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 reduce the racial achievement gap by improving the grade-point-averages (GPAs) of URM students during the first two years of college. Specifically, first-year college students ($N = 407$) read a diversity statement that either represented the schools' diversity ideology in terms of multiculturalism or colorblindness. URM students who read a multicultural (vs. colorblind) diversity statement earned higher GPAs two years later. One process through which the multicultural diversity statement improved URM students' GPA was by increasing their sense of academic preparedness. The current study is the first to demonstrate the long-term and causal academic benefits of exposure to a multicultural ideology intervention for URM students.

Keywords: diversity, intervention, colorblind, multicultural, higher education

A Diversity Ideology Intervention: Multiculturalism Reduces the Racial Achievement Gap

In the United States, college achievement plays a critical role in determining students' future success (Brand & Xie, 2010; Carnevale, Jayasundera, & Cheah, 2012). Yet, African American, Latino, and Native American students—or underrepresented racial minorities (URM) students—obtain lower grades, take longer to graduate, and drop out of college at higher rates than their White and Asian counterparts (Musu-Gillette et al., 2017). Although access to material resources undoubtedly contributes to this racial achievement gap, subtle cues conveyed in the school environment (e.g., approach to diversity, curriculum) can also play an essential role. For example, universities often overlook—rather than celebrate—the ways in which students' different backgrounds or social group memberships meaningfully impact their experiences in college (Schofield, 2007). When universities fail to appreciate the value and strength of difference, this can lead URM students to feel poorly equipped to succeed there (Fryberg, Covarrubias, & Burack, 2013; Steele & Cohn-Vargas, 2013). These psychological experiences, in turn, can undermine their academic achievement (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 the racial achievement gap (Stephens, Hamedani, & Destin, 2014; Walton & Wilson, 2018). Wise interventions focus on changing how people understand themselves in their educational environments (e.g., whether students feel prepared to fully take advantage over their academic experiences; Townsend, Stephens, Smallets, & Hamedani, 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, one successful growth mindset intervention

improved the psychological experiences of URM students by teaching them that ability can grow and intelligence is malleable (Yeager & Dweck, 2012). URM intervention participants reported greater academic engagement, which improved their GPAs long after the intervention was delivered (Aronson, Fried, & Good, 2002).

In the current research, we leverage the wise intervention approach to test a novel intervention, a *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, Steele, & Steele, 2000; Plaut, 2002). We theorize that representing a school's diversity ideology in terms of multiculturalism (vs. colorblindness) can reduce the racial achievement gap by improving URM students' GPAs. We theorize that one process by which it can do so is by increasing students' sense that they are capable and equipped to take advantage of their academic experiences.

Diversity Ideologies

The two most prominent diversity ideologies in the United States are colorblindness and multiculturalism (Rattan & Ambady, 2013). The colorblind diversity ideology contends that social group differences,[1] such as those due to race or social class, should be avoided (Plaut, Thomas, Hurd, & Romano, 2018). Underlying this ideology is the assumption that if people simply *avoid* social group differences, they will no longer have the opportunity to act in a biased manner (Apfelbaum, Norton, & Sommers, 2012; Bonilla-Silva, 2003).

Previous literature on colorblindness has operationalized avoiding social group differences in one of two ways: by emphasizing individuals' unique identities (Plaut, 2002; Schofield, 2007) or by emphasizing similarities across individuals (Purdie-Vaughns, Steele,

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[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).

Davies, Ditlmann, & Crosby, 2008). When emphasizing individuals' unique identities, colorblindness asserts that people should be judged on the basis of individual achievement—without regard to social group differences (Ryan, Hunt, Weible, Peterson, & Casas, 2007). In contrast, when emphasizing similarities across individuals, colorblindness asserts that people are ultimately the same and should therefore should be treated similarly—without regard to their social group differences (Markus et al., 2000). Irrespective of these different operationalizations, the core tenet remains the same—social group differences should be *avoided* (Plaut et al., 2018).

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 and can be a source of strength (Plaut, 2010; Stevens, Plaut, & Sanchez-Burks, 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 attend to and value these differences (Rattan & Ambady, 2013).

Diversity Ideologies and Academic Achievement

We theorize that multiculturalism will promote URM students' academic achievement because multiculturalism recognizes—and even celebrates—the value and strength of URM students' different experiences in college (e.g., feeling different, having different perspectives; Schofield, 2007). By appreciating the value and strength of difference, multiculturalism should help students to feel a sense of being equipped to succeed in college—what we term *empowerment* (Gurin, Nagda, & Zuniga, 2013; Sleeter, 1991; Townsend et al., 2019).

Consistent with this possibility, research in multicultural education and related interventions suggest that recognizing social group differences can be empowering for underrepresented students (Banks, 2007; Dover, 2013; Hytten & Bettez, 2011; Sasaki &

Vorauer, 2013; Sleeter, 1991, 2011; Steele & Cohn-Vargas, 2013; Townsend, Stephens, Smallets, & Hamedani, 2019). Moreover, lab and survey studies in social psychology similarly suggest that exposure to multiculturalism improves URM students' empowerment-related outcomes. For example, exposure to multiculturalism (vs. colorblindness) promotes URM students' engagement and persistence and increases their sense of having power or control (Plaut, Thomas, & Goren, 2009; Vorauer & Quesnel, 2017).

In tandem with these empowerment benefits, related studies in social psychology suggest that exposure to multiculturalism has the potential to improve URM students' academic achievement. Indeed, research finds that URM's exposure to multiculturalism (vs. colorblindness) is associated with better persistence and performance on cognitive, creativity, and math tasks (Brannon et al., 2015; Holoien & Shelton, 2012; Wilton, Good, Moss-Racusin, & Sanchez, 2015). Together, these prior studies suggest that by focusing on and celebrating the value of difference, multiculturalism (vs. colorblindness) should help URM students feel a greater sense of empowerment and improve their academic achievement.

Current Research

Given that multiculturalism recognizes the value and strength of URM students' different experiences in college, we hypothesize that representing a school's diversity ideology in terms of multiculturalism (vs. colorblindness) will improve their academic achievement over time (i.e. two year-cumulative GPA).[2] We also consider the exploratory hypothesis that an increased sense

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[2] In our pre-registration, we hypothesized that multiculturalism could also improve first-generation students' grades (i.e. who do not have parents with a 4-year college degree). However, the intervention had no effect on their GPAs (see Supplemental Materials). This could be because we were underpowered (i.e., first-generation students were 16% of the sample) or because first-generation students did not relate to the diversity messages, which are typically associated with race or ethnicity (Plaut et al., 2018).

of empowerment is one process that can help to explain the benefits of multiculturalism for URM students.

In contrast, given that multiculturalism is less likely to reflect the experiences of well-represented social groups (i.e. White and Asian students in college; Schofield, 2007),[3] we hypothesize that representing a school's diversity ideology in terms of multiculturalism (vs. colorblindness) will not impact their academic achievement, nor their feelings of empowerment. These hypotheses, both formal and exploratory, were pre-registered (http://bit.ly/OSF_Link1 and http://bit.ly/OSF_Link2). In our pre-registration, we also included exploratory hypotheses that multiculturalism might improve other psychological experiences (e.g., reducing social identity threat; see Supplemental Materials for full measures and results).

Method

Participants

Participants exposed to the intervention. Half-way 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 pre-registration indicates, we predetermined our sample size to provide 90% power to detect a small effect size of $\eta^2 = .02$ at the standard .05 alpha error probability. We used G*Power and the F test family and the ANOVA: Fixed Effects, omnibus, one-way test to conduct the power analysis, which indicated that we needed a final sample of 360 participants to reliably detect a small effect (Faul, Erdfelder, Lang, & Buchner, 2007). However, we increased our target sample size to 600

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[3] We group White and Asian students together because we focus on the effects of diversity ideologies on the racial achievement gap, and both White and Asian students tend to have higher GPAs than other racial groups (Hirschman & Wong, 1986; Kao & Thompson, 2003). Nevertheless, when we exclude Asian students from the analyses and compare URM and White students, our results are equivalent (see Supplemental Materials).

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 pre-

registration, 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?" Participants were distributed across the multicultural ($n = 70$) and

colorblind ($n = 76$) conditions, $\chi2\ (1) = .003$, $p = .96$. We used the remaining sample (n = 407

participants; 38% URMs) to examine the intervention's effects on students' two year-cumulative

GPAs.

Participants in the third year survey. At the beginning of students' third year in

college, we invited the sample of 407 participants to complete a follow-up survey about their

college experiences. Given that the two-year cumulative GPA was our primary dependent

measure, we aimed to capture the experiences during students' first two years in college that

could help to explain the processes through which the intervention influenced students' GPA. Of

the 407 invited, 250 participants ($n = 92$ URMs) completed the survey (response rate = 61%).

Nonparticipants in the campus-wide control group. We had the opportunity to

compare the GPA results from the intervention to data from a campus-wide control group ($N =$

1,317), which included all students who were in the same cohort as the intervention participants,

but who did not participate in the intervention.[4] There were 1,221 nonparticipants ($n = 222$

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[4] We did not indicate in our pre-registration that we would compare data from the intervention to the campus-wide
control group because we did not know at the time whether we would have access to these data.

URMs) who had the necessary data to compare their two-year cumulative GPAs to participants in the intervention conditions.

Procedure

      Intervention. Participants were randomly exposed to one of 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, Purdie-Vaughns, Garcia, & Cohen, 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, Stephens, & Reagans, 2016; Purdie-Vaughns et al., 2008; Stephens, Fryberg, Markus, Johnson, & Covarrubias, 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 their school 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., either by emphasizing individuals' unique identities or 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 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 questions to assess their

perceptions of the messages conveyed in the intervention conditions (i.e., a manipulation check).

As reported in the Supplemental Materials, this survey also contained a variety of questions

about students' anticipated experiences in college. Consistent with other interventions, the

diversity ideology intervention did not influence students' anticipated college experiences,

possibly because these types of changes take time to emerge (Cook et al., 2012; Harackiewicz et

al., 2014; Stephens et al., 2014; see the Supplemental Materials).

Third year survey. At the beginning of students' third year in college, participants were

asked to report on their experiences so far in college, including their sense of empowerment,

social fit, perceptions of bias and the college climate, and activities on campus. As explained

earlier, given our current theorizing that empowerment is one process that can help to explain the

benefits of multiculturalism for URM students, we focus here on the measures and results that are conceptually related to empowerment. See Supplemental Materials for all other measures and analyses.

Measures

Manipulation check. To assess whether the diversity statement effectively conveyed multiculturalism vs. colorblindness, participants completed two 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 two years in college. Following previous research (Walton & Cohen, 2011), we do not include the fall term GPA in any GPA analyses because students' 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).

Empowerment. To capture the experience of empowerment**,** participants answered items adapted from previous related interventions (Stephens et al., 2014; Townsend et al., 2019). We use the term *empowerment* to capture both (a) the psychological experience of being academically prepared or equipped to succeed and sense of control over one's academic experiences (b) the tendency to engage in behaviors to fully take advantage of one's experience (Stephens, Hamedani, & Townsend, 2019). We therefore measured indicators of empowerment that were psychological (academic preparedness, control) and behavioral (help-seeking and use of resources). We measured *academic preparedness* with two items on a scale from 1 (*strongly*

disagree) to 7 (*strongly agree*): *"*The academic experience at [the university] has been difficult

for me" (*reverse-scored*); "I have been well prepared to be academically successful as a student

at [the university]." We measured sense of *control* with two items on a scale from 1 (*strongly*

disagree) to 7 (*strongly agree*): "I have done things at [the university] in a way that is right for

me"; "I have had choice about what I am doing and learning at [the university]." We measured

help-seeking behavior by asking students to report on how many times in a typical month (on a

scale from 0 – 5 or more) they: emailed a professor to ask a question; met with a professor

outside of class; went to the writing center. Finally, we measured *use of resources* by counting

the number of resources (e.g., Library Research Support) students reported using in college.

Results

Analysis Strategy

Unless otherwise noted, we examined the effect of the intervention using a 2 (race: URM

vs. White and Asian) x 2 (intervention condition: multicultural vs. colorblind) analysis of

covariance (ANCOVA). In these ANCOVAs, to increase the chance that any effects resulted

from the intervention, rather than pre-existing skills and demographic differences, we controlled

for participants' SAT scores, family income (not low SES= 0; low SES = 1), generation status

(continuing-generation = 0; first-generation = 1), and gender (male = 0; female = 1).[5] Results are

largely equivalent without covariates (see Supplementary Materials).

We obtained participants' academic and demographic information both from the

university registrar and from the survey administered immediately after the intervention. For the

objective measures such as SAT scores, cumulative GPA, and Pell grant status, the analyses used

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[5] We did not pre-register the use of covariates, nor did we indicate which statistical analyses we would employ. For the covariates, we used the standard set of covariates utilized in previous interventions (Stephens, Hamedani, & Destin, 2014; Townsend, Stephens, Smallets, & Hamedani, 2019).

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.

Manipulation check. First, we confirmed that the multicultural statement conveyed that the university recognized and valued differences more than the colorblind statement. Results indicated a main effect of condition, F (1, 295) = 30.22, p <.001, η^2 = .09, such that participants in the multicultural condition reported that the diversity statement recognized and valued *differences* significantly more (M = 6.16, SD = 0.98) than those in the colorblind condition (M = 5.38, SD = 1.41). 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.

Next, we confirmed that the colorblind statement conveyed that the university recognized and valued similarities more than the multicultural statement. Results indicated a main effect of condition, F (1, 295) = 46.10, p <.001, η^2 = .14, such that participants in the colorblind condition reported that the diversity statement recognized and valued *similarities* significantly more (M = 5.34, SD = 1.32) than those in the multicultural condition (M = 4.11, SD = 1.68). There was no main effect of race, F (1, 295) = 1.54, p = .22, nor an interaction effect, F (1, 295) = 0.02, p = .90.

Academic Performance: Two Year Cumulative GPA

First, we examined the effect of the intervention on the trajectory of students' academic achievement over each term. To do so, we conducted a GLM Repeated Measures, with time as the within-subject factor and Greenhouse-Geisser's correction. Results indicated a significant effect of time, F (1.86, 717.08) = 3.86, p = .02, such that the GPAs of students over each term

tended to increase. However, there was no significant interaction of time with intervention condition, $F (1.86, 717.08) = 0.33$, $p = .71$, race $(F (1.86, 717.08) = 1.04$, $p = 0.35$, nor a race x intervention condition interaction, $F (1.86, 717.08) = 1.94$, $p = .15$. See Figure 1 for these results.
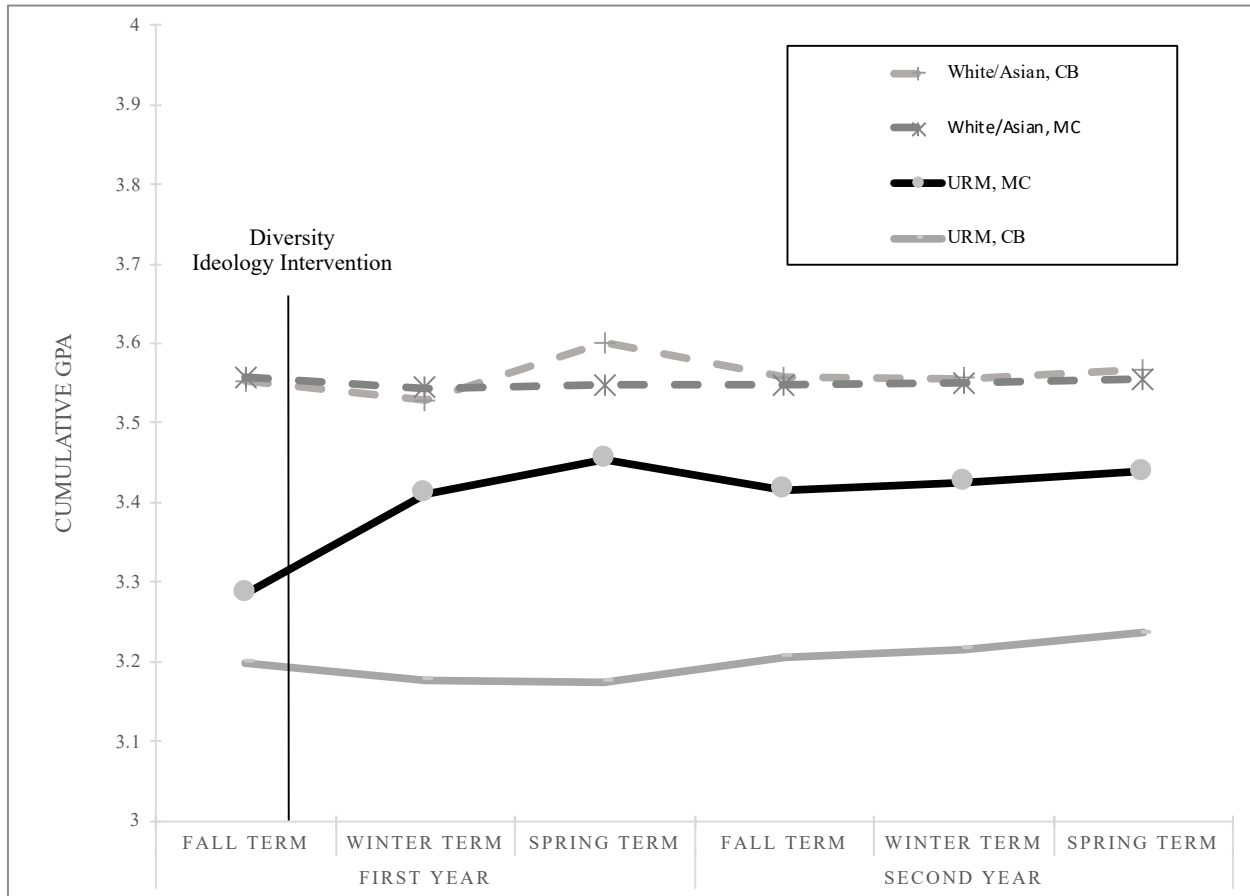

Figure 2. Mean GPA as a function of race and condition. Raw means for each term GPA are presented for ease of interpretation. Note that line of the diversity ideology intervention represents a stylized version of our methods—the diversity ideology intervention was conducted in the middle of the fall term. As students' fall term grades include academic outcomes (e.g., tests, assignments) that occurred before the intervention was delivered; we do not include the fall term GPA in the time-series analyses.

As the effect of the intervention on GPA was consistent across terms, we next used students' two-year cumulative GPAs to test our central hypothesis: representing a school's diversity ideology in terms of multiculturalism (vs. colorblindness) would improve URM students' grades. Results supported our prediction. There was a significant main effect of race, *F*

$(1, 399) = 7.93$, $p = .005$, $\eta^2 = .02$ and no significant effect of intervention condition, $F (1, 399)$ $= 3.28$, $p = .07$, $\eta^2 = .008$ on GPA. These effects were qualified by the predicted race x intervention condition interaction, $F (1, 399) = 5.26$, $p = .02$, $\eta^2 = .01$. As shown in Figure 2, results indicated that URM participants in the multicultural condition had higher GPAs than URM participants in the colorblind condition, $F (1, 399) = 6.82$, $p = .009$, $\eta^2 = .02$. Additional exploratory analyses revealed that these differences could not be explained by variation in students' course selection between conditions (i.e. difficulty of courses; see Supplemental Materials).
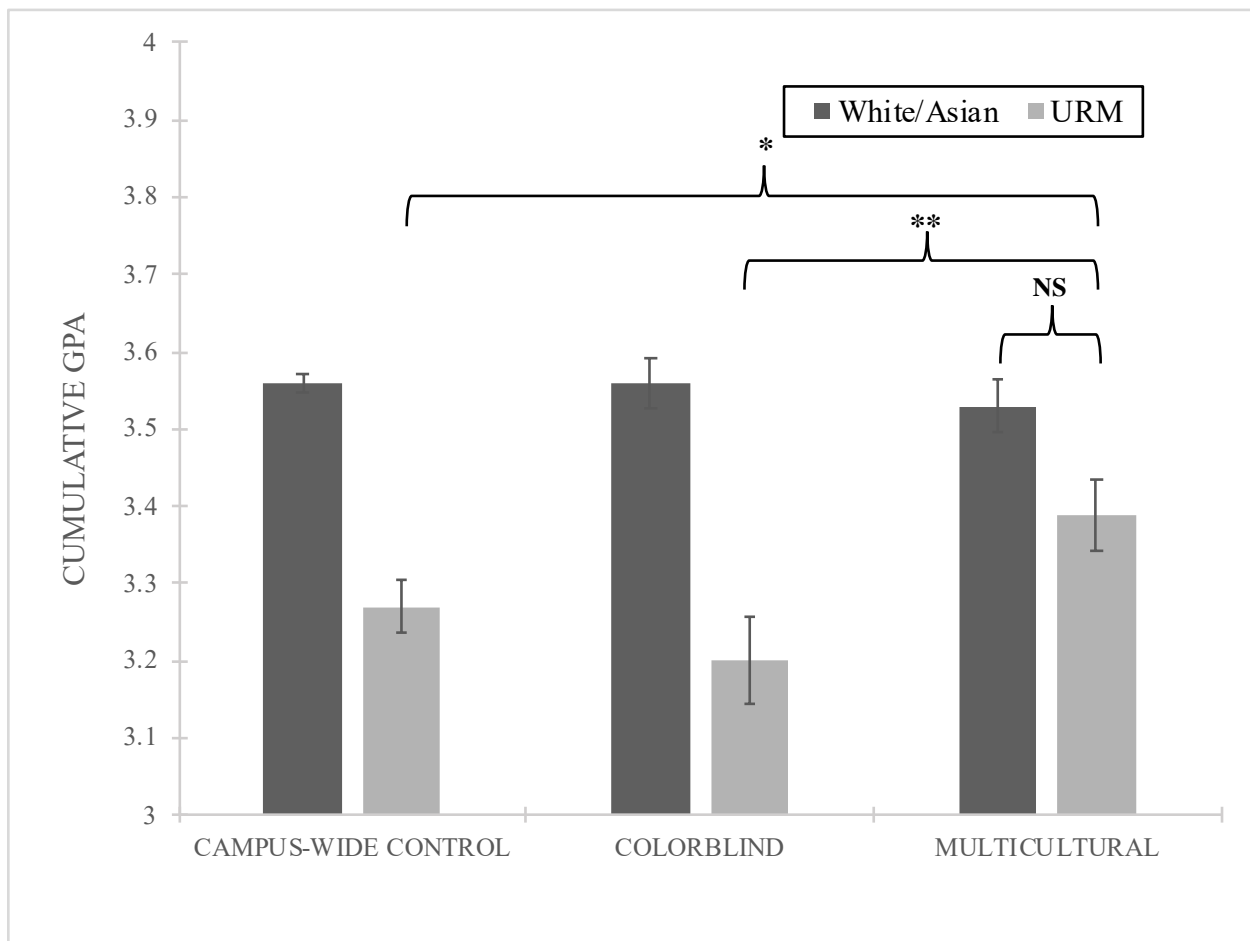
Figure 2. Raw means are presented for ease of interpretation. Mean cumulative two-year GPA as a function of race and condition. Error bars show standard errors of the mean. Note that key contrasts are highlighted in this figure. See main text for full pattern of results.

Further supporting our hypotheses, whereas a gap of .36 grade points emerged between URM participants and White and Asian participants in the colorblind condition, F (1, 399) = 12.75, $p < .001$, $\eta^2 = .03$, their GPAs did not differ significantly in the multicultural condition, F (1, 399) = 0.48, $p = .49$. Moreover, the achievement gap in the multicultural condition was 39% smaller than in the colorblind condition.

Next, we examined how URM participants in the two intervention conditions compared to the campus wide control condition. We conducted a 2 (race: URM vs. White and Asian) x 3 (intervention condition: multicultural vs. colorblind vs. campus-wide control) analysis of covariance (ANCOVA). See Table 1 for results of all contrasts in the ANCOVA.

Table 1
Univariate Analysis of Covariance Results for Grade Point Average (GPA)

Variable	F
Intervention condition	1.84
Race	29.32***
Intervention condition x Race	3.38*
Raw means and Standard Deviations	*Mean (SD)*
URM participants	
Multicultural	3.39$_a$ (.41)
Colorblind	3.20$_b$ (.50)
Campus-Wide Control	3.27$_b$ (.50)
White and Asian participants	
Multicultural	3.53$_a$ (.40)
Colorblind	3.56$_a$ (.35)
Campus-Wide Control	3.56$_a$ (.36)

Note. Within each column, means that have different subscripts differ significantly ($p < .05$) based on post hoc tests. Covariates are included in the model. [+] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

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 x intervention condition interaction, $F(2, 1618) = 3.38$, $p = .03$, $\eta^2 = .004$. We decomposed this interaction and found that the GPA of URM students significantly differed across conditions, $F(2, 1618) = 4.04$, $p = .02$, $\eta^2 = .005$. Suggesting that the multicultural condition may have improved URM students' academic outcomes beyond what they would typically experience in the absence of intervention, URM participants in the multicultural condition earned significantly higher GPAs than URM nonparticipants in the campus-wide control group, $p = .03$, 95% CI [0.009, 0.204]. Moreover, URM participants in the colorblind condition did not differ from URM nonparticipants in the campus-wide control group, $p = .23$, 95% CI [-0.16, 0.04]. This finding suggests that the colorblind diversity statement may be similar to the messages that students typically encounter in their university environments. In contrast to URM participants, and consistent with our hypotheses, the intervention conditions did not affect White and Asian students' GPAs, $F(2, 1618) = 0.29$, $p = .75$, $\eta^2 = .000$.

Empowerment

Contrary to our exploratory hypotheses, for three indicators of empowerment (i.e., control, help-seeking, and resource-seeking), results indicated no main effect of condition, no main effect of race, nor an interaction ($p > .05$; see Table 2).

Table 2
Univariate Analysis of Covariances Results for Empowerment

	Empowerment Variables			
	Control	Help-Seeking	Use of Resources	Academic Preparedness
	F	F	F	F

Intervention condition	0.81	0.53	0.42	5.90*
Race	3.06	0.05	1.83	8.14**
Intervention x Race	0.19	0.71	1.22	1.02
URMs: MC vs. CB	0.09	0.96	1.21	4.66*

Note. Degrees of freedom (*df*) for all independent variables = 1, 242. MC = Multicultural. CB = Colorblind. Covariates are included in the model. $^{+}$ *p* < .10, * *p* < .05, ** *p* < .01, *** *p* < .001.

For the *academic preparedness* measure of empowerment, results indicated a main effect of condition, $F(1, 242) = 5.90$, $p = .02$, $\eta^2 = .02$, a main effect of race, $F(1, 242) = 8.14$, $p = .005$, $\eta^2 = .03$ but no significant interaction, $F(1, 242) = 1.02$, $p = .31$, $\eta^2 = .004$. Given our pre-registered exploratory hypotheses that the multicultural ideology intervention would improve psychological experiences for URM students but not White and Asian students, we examined the effect of the intervention on URM students' academic preparation, even in the absence of a significant intervention condition x race interaction.

Consistent with our exploratory hypotheses, pairwise comparisons revealed that URM students in the multicultural condition reported greater academic preparedness than those in the colorblind condition, $F(1, 242) = 4.66$, $p = .03$, $\eta^2 = .02$. Since URM students in the multicultural (vs. colorblind) condition reported higher levels of academic preparedness, we next conducted moderated mediation analyses to examine whether this increase in preparation could help to explain the how the multicultural condition improved URM students' GPAs. With 20,000 bootstrap resamples, including the same covariates, we conducted moderated mediation analyses with participants' academic preparedness as the mediator between intervention condition and academic achievement with race as the moderator (Hayes; 2013; PROCESS macro for SPSS 23, Model 7). Results showed a mediating effect of academic preparedness, $b = 0.17$, $SE_{boot} = .02$, 95% CI = [0.14, 0.21]. The indirect effect was significant among URM students, $b = -0.09$, $SE_{boot} = .04$, 95% CI = [-0.17, -0.01], such URM students in the multicultural (vs. colorblind)

condition reported greater academic preparedness, which led to higher GPAs. The indirect effect was not significant among White and Asian participants, b = -0.04, SE_{boot} =.03,95% CI = [-0.10, 0.02].

General Discussion

We developed and tested a novel multicultural diversity ideology intervention, which improved the academic achievement of URM students throughout their first two years in college. Halfway through students' first term in college, reading a multicultural diversity statement led URM students to earn higher GPAs two years later. Although the mediation results are exploratory in nature, this study also demonstrated one process through multiculturalism might improve the academic achievement of URM students: by helping students feel more academically prepared. This psychological process is generally consistent with other research on the benefits of multiculturalism and interventions that emphasize social group differences (Banks, 1993; Levine, Markus, Austin, Chen, & Miller, 2019; Plaut et al., 2009; Richeson & Nussbaum, 2004; Schofield, 2007; Sleeter, 1991, 2011; Townsend et al., 2019).

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 diversity ideology in terms of multiculturalism can improve URM students' long-term academic achievement in college. This effect is important because students' grades can significantly impact their success after college (Carnevale, Jayasundera, & Cheah, 2012; Lareau & Weininger, 2003).

Limitations and Future Directions

Based on previous research on the benefits of multiculturalism and other theoretically-related interventions, we theorized that the multicultural intervention would improve URM students' GPAs by fostering empowerment (Plaut et al., 2009; Stephens, Hamedani, & Townsend, 2019; Vorauer & Quesnel, 2017). The current paper explored various indicators of empowerment (e.g., preparation, control, help-seeking) and found that academic preparation, but not other forms of empowerment, improved URM students' academic achievement. It is possible that this finding is theoretically meaningful, indicating a unique effect of multiculturalism on academic preparedness, but not other indicators of empowerment. Alternatively, it is possible that we did not find differences for other indicators of empowerment because of our limited sample size in the follow-up survey during students' third year (i.e. the third year survey). Therefore, future research should replicate these findings and investigate whether there is something particular to academic preparedness or whether multiculturalism affects other forms of empowerment as well. Additionally, future research should consider other possible psychological experiences that could contribute to the benefits of multiculturalism.

Finally, future research should also test the effectiveness of this intervention in different contexts. 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, it is unlikely that the current intervention would be beneficial (Apfelbaum, Stephens, & Reagans, 2016; Purdie-Vaughns et al., 2008).

Conclusion

Though colleges and universities across the U.S. frequently espouse the importance of diversity and inclusion, they often do not fully acknowledge and value the strengths of URM students different experiences (Schofield, 2007). The present research suggests that it is not enough for schools to merely 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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