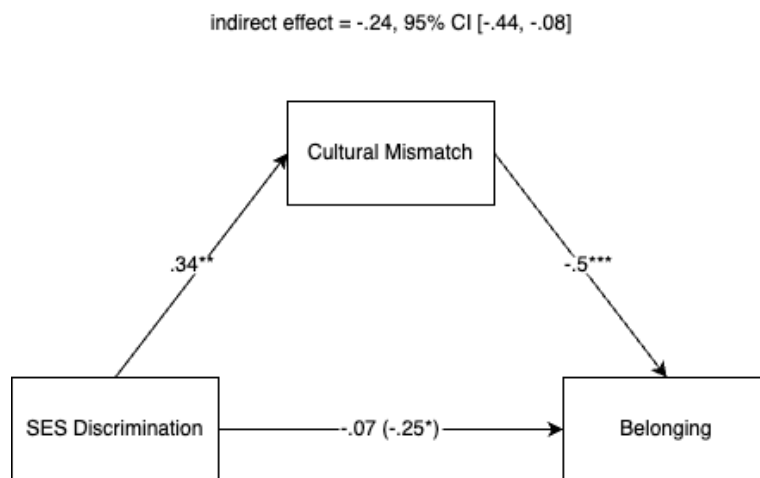
Note. A diagram of the current study's mediational model that displays cultural mismatch as a mediator between SES discrimination and belonging.

Figure 2
Study 1 Results



Note. All results included are the standardized coefficients. The direct relationship between SES discrimination (T2) and belonging (T4) is not significant. The mediational pathway is significant as well as the indirect effect.

Figure 3
Study 2 Results



Note. All results included are the standardized coefficients. The direct relationship between SES discrimination and belonging is not significant. The mediational pathway is significant as well as the indirect effect. These results are similar to those of Study 2 and were replicated in a cross-sectional study that was not limited to racial/ethnic minority college students.

Tables

Table 1

Study 1 means, standard deviations, and correlations with confidence intervals

Variable	M	SD	1	2	3
1. T1 Belonging	5.62	1.18			
2. T4 Belonging	5.57	1.06	.35** [.22, .48]		
3. T2 SES Discrimination	1.68	0.93	.06 [-.07, .19]	-.13 [-.27, .02]	
4. T3 Cultural Mismatch	3.26	1.22	-.22** [-.35, -.09]	-.33** [-.46, -.18]	.41** [.28, .52]

*Note. M and SD are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. The confidence interval is a plausible range of population correlations that could have caused the sample correlation (Cumming, 2014). ** indicates $p < .01$.*

Table 2

Study 2 means, standard deviations, and correlations with confidence intervals

Variable	M	SD	1	2
1. SES Discrimination	2.49	0.89		
2. Cultural Mismatch	3.00	1.35	.34** [.14, .51]	
3. Belonging	4.96	1.25	-.24* [-.43, -.03]	-.53** [-.66, -.35]

*Note. M and SD are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. The confidence interval is a plausible range of population correlations that could have caused the sample correlation (Cumming, 2014). * indicates $p < .05$. ** indicates $p < .01$.*

Appendix

Questions for Perceived SES Discrimination

Study 1

How often did you experience discrimination due to your social class/background?

Study 2

In your day-to-day life, how often do any of the following things happen to you because of your social class/background? (Likert scale with answers ranging from 1 = *never* to 5 = *all the time*):

1. *You are treated with less courtesy than other people are.*
2. *You are treated with less respect than other people are.*
3. *You receive poorer service than other people at restaurants or stores.*
4. *People act as if they think you are not smart.*
5. *People act as if they are afraid of you.*
6. *People act as if they think you are dishonest.*
7. *People act as if they are better than you are.*
8. *You are called names or insulted.*
9. *You are threatened or harassed.*

Scale for Perceived Cultural Mismatch

Please indicate how much you agree or disagree with the following statements (Likert scale with answers ranging from 1 = *strongly disagree* to 7 = *strongly agree*):

1. *People at my college do not understand my background.*
2. *I have to change myself to fit in at my college.*
3. *My background is incompatible with the new people I have met at my college.*
4. *I am unable to talk to my friends at school about my family or my life back at home.*
5. *My background is compatible with my life at my college.*
6. *I'm afraid that my background is incompatible with my identity as a college student.*
7. *I cannot talk to my friends or family at home about what it's like at college.*

Scale for Perceived Belonging

Please indicate your level of agreement with the following statements about being at UCSB/your college (Likert scale with answers ranging from 1 = *strongly disagree* to 7 = *strongly agree*):

1. *I feel that I belong at my college.*
2. *I consider myself a member of my college.*
3. *I feel like I am a part of my college community.*
4. *I feel a connection with my college.*
5. *Based on my academic credentials, I deserve to be at my college.*
6. *Indicate that you somewhat agree with this statement.*

References

[1] Abel, J. R., & Deitz, R. (2014). Do the benefits of college still outweigh the costs?. *Current issues in economics and finance*, 20(3), 1-12.

[2] Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497-529.
<https://doi.org/10.1037/0033-2909.117.3.497>

- [3] Brand, J. E., & Xie, Y. (2010). Who benefits most from college? Evidence for negative selection in heterogeneous economic returns to higher education. *American sociological review*, 75(2), 273-302. <https://doi.org/10.1177/0003122410363567>
- [4] Carter, R. T. (2007). Racism and Psychological and Emotional Injury: Recognizing and Assessing Race-Based Traumatic Stress. *The Counseling Psychologist*, 35(1), 13-105. <https://doi.org/10.1177/0011000006292033>
- [5] Chang, J., Wang, S., Mancini, C., McGrath-Mahrer, B., & Orama de Jesus, S. (2020). The complexity of cultural mismatch in higher education: Norms affecting first-generation college students' coping and help-seeking behaviors. *Cultural Diversity and Ethnic Minority Psychology*, 26(3), 280-294. <https://doi.org/10.1037/cdp0000311>
- [6] Chen, R., & DesJardins, S. L. (2010). Investigating the Impact of Financial Aid on Student Dropout Risks: Racial and Ethnic Differences. *Journal of Higher Education*, 81(2), 179-208. <https://doi.org/10.1353/jhe.0.0085>
- [7] Cole, E. R., & Omari, S. R. (2003). Race, class and the dilemmas of upward mobility for African Americans. *Journal of Social issues*, 59(4), 785-802. <http://dx.doi.org/10.1046/j.0022-4537.2003.00090.x>
- [8] Dale, S. B., & Krueger, A. B. (2002). Estimating the payoff to attending a more selective college: An application of selection on observables and unobservables. *The Quarterly Journal of Economics*, 117(4), 1491-1527. <https://doi.org/10.1162/003355302320935089>
- [9] Destin, M., Rheinschmidt-Same, M., & Richeson, J. A. (2019). Implications of intersecting socioeconomic and racial-ethnic identities for academic achievement and well-being. In
- [10] D. A. Henry, E. Votruba-Drzal & P. Miller (Eds.), *Advances in child development and behavior: Child development at the intersection of race and SES (Vol. 57); Advances in child development and behavior: Child development at the intersection of race and SES (Vol. 57)* (pp. 149-167, Chapter xxiv, 313 Pages). Elsevier Academic Press. <https://doi.org/10.1016/bs.acdb.2019.04.001>
- [11] Dover, T. L., Major, B., & Glace, A. M. (2020). Discrimination, health, and the costs and benefits of believing in system fairness. *Health Psychology*, 39(3), 230-239. <https://doi.org/10.1037/hea0000841>
- [12] Feasel, S. H., Dover, T. L., Small, P. A., & Major, B. (2023). Discrimination and Perceived

Cultural Mismatch Increase Status-Based Identity Uncertainty. *Personality and Social Psychology Bulletin*, 0(0). <https://doi.org/10.1177/01461672231163736>

[13] Good, C., Rattan, A., & Dweck, C. S. (2012). Why do women opt out? Sense of belonging and women's representation in mathematics. *Journal of personality and social psychology*, 102(4), 700. <https://doi.org/10.1037/a0026659>

[14] Hayes, A. F. (2022). Introduction to mediation, moderation, and conditional process analysis, third edition: A regression-based approach. Guilford Publications.

[15] Hecht, C. A., Priniski, S. J., Tibbetts, Y., & Harackiewicz, J. M. (2021). Affirming both independent and interdependent values improves achievement for all students and mitigates cultural mismatch for first-generation college students. *Journal of Social Issues*, 77(3), 851-887. <https://doi.org/10.1111/josi.12416>

[16] Heitner, K., & Sherman, K. C. (2013). The role of career colleges: Implications for serving racial and ethnic minority students. *Journal of Psychological Issues in Organizational Culture*, 3, 78-103. <https://doi.org/10.1002/jpoc.21098>

[17] Heikamp, T., Phalet, K., Van Laar, C., & Verschueren, K. (2020). To belong or not to belong: Protecting minority engagement in the face of discrimination. *International Journal of Psychology*, 55(5), 779-788. <https://doi.org/10.1002/ijop.12706>

[18] Hurtado, S., & Carter, D. F. (1997). Effects of college transition and perceptions of the campus racial climate on Latino college students' sense of belonging. *Sociology of Education*, 70(4), 324-345. <https://doi.org/10.2307/2673270>

[19] Hussain, M., & Jones, J. M. (2021). Discrimination, diversity, and sense of belonging: Experiences of students of color. *Journal of Diversity in Higher Education*, 14(1), 63-71. <https://doi.org/10.1037/dhe0000117>

[20] Hwang, W., & Goto, S. (2008). The impact of perceived racial discrimination on the mental health of Asian American and Latino college students. *Cultural Diversity and Ethnic Minority Psychology*, 14(4), 326-335. <https://doi.org/10.1037/1099-9809.14.4.326>

[21] Levin, S., Van Laar, C., & Foote, W. (2006). Ethnic Segregation and Perceived Discrimination in College: Mutual Influences and Effects on Social and Academic Life. *Journal*

of Applied Social Psychology, 36(6), 1471-1501.

<https://doi.org/10.1111/j.0021-9029.2006.00068.x>

[22] Loeb, E., & Hurd, N. M. (2019). Subjective social status, perceived academic competence, and academic achievement among underrepresented students. *Journal of College Student Retention: Research, Theory and Practice*, 21(2), 150-165.

<https://doi-org.proxy.library.ucsb.edu:9443/10.1177/1521025117696821>

[23] Mallett, R. K., Mello, Z. R., Wagner, D. E., Worrell, F., Burrow, R. N., & Andretta, J. R. (2011). Do I belong? It depends on when you ask. *Cultural Diversity and Ethnic Minority Psychology*, 17(4), 432-436.

<https://doi.org/10.1037/a0025455>

[24] Melguizo, T., & Wolniak, G. C. (2012). The earnings benefits of majoring in STEM fields among high achieving minority students. *Research in Higher Education*, 53(4), 383-405.

<https://doi.org/10.1007/s11162-011-9238-z>

[25] Montoro, J. P., Kilday, J. E., Rivas-Drake, D., Ryan, A. M., & Umaña-Taylor, A. J. (2021). Coping with discrimination from peers and adults: Implications for adolescents' school belonging. *Journal of Youth and Adolescence*, 50(1), 126-143.

<https://doi.org/10.1007/s10964-020-01360-5>

[26] Niwa, E. Y., Way, N., & Hughes, D. L. (2014). Trajectories of ethnic-racial discrimination among ethnically diverse early adolescents: Associations with psychological and social adjustment. *Child Development*, 85(6), 2339-2354.

<https://www.proquest.com/scholarly-journals/trajectories-ethnic-racial-discrimination-among/doi-cview/1645208194/se-2>

[27] O'Keeffe, P. (2013). A sense of belonging: Improving student retention. *College Student Journal*, 47(4), 605-613.

<https://www.proquest.com/scholarly-journals/sense-belonging-improving-student-retention/doi-cview/1544983797/se-2>

[28] Oliver, M. L., Rodriguez, C. J., & Mickelson, R. A. (1985). Brown and Black in White: The social adjustment and academic performance of Chicano and Black students in a predominantly White university. *The Urban Review*, 17(1), 3-24.

<https://doi.org/10.1007/BF01141631>

[29] Ostrove, J. M., & Long, S. M. (2007). Social class and belonging: Implications for college adjustment. *Review of Higher Education: Journal of the Association for the Study of Higher Education*, 30(4), 363-389. <https://doi.org/10.1353/rhe.2007.0028>

- [30] Phillips, L. T., Stephens, N. M., Townsend, S. S., & Goudeau, S. (2020). Access is not enough: Cultural mismatch persists to limit first-generation students' opportunities for achievement throughout college. *Journal of Personality and Social Psychology*, 119(5), 1112. <https://doi.org/10.1037/pspi0000234>
- [31] Padgett, R. D., Johnson, M. P., & Pascarella, E. T. (2012). First-generation undergraduate students and the impacts of the first year of college: Additional evidence. *Journal of College Student Development*, 53(2), 243-266. <https://doi.org/10.1353/csd.2012.0032>
- [32] Pascarella, E. T., Pierson, C. T., Wolniak, G. C., & Terenzini, P. T. (2004). First-generation college students: Additional evidence on college experiences and outcomes. *The Journal of Higher Education*, 75(3), 249-284. <https://doi.org/10.1080/00221546.2004.11772256>
- [33] Smart Richman, L., & Leary, M. R. (2009). Reactions to discrimination, stigmatization, ostracism, and other forms of interpersonal rejection: A multimotive model. *Psychological Review*, 116(2), 365-383. <https://doi.org/10.1037/a0015250>
- [34] Ren, X. S., Amick, B. C., & Williams, D. R. (1999). Racial/Ethnic Disparities in Health: The Interplay Between Discrimination and Socioeconomic Status. *Ethnicity & Disease*, 9(2), 151-165. <http://www.jstor.org/stable/45409192>
- [35] Stephens, N. M., Townsend, S. S. M., Markus, H. R., & Phillips, L. T. (2012). A cultural mismatch: Independent cultural norms produce greater increases in cortisol and more negative emotions among first-generation college students. *Journal of Experimental Social Psychology*, 48(6), 1389-1393. <https://doi.org/10.1016/j.jesp.2012.07.008>
- [36] Stephens, N. M., Fryberg, S. A., Markus, H. R., Johnson, C. S., & Covarrubias, R. (2012b). Unseen disadvantage: How American universities' focus on independence undermines the academic performance of first-generation college students. *Journal of Personality and Social Psychology*, 102(6), 1178-1197. <https://doi.org/10.1037/a0027143>
- [37] Stephens, N. M., & Townsend, S. S. M. (2015). The norms that drive behavior: Implications for cultural mismatch theory. *Journal of Cross-Cultural Psychology*, 46(10), 1304-1306. <https://doi-org.proxy.library.ucsb.edu:9443/10.1177/0022022115600264>
- [38] Stephens, N. M., Townsend, S. S. M., & Dittmann, A. G. (2019). Social-class disparities in higher education and professional workplaces: The role of cultural mismatch. *Current Directions in Psychological Science*, 28(1), 67-73. <https://doi-org.proxy.library.ucsb.edu:9443/10.1177/0963721418806506>

- [39] Van Dyke, M. E., Vaccarino, V., Quyyumi, A. A., & Lewis, T. T. (2016). Socioeconomic status discrimination is associated with poor sleep in African-Americans, but not Whites. *Social Science & Medicine*, 153, 141-147. <https://doi.org/10.1016/j.socscimed.2016.02.012>
- [40] Van Dyke, M. E., Vaccarino, V., Dunbar, S. B., Pemu, P., Gibbons, G. H., Quyyumi, A. A., & Lewis, T. T. (2017). Socioeconomic status discrimination and C-reactive protein in African-American and White adults. *Psychoneuroendocrinology*, 82, 9-16. <https://doi.org/10.1016/j.psyneuen.2017.04.009>
- [41] Verkuyten, M., Thijs, J., & Gharaei, N. (2019). Discrimination and academic (dis) engagement of ethnic-racial minority students: A social identity threat perspective. *Social Psychology of Education*, 22(2), 267-290. <https://doi.org/10.1007/s11218-018-09476-0>
- [42] Walton, G. M., & Cohen, G. L. (2007). A question of belonging: Race, social fit, and achievement. *Journal of Personality and Social Psychology*, 92(1), 82-96. <https://doi.org/10.1037/0022-3514.92.1.82>
- [43] Walton, G. M., & Cohen, G. L. (2011). A brief social-belonging intervention improves academic and health outcomes of minority students. *Science*, 331(6023), 1447-1451. <https://doi.org/10.1126/science.1198364>