Article

A Diversity Ideology Intervention: Multiculturalism Reduces the Racial Achievement Gap

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Abstract

In the United States, underrepresented racial minority (URM) students continue to face psychological barriers that undermine their achievement and fuel disparities in academic outcomes. In the current research, we tested whether a multicultural ideology intervention could improve URM students' grade point averages (GPAs) during the first 2 years of college and thereby reduce the racial achievement gap. Specifically, first-year college students (N=407) read a diversity statement that represented the schools' diversity ideology in terms of either multiculturalism or colorblindness. URM students who read a multicultural diversity statement earned higher GPAs 2 years later compared to those who read a colorblind diversity statement. Furthermore, they earned higher GPAs compared to a nonparticipant campus-wide control group. The current study is the first to demonstrate that multiculturalism can increase the long-term academic outcomes of URM students in college.

Keywords

diversity, intervention, colorblind, multicultural, higher education

In the United States, college achievement critically impacts students' future success (Brand & Xie, 2010). Yet, African American, Latino, and Native American students—or underrepresented racial minority (URM) students—obtain lower grades and drop out of college at higher rates than their White and Asian counterparts (Musu-Gillette et al., 2017). Although structural barriers undoubtedly contribute to this racial achievement gap, subtle cues in the school environment (e.g., approach to diversity, curriculum) also play a role. For example, when universities overlook—rather than celebrate—the value and strength of students' different backgrounds or social group memberships (Schofield, 2007), this can lead URM students to feel poorly equipped to succeed there (Fryberg et al., 2013; Steele & Cohn-Vargas, 2013). These psychological experiences can undermine their academic performance (Chavous et al., 2016; Walton & Cohen, 2007).

Social psychologists have leveraged this understanding of the importance of psychological experiences to develop "wise" interventions aimed at closing achievement gaps (Stephens et al., 2014; Walton & Wilson, 2018). Wise interventions focus on changing how people understand themselves in their educational environments (e.g., whether students feel academically prepared; Stephens et al., 2014; Townsend et al., 2019). They do so in a way that initiates self-reinforcing processes that persist to improve students' long-term academic outcomes (Walton & Wilson, 2018). For example, by teaching students that

ability can grow and intelligence is malleable, a growth mindset intervention improved the psychological experience and long-term grades of URM students (Yeager & Dweck, 2012).

In the current research, we leverage the wise intervention approach to test a novel *multicultural ideology intervention*. To do so, we draw upon the literature on diversity ideologies or beliefs about how best to approach and manage diversity (Markus et al., 2000; Plaut, 2002). We theorize that representing a school's diversity ideology in terms of multiculturalism can improve URM students' GPAs, and thereby reduce the racial achievement gap. Further, in an exploratory manner, we consider the possibility that multiculturalism can do so by increasing URM students' engagement and improving the quality of their

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experiences in college (see our preregistration here http://bit.ly/OSF Link1).

Diversity Ideologies

U.S. colleges and universities frequently tout the importance of diversity. Yet they do so in different ways. The two most prominent diversity ideologies are colorblindness and multiculturalism (Rattan & Ambady, 2013). The core tenet of the colorblind diversity ideology is that social group differences, ¹ such as those due to race or social class, should be avoided (Plaut et al., 2018). Underlying this ideology is the assumption that if people simply avoid social group differences, they will no longer have the opportunity to discriminate or enact bias (Apfelbaum et al., 2012; Bonilla-Silva, 2003). Previous literature has operationalized colorblindness in one of two ways: by emphasizing individuals' unique identities or by emphasizing similarities across individuals (Plaut, 2002; Purdie-Vaughns et al., 2008; Schofield, 2007). When emphasizing individuals' unique identities, colorblindness asserts that people should be judged on the basis of individual achievement (Ryan et al., 2007). In contrast, when emphasizing similarities across individuals, colorblindness asserts that people are ultimately the same and should be treated without regard to their social group differences (Markus et al., 2000).

Multiculturalism offers an alternative approach to diversity, one that focuses on *attending* to social group differences. The multicultural ideology argues that social group differences are meaningful, motivating and can be a source of strength (Plaut, 2010; Stevens et al., 2008). Underlying this ideology is the assumption that people who are members of different social groups often have different experiences and perspectives, and therefore it is important to recognize and value these differences (Markus, 2008; Rattan & Ambady, 2013).

Diversity Ideologies and Academic Achievement

Interdisciplinary research suggests that exposure to multiculturalism has significant potential to benefit URM students in college. By recognizing and celebrating the values and strengths of different experiences (Schofield, 2007) multiculturalism can foster more positive academic experiences and engagement for underrepresented students (Banks, 2007; Brannon, Markus & Taylor, 2015; Dover, 2013; Hytten & Bettez, 2011; Sasaki & Vorauer, 2013; Sleeter, 1991, 2011; Steele & Cohn-Vargas, 2013; Townsend et al., 2019). For example, research on multicultural education and related interventions suggest that recognizing and celebrating students' differences are associated with an increased sense of agency, self-confidence, and engagement (Gurin et al., 2013; Nelson Laird et al., 2005; Sleeter, 2011).

Furthermore, lab and survey studies in social psychology suggest that exposure to multiculturalism improves URM students' psychological experiences and engagement-related outcomes. For example, exposure to multiculturalism (vs. colorblindness) increases racial and ethnic minorities' positive identification with their group and self-esteem (Verkuyten, 2005, 2009). Additionally, exposure to multiculturalism (vs. colorblindness) promotes racial and ethnic minorities' psychological engagement and persistence at work, increases their sense of having power, and enhances their self-efficacy (Gündemir, Dovidio, et al., 2017; Gündemir, Homan, et al., 2017; Plaut et al., 2009; Vorauer & Quesnel, 2017).

We theorize that these types of positive psychological experiences and engagement-related benefits should improve students' academic outcomes. Consistent with this theorizing, studies in social psychology suggest that exposure to multiculturalism has the potential to improve URM students' academic achievement. Research finds that URM students' exposure to multiculturalism (vs. colorblindness) leads to improved performance on cognitive and math tasks in the laboratory (Brannon et al., 2015; Holoien & Shelton, 2012; Wilton et al., 2015). Taken together, these prior studies suggest that multiculturalism should increase URM students' engagement and the quality of their experiences in college, which should, in turn, improve their academic performance.

Although previous research documents that multiculturalism can influence outcomes *related* to URM students' academic performance (e.g., cognitive tasks), research has yet to examine whether experimentally exposing URM students to multiculturalism can improve their *actual* academic performance in college (e.g., their GPAs). Additionally, beyond short-term lab studies, research has not examined whether multiculturalism can be translated into a wise intervention (i.e., one focused on changing students' experiences) that can foster long-term academic benefits (Walton & Wilson, 2018). In the first intervention of its kind, the present study tests whether multiculturalism can increase URM students' grades in college.

Current Research

In the current research, we test whether a multicultural ideology intervention can improve the grades of URM students and thereby reduce the racial achievement gap in college. Given that White and Asian students tend to obtain higher grades than URM students in college, we did not expect that they would benefit academically from the intervention. We test the four hypotheses outlined below. Three of these four hypotheses were preregistered (http://bit.ly/OSF_Link1). We did not preregister Hypothesis 2 pertaining to the campus-wide control condition because, at the time of the preregistration, we did not expect to have access to these data.

Hypothesis 1 (preregistered): Exposure to multiculturalism compared to colorblindness will improve the academic performance (i.e., grades) of URM students.²

Hypothesis 2 (not preregistered): Exposure to multiculturalism will improve the academic performance (i.e., grades) of URM students compared to students who did not participate in the intervention (i.e., whom we refer to as a *campus-wide control group*).

Hypothesis 3 (preregistered, exploratory): Exposure to multiculturalism compared to colorblindness will improve URM students' engagement in college and the quality of their college experiences. These improvements will help to explain the benefits of multiculturalism.

Hypothesis 4 (preregistered): Exposure to multiculturalism compared to colorblindness will not impact the grades of White and Asian students.

Method

Participants

Participants exposed to the intervention. Halfway through the fall term, we emailed all URM first-year students and a comparable number of White and Asian first-year students at a private, selective university and asked them to complete a survey. As our preregistration indicates, our target sample size was 600 participants to account for the 60% retention rate that we have observed in prior interventions (e.g., Stephens et al., 2014).

A total of 565 students participated. Twelve could not be included in the analyses because they were missing data central to our analyses (i.e., race and GPA). In our preregistration (http://bit.ly/OSF_Link2), which was created before we collected or analyzed the GPA data, we determined that we would exclude participants who did not pay attention to the manipulation (i.e., the diversity statement). Accordingly, we excluded 146 participants (n = 64 URM, n = 82 White and Asian) who said "no" to the attention check: "Did you pay attention to the content of the diversity statement you read?" Excluded participants were distributed comparably across the multicultural (n = 70) and colorblind (n = 76) conditions, $\chi^2(1) = .003$, p = .96. We used the remaining sample (n = 407 participants, 38% URMs) to examine the intervention's effects on students' 2-year cumulative GPAs.

Nonparticipants in the campus-wide control group. We had the opportunity to compare the GPA results from the two intervention conditions to data from a campus-wide control group (N = 1,317). This control group included all students who were in the same cohort as the intervention participants, but who did not participate in the intervention. There were 1,221 nonparticipants (n = 222 URMs) who had the necessary data to compare their 2-year cumulative GPAs to participants in the intervention conditions. Combined with participants exposed to the intervention (total N = 1,628), post hoc power analysis using G*Power (Faul et al., 2007) indicated that we achieved 62% power to detect the interaction effect ($\eta 2 = .004$) we observed for the academic performance outcome.

Procedure

Intervention. Participants were randomly assigned to one of the two intervention manipulations: a multicultural diversity statement (multicultural condition; n = 208) or a colorblind diversity statement (colorblind condition; n = 199). The

intervention was delivered during students' first term in college—a key transitional period when students were likely making sense of their experiences and especially receptive to information about their university's views of diversity (Cook et al., 2012; Walton, 2014).

Drawing on previous research on diversity ideologies and related interventions, we asked participants to read and evaluate a potential diversity statement for an incoming student guide, which served as our manipulation of the university's approach to diversity (Apfelbaum et al., 2016; Purdie-Vaughns et al., 2008; Stephens et al., 2012; Stephens et al., 2014). Although this was not the university's official diversity statement, we reasoned that reading about a potential diversity statement should give students an indication of what the school considers an appropriate way to think about and respond to diversity.

In both conditions, the diversity statement conveyed that the university valued and celebrated diversity and inclusion. The key difference between the two conditions was that the multicultural statement emphasized the value of diversity and inclusion by attending to social group differences, whereas the colorblind statement did so by avoiding social group differences (i.e., by emphasizing individuals' unique identities and similarities across individuals; Plaut, 2010). For example, in the multicultural condition, participants read, "It is our responsibility to leverage our differences as strengths to ensure that we create a diverse, equitable, and inclusive campus" and "only by learning about people with different backgrounds and viewpoints can we challenge our assumptions, test our ideas, and broaden our understanding of the world." In contrast, the colorblind diversity statement emphasized both similarities across individuals and individuals' unique identities. Participants in the colorblind condition read "It is our responsibility to leverage our similarities as strengths to ensure that we create a diverse, equitable, and inclusive campus" and "only by learning about the unique perspectives and qualities of each and every individual community member can we challenge our assumptions, test our ideas, and broaden our understanding of the world." See Supplementary Materials, section I(A), for the full diversity statements.

Immediately after reading the diversity statement, participants completed a short survey, which included an exercise to help them to internalize the intervention message (i.e., a *saying-is-believing* exercise; Stephens et al., 2014; Yeager & Walton, 2011) and a manipulation check to assess their perceptions of the messages conveyed in the intervention conditions. This survey also contained a variety of additional measures to assess their perceptions of the diversity statement and their anticipated experiences for their first year in college. None of these measures was influenced by the diversity ideology intervention. These additional measures and analyses are reported in the Supplemental Materials, section II(B).

End-of-year survey. To test exploratory Hypothesis 3, participants completed an end-of-year survey that contained a variety of measures assessing students' actual engagement and

experiences during their first year in college. None of these measures was influenced by the diversity ideology intervention. These measures and analyses are reported in the Supplemental Materials, section II(C). We speculate that these nonsignificant results could be because our end-of-year sample was highly underpowered. Indeed, of the 206 participants who completed the survey, only 79 were URM students. Post hoc power analysis using G*Power (Faul et al., 2007) indicated that we achieved 33% power to detect the largest interaction effect $(\eta^2=.011)$ we observed in the end-of-year measures.

Measures

Manipulation check. To assess whether the diversity statement effectively conveyed multiculturalism versus colorblindness, participants completed 2 items assessing the extent to which they perceived the diversity statement as "Recognizing and valuing differences [similarities]" on a scale from 1 (not at all) to 7 (very much).

Academic performance. The university registrar provided students' official grades for every term throughout their first 2 years in college. Following previous research (Walton & Cohen, 2011), we do not include the first-year fall term GPA in any GPA analyses because students' first-year fall term grades include academic outcomes (e.g., tests, assignments) that occurred before the intervention was delivered. To evaluate the long-term impact of the intervention, we examined the cumulative GPA of students at the end of their second year (i.e., students' cumulative GPA from their first winter term through their second spring term).

Results

Analysis Strategy

In our analyses, to increase the chance that any effects resulted from the intervention rather than preexisting skills and demographic differences, we controlled for a standard set of covariates utilized in previous interventions (Stephens et al., 2014; Townsend et al., 2019): participants' SAT scores, low-income status (i.e. whether students received Pell grants; not low income = 0, low income = 1), generation status (continuing generation = 0, first generation = 1), and gender (male = 0, female = 1). Our preregistration did not indicate that we would use covariates, nor did it indicate which statistical analyses we would employ. Nevertheless, our results are largely equivalent without covariates (see Supplementary Materials, section II [A:1]).

We obtained participants' academic and demographic information both from the university registrar and from the survey administered immediately after the intervention. For objective measures such as SAT scores, cumulative GPA, and low-income status, the analyses used data from the university registrar because we reasoned that these data would be more accurate than students' retrospective self-reports. However, for participants' current social identities (i.e., gender, race, and generation status), the analyses used participants' self-report

data from the survey. For any missing social identity data, the analyses used data from the registrar.

We grouped White and Asian students together in these analyses, given that both groups tend to have higher GPAs than other racial groups in college and would likely not benefit academically from exposure to multiculturalism (Hirschman & Wong, 1986; Kao & Thompson, 2003). Nevertheless, when we exclude Asian students from the analyses and compare URM to White students, the results are equivalent (see Supplemental Materials, section II [A:2–3]).

Manipulation check. To examine whether the diversity statements successfully conveyed the desired emphasis on recognizing and valuing differences versus similarities, we conducted two 2 (race: URM vs. White and Asian) \times 2 (condition: multicultural vs. colorblind) analyses of covariance (ANCOVAs) controlling for the covariates listed above. The first ANCOVA examined the extent to which participants perceived the diversity statement as recognizing and valuing differences. As expected, we found that participants in the multicultural condition viewed the diversity statement as recognizing and valuing differences significantly more (M = 6.16, SD = 1.23) than those in the colorblind condition (M = 5.38, SD = 1.22; F(1, 295) = 30.22, p < .001, $\eta^2 = .09$). There was no significant main effect of race, F(1, 295) = 0.32, p = .57, nor an interaction, F(1, 295) = 0.88, p = .35.

The second ANCOVA examined the extent to which participants perceived the diversity statement as recognizing and valuing similarities. As expected, we found that participants in the colorblind condition viewed the diversity statement as recognizing and valuing similarities significantly more (M = 5.31, SD = 1.56) than those in the multicultural condition (M = 4.09, SD = 1.55; F(1, 295) = 46.10, p < .001, $\eta^2 = .14$). There was no main effect of race, F(1, 295) = 1.54, p = .22, nor interaction effect, F(1, 295) = 0.02, p = .90. Together, results suggest that the diversity statements conveyed the intended messages.

Academic Performance

First, we tested our theorizing that multiculturalism can benefit the academic performance of URM students. To do so, we conducted a 2 (race: URM vs. White and Asian) \times 3 (condition: multicultural vs. colorblind vs. campus-wide control) ANCOVA controlling for the same set of covariates. We found a significant main effect of race, F(1, 1618) = 29.32, p < .001, $\eta^2 = .02$, and no main effect of intervention condition, F(2, 1618) = 1.84, p = .16, $\eta^2 = .002$. These main effects were qualified by a significant Race \times Intervention Condition interaction, F(2, 1618) = 3.38, p = .03, $\eta^2 = .004$.

Supporting Hypothesis 1, URM participants in the multicultural condition earned significantly higher GPAs than URM participants in the colorblind condition, p = .006, 95% confidence interval (CI) [.05, .29]. Furthermore, supporting Hypothesis 2, URM participants in the multicultural condition earned significantly higher GPAs than nonparticipants in the

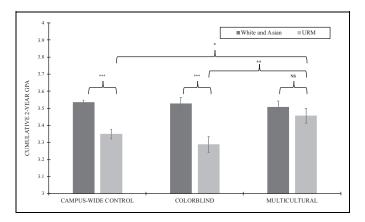
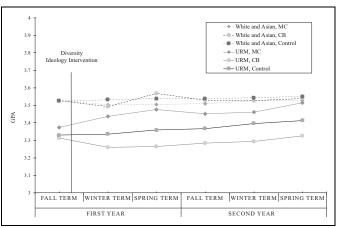


Figure 1. Cumulative 2-year grade point average (GPA) as a function of race and intervention condition. *Note.* Marginal adjusted means are presented. Error bars show standard errors of the mean. Key contrasts are highlighted in this figure.

campus-wide control group, p = .03, 95% CI [.009, .204]. Moreover, URM participants in the colorblind condition did not differ from URM nonparticipants in the campus-wide control group, p = .23, 95% CI [-.16, .04]. These results suggest that the multicultural intervention improved URM students' academic outcomes compared to both (1) the colorblind condition and (2) what they would typically experience in college in the absence of such an intervention. In contrast to URM participants, and consistent with Hypothesis 4, the intervention conditions did not affect White and Asian students' GPAs, F(2, 1618) = 0.29, p = .75, $\eta^2 = .000$.

Second, we tested our theorizing that, by improving the performance of URM students, multiculturalism would also serve to reduce the racial achievement gap. As shown in Figure 1, we found a significant racial achievement gap between URM participants and White and Asian participants in both the colorblind condition, p < .001, 95% CI [-.35, -.13], and the campus-wide control condition, p < .001, 95% CI [-.24, -.13]. However, in the multicultural condition, we found that their GPAs did not differ significantly, p = .34, 95% CI [-.16, .06]. Consistent with our theorizing, the achievement gap in the multicultural condition was 73% smaller than the campus-wide control condition and 79% smaller than the colorblind condition.

Finally, we explored whether the intervention effects on academic achievement varied over time. To do so, we conducted a General Linear Model Repeated Measure with time as the within-subject factor and Greenhouse-Geisser's correction. Results are shown in Figure 2. Suggesting that the intervention effects persisted and were consistent across terms during the first 2 years in college, no significant main effects of time, nor interactions with time, emerged (p > .05; see detailed results in Supplemental Materials, section II [A:7]). Nevertheless, consistent with the GPA results reported above, the expected significant Race \times Condition interaction remained, F(2, 1542) = 4.95, p = .007.



Discussion

We developed and tested a novel multicultural diversity ideology intervention, which improved the academic achievement of URM students throughout their first 2 years in college. Half-way through students' first term in college, reading a multicultural diversity statement led URM students to earn higher GPAs 2 years later. Furthermore, representing a school's diversity ideology in terms of multiculturalism significantly reduced the racial achievement gap.

The present research contributes to the growing literature on wise interventions that aim to shape students' psychological experiences in a way that produces lasting benefits over time (e.g., Yeager & Walton, 2011). This literature often focuses on emphasizing shared experiences, affirming the self, or changing students' mindsets about the nature of ability (Walton & Wilson, 2018). The current research is the first to demonstrate that representing a school's approach to diversity in terms of multiculturalism can improve URM students' long-term academic achievement in college. Indeed, by conveying that a school recognized and celebrated the value of URM students' different experiences in college, multiculturalism helped to reduce the racial achievement gap for nearly 2 years.

Although the multicultural intervention shares some degree of overlap with difference-education interventions (Stephens et al., 2014; Townsend et al., 2019), the ideas that they communicate are also conceptually distinct (see Stephens, Hamedani & Townsend (2019) for a more detailed discussion of these differences). First, although multiculturalism and difference-education both acknowledge the importance of social group differences, difference-education provides additional context about the source of these social group differences. Specifically,

difference-education teaches students that their current experiences of being different or feeling different in college have contextual sources, that is, that they emerge from participating in different sociocultural contexts over time. Second, although multiculturalism and difference-education both recognize the positive elements of difference, difference-education helps students understand how difference can matter in both positive and negative ways. Future research should examine how the particular messages of these two interventions impact students' outcomes; for example, by considering when it may prove more beneficial for students to gain a contextual understanding of difference versus a simpler multicultural message that celebrates its positive elements.

The present research also advances prior literature regarding the benefits of multiculturalism for racial and ethnic minorities (Plaut, 2010). Previous research demonstrates that exposure to multiculturalism is associated with positive outcomes *related* to academic achievement (Holoien & Shelton, 2012; Plaut et al., 2009; Wilton et al., 2015). The current research extends these findings by demonstrating that exposure to a multicultural diversity ideology intervention can causally improve the long-term (and real-world) academic achievement of URM college students. An academic benefit such as this may have significant and long-term benefits for URM students' success after college (Carnevale et al., 2012; Lareau & Weininger, 2003).

Finally, the present research contributes to the literature on diversity ideologies. Much of the previous research in this area focuses on the comparison between multiculturalism and colorblindness (Plaut et al., 2018; Rattan & Ambady, 2013; Wilton et al., 2015). While this comparison is important, it leaves open the question of whether colorblindness harms racial and ethnic minorities or whether multiculturalism benefits them. By comparing the results for multicultural, colorblind, and nonparticipant campus-wide control conditions, the current research helps to answer this question: Multiculturalism can improve the performance of URM students compared to both colorblindness and the absence of any diversity ideology.

Limitations and Future Directions

While the current research found that the diversity ideology intervention influenced the long-term GPAs of URM students, at the time the intervention was delivered, there were no immediate effects on students' self-reported anticipated experiences. It is possible that we did not find evidence of immediate effects of the intervention because these experiences can take time to emerge. Indeed, while some studies show that interventions can have immediate effects, other research finds that effects can emerge over time (Cohen et al., 2009; Harackiewicz et al., 2014; Stephens et al., 2014; Tibbetts et al., 2018; Townsend et al., 2019; Walton & Cohen, 2007, 2011). It is important, therefore, for future research to continue to investigate how these wise interventions influence experiences both immediately and over time.

Future research should also identify the psychological and behavioral mechanisms that explain why the multicultural diversity ideology improves URM students' academic performance. Based on previous research on the benefits of multiculturalism and other theoretically related interventions, we explored the possibility that the multicultural intervention would improve URM students' GPAs by fostering engagement and improving the quality of their college experiences (Plaut et al., 2009; Vorauer & Quesnel, 2017). However, we did not find any evidence of any mediators. One possible explanation for our null findings is that we obtained a small sample for the end-of-year follow-up survey, and thus we were underpowered (33%) to detect any effects related to possible mechanisms. Alternatively, it is possible that we did not capture the mechanisms through which the intervention influenced students' achievement. For example, multiculturalism could have improved grades by reducing URM students' stress during the college transition (Levine et al., 2019; Levy et al., 2016).

Future research should not only identify the processes through which multiculturalism benefits students academically but also examine potential moderators of these benefits. One important question is whether this intervention would be effective in different contexts. For example, if schools do not have programming or resources related to diversity and inclusion, or if they lack significant numbers of underrepresented racial and ethnic minorities, students would be unlikely to perceive a multicultural diversity statement as authentic or meaningful. In such a context, we suggest that the current intervention would be unlikely to benefit URM students (Apfelbaum et al., 2016; Purdie-Vaughns et al., 2008).

Conclusion

Although colleges and universities across the U.S. frequently espouse the importance of diversity and inclusion, they often do not fully acknowledge the significance of students' differences, nor do they fully value their strengths (Schofield, 2007). The present research suggests that it is not enough for schools merely to promote diversity and inclusion; the specific *diversity ideology* matters. The current research demonstrates that representing a school's diversity ideology in terms of multiculturalism is one powerful way to improve the long-term academic achievement of URM students. Indeed, attending to, valuing, and affirming people's social group differences can ultimately help to reduce the racial achievement gap.

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Author Contributions

All authors contributed to the intervention materials and study methods. Hannah J. Birnbaum and Nicole M. Stephens collected data. Hannah J. Birnbaum performed the data analysis and interpretation under the supervision of Nicole M. Stephens. Hannah J. Birnbaum and

Nicole M. Stephens primarily wrote the manuscript with critical revisions from Sarah S. M. Townsend and MarYam G. Hamedani. All authors approved the final version of the manuscript for submission.

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Supplemental Material

The supplemental material is available in the online version of the article.

Notes

- 1. We use the term *social group differences* to refer to variation in the experiences, opportunities, or outcomes of diverse social groups (e. g., race or social class).
- 2. In our preregistration, we hypothesized that multiculturalism would also improve first-generation students' grades. However, the intervention had no effect on their GPAs. We speculate that this was because first-generation students were only 16% of the sample and thus we were underpowered to detect an effect (for details, see Supplemental Materials, section II [A:4–5]).

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