

### **Abstract**

Although colleges and universities across the U.S. frequently espouse the importance of diversity and inclusion, they often adopt a colorblind diversity ideology that avoids social group differences. Yet, research suggests that a multicultural diversity ideology that attends to social group differences has potential to benefit the academic achievement of underrepresented racial and ethnic minority (URM) students. In the current research, we tested whether representing a school's diversity ideology in terms of multiculturalism (vs. colorblindness) could reduce the racial achievement gap by improving URM students' academic achievement in college. Specifically, first-year college students ( $N = 407$ ) read either a multicultural or colorblind diversity statement. URM students who read a multicultural (vs. colorblind) statement earned higher grade-point-averages (GPAs) one year later, thereby statistically eliminating the racial achievement gap. The current research is the first study to demonstrate the long-term and causal academic benefits of 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 consequential 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 structural factors undoubtedly contribute to this racial achievement gap, how students make sense of or construe their experiences in college also plays a critical role (Paunesku et al., 2015; Walton & Cohen, 2007).

Social psychologists have leveraged this understanding of the importance of construal to develop “wise” interventions aimed at closing the racial achievement gap (Stephens, Hamedani, & Destin, 2014; Walton & Wilson, 2018). Wise interventions do not focus on changing structural factors, but rather focus on shaping people's psychological experiences in ways that foster lasting change (Walton & Wilson, 2018). For example, one successful wise intervention changed the psychological experiences of URM students by teaching them that academic struggles are a normal and transient part of the college experience. URM students who participated in this social-belonging intervention learned a new way to make sense of their experiences in college, which resulted in better academic performance years later (Walton & Cohen, 2007).

In the current research, we leverage the wise intervention approach to test a novel intervention, namely, a multicultural ideology intervention. To do so, we draw upon the robust psychological literature on *diversity ideologies*, or beliefs on 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' academic achievement in college.

### **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,<sup>1</sup> 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).

Previous literature on colorblindness has operationalized avoiding social group differences in one of two ways: by emphasizing individuals' unique or personal identities (Plaut, 2002; Schofield, 2007) or by emphasizing similarities across individuals (Purdie-Vaughns, Steele, Davies, Dittmann, & Crosby, 2008). When emphasizing individuals' unique or personal 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 share certain similarities in common and therefore should be treated equally—without regard to social group differences (Markus et al., 2000). Irrespective of the different operationalizations of colorblindness, 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

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<sup>1</sup> 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).

matter 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 vary in their experiences in their world and that it is therefore important to attend to and value these experiences. In practice, multicultural initiatives can take a variety of forms ranging from mentoring programs to “diversity days” that focus on attending to and celebrating the experiences of underrepresented social groups (Stevens et al., 2008).

### **Diversity Ideologies and Academic Achievement**

In the United States, colorblindness pervades higher education (Markus et al., 2000; Pollock, 2004; Schofield, 2007). Yet, across various experimental lab and correlational survey studies, research suggests that multiculturalism (vs. colorblindness) may be more beneficial for the academic achievement of URM students (Plaut, 2010). For example, multiculturalism (vs. colorblindness) leads URM students to perform better on cognitive tasks (Holoien & Shelton, 2012) and math tests (Wilton, Good, Moss-Racusin, & Sanchez, 2015). Additionally, multiculturalism (vs. colorblindness) is associated with more positive psychological experiences, such as heightened engagement and reduced anxiety for URM students (Plaut, Thomas, & Goren, 2009; Vorauer, Gagnon, & Sasaki, 2009). Importantly, these positive psychological experiences are associated with an increased perception of fit in academic settings, more positive educational beliefs, and ultimately greater academic achievement for URM students (Chavous et al., 2003; Fryberg, Covarrubias, & Burack, 2013; Stephens et al., 2014).

Theory and research suggest that the academic benefits of multiculturalism for URM students emerge, in part, because multiculturalism attends to the importance of racial differences in experiences that are often central to the identities of URM students (Sellers & Shelton, 2003).

Additionally, multiculturalism recognizes—and even celebrates—the varied experiences of URM students in college (e.g., feeling different from others in college, having different ideas or perspectives; Schofield, 2007). By contending that social group differences matter and can be a source of strength, multiculturalism recognizes and appreciates URM students' varied experiences in college (Plaut, 2010).

### Current Research

Although research documents that multiculturalism (vs. colorblindness) can improve outcomes *related* to URM students' academic achievement, research has yet to examine whether multiculturalism (vs. colorblindness) can improve URM students' real-world academic achievement, such as their end-of-year GPAs in college. 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 psychological experiences) that can foster long-term improvements in academic achievement (Walton & Wilson, 2018). In the first intervention of its kind, the present study tests whether multiculturalism (vs. colorblindness) can improve the end-of-year GPAs of URM students in college.

As outlined above, multiculturalism reflects and appreciates URM students' experiences of feeling and being different than others. Accordingly, we hypothesize that representing a school's diversity ideology in terms of multiculturalism (vs. colorblindness) will improve URM students' academic achievement.<sup>2</sup> Additionally, we hypothesize, albeit in an exploratory manner,

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<sup>2</sup> As stated in our pre-registration, we hypothesized that representing a school's diversity ideology in terms of multiculturalism (vs. colorblindness) could benefit not only URM students, but also first-generation college students (i.e. who do not have parents with a 4-year college degree). We examined the effect of the diversity ideology intervention on first-generation students' academic achievement while controlling for race and did not find a significant effect. This could be because we were underpowered (i.e., with first-generation students as only 16% ( $n = 67$ ) of the entire 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). When we combine URM and first-generation students into one group of students who are disadvantaged in higher education, we did not find a significant condition x disadvantaged group interaction,  $p = .14$ . We report full results in the Supplemental Materials.

that such an intervention could improve URM students' psychological and behavioral experiences (e.g., fit) in college. In contrast, given that attending to social group differences is likely less relevant to the experiences of well-represented social groups (i.e. White and Asian students in college; Schofield, 2007),<sup>3</sup> we hypothesize that representing a school's diversity ideology in terms of multiculturalism (vs. colorblindness) will not impact their academic achievement, nor their psychological and behavioral experiences in college. All hypotheses, both formal and exploratory, were pre-registered ([http://bit.ly/OSF\\_Link1](http://bit.ly/OSF_Link1) and [http://bit.ly/OSF\\_Link2](http://bit.ly/OSF_Link2)).

## Method

### Participants

During the first few weeks of college, we sent an email to all URM first-year students and a comparable number of White and Asian first-year students at a private, mid-size, selective university. We asked students to take part in a "University Development Project." As described in our pre-registration, 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 (Faul, Erdfelder, Lang, & Buchner, 2007). The power analysis indicated that we needed to obtain a final sample of 360 participants to reliably detect a small effect. However, we conducted a follow-up survey at the end of students' first year, and therefore increased our target sample size to 600 participants in order to account for the 60% retention rate that we have observed in prior interventions (e.g., Stephens et al., 2014).

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<sup>3</sup> We group White and Asian students together because we focus on reducing the racial achievement gap, and both White and Asian students tend to achieve better academic outcomes than other racial groups (Hirschman & Wong, 1986; Kao & Thompson, 2003). Nevertheless, when we exclude Asian students from the analyses and focus on the racial achievement gap between URM and White students, our results are equivalent (see Supplemental Materials).

A total of 565 students took part in our study. Twelve students could not be included in the analyses because of missing data for variables that were central to our analyses (i.e., race and end-of-year GPA). As described in our pre-registration, we predetermined that we would exclude participants who did not pay attention to the intervention manipulation (i.e. the diversity statement). We asked participants at the end of the study, “Did you pay attention to the content of the diversity statement you read.” We excluded 146 participants who responded “No.” Importantly, those excluded were both URM students ( $n = 64$ ; 29% of total URM sample) and White and Asian students ( $n = 82$ , 25% of White and Asian sample). Participants were also distributed comparably between the multicultural condition ( $n = 70$ ) and the colorblind condition ( $n = 76$ ),  $\chi^2(1) = .003, p = .96$ . There was no interaction effect of URM students and condition on attention to the intervention manipulation,  $\chi^2(1) = .32, p = .57$ . The remaining sample included 407 participants, of which 156 were URMs and 251 were White and Asian.<sup>4</sup> This was the sample that we used to examine the effect of the intervention on academic achievement.

We compared the results from the intervention to data from a campus-wide control group ( $N = 1,317$ ), which included all first-year students who were in the same cohort as the intervention participants, but who did not participate in the intervention. This campus-wide control group made it possible to compare (1) end-of-year GPAs of URM participants in the intervention conditions (i.e. the multicultural condition and the colorblind condition) to URM nonparticipants and (2) White and Asian participants in the intervention conditions to White and Asian nonparticipants. Among the nonparticipants, 11% of students’ race and one student’s gender was missing. This left us with 1,221 nonparticipants ( $n = 222$  URMs) that we could use to compare the end-of-year GPAs to participants in the intervention conditions.

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<sup>4</sup> Compared to the population at the university, URM students were overrepresented in our sample. The 156 URM students represented 41% of URM students in the entire freshman class. The 251 White and Asian students represented 20% of White and Asian students in the entire freshman class.

## Procedure

**Intervention manipulation.** After consenting, participants were instructed to read and evaluate a potential diversity statement for an incoming student guide, which served as our manipulation of a school's diversity ideology. They were randomly assigned to read either a multicultural diversity statement (multicultural condition;  $n = 208$ ) or a colorblind diversity statement (colorblind condition;  $n = 199$ ). Notably, in both conditions, students learned that their school valued and celebrated diversity and inclusion. To convey this message, participants were told that the school was committed to a “diverse and equitable academic environment” and had a variety of resources that focused on creating a more inclusive campus.

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 emphasized the value of diversity and inclusion by *avoiding* social group differences (i.e. by either emphasizing individuals' unique or personal identities or by emphasizing 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 or personal 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 diversity statements.

**Time 1 survey.** Immediately after reading the diversity statement, participants were asked to complete a *saying-is-believing* exercise, in which they wrote down the main message from the diversity statement and described how diversity could benefit the school community. The purpose of this activity was to encourage students to internalize the ideas communicated in the diversity statement (Stephens et al., 2014; Yeager & Walton, 2011). Next, participants were asked to complete survey items assessing two outcomes. First, we evaluated participants’ reactions to the diversity statements (i.e. a manipulation check and perceived authenticity of the diversity statement). Second, we measured participants’ anticipated psychological and behavioral experiences (i.e. anticipated experiences) in their first year at college.

Among the 407 participants who were exposed to the intervention manipulation, 75% of participants ( $N = 303$ ) completed the entire Time 1 survey (multicultural condition:  $n = 160$ ; colorblind condition:  $n = 143$ ). This left us with 303 participants that we could use to examine participants’ reaction to the diversity statement and their anticipated college experiences. Among the 303 participants, 126 were URM participants (multicultural condition:  $n = 63$ , colorblind condition:  $n = 60$ ). Based on a comparable intervention examining similar measures (Cohen’s  $d = .43$ , Stephens, Hamedani & Destin, 2014), this sample was moderately powered (i.e., 69% power) to examine the effect of the intervention on URM participants’ reaction to the diversity statement and anticipated college experiences.

**Time 2 survey.** At the end of the first year in college, participants who completed the Time 1 Survey were invited to complete a second survey (Time 2). This survey asked them to report their actual college experiences during their past year, rather than their anticipated college

experiences. Among the 206 participants who completed this survey, only 79 were URM students. This sample of 79 URM students was highly under-powered (i.e., 47% power) to examine the effect of the intervention conditions (multicultural vs. colorblind) on college experiences for URM participants. We therefore report these measures and results in the Supplementary Materials.

### **Measures**

**Academic performance.** The university registrar provided the official end-of-year GPAs of all first-year students.

#### **Time 1 survey: Reactions to the diversity statement.**

**Manipulation check.** Participants completed a manipulation check to assess whether the diversity statement effectively represented a school's diversity ideology in terms of multiculturalism or colorblindness. Participants reported on two items that asked them to assess the extent to which the diversity statement emphasized the following: "Recognizing and valuing differences" and "Recognizing and valuing similarities" on a scale from 1 (*not at all*) to 7 (*very much*).

**Perceived authenticity of diversity statement.** We designed the multicultural and colorblind diversity statements such that they would both convey that the university genuinely appreciated and valued diversity. Yet, research finds that when organizations promote colorblindness, URM individuals often question the authenticity of organizations' commitment to diversity (Purdie-Vaughns et al., 2008). In other words, URM students often interpret colorblindness as a lack of genuine commitment to diversity and inclusion. Therefore, in the current study, we sought to ensure that any benefits observed in the multicultural versus colorblind condition were not due to differences in perceived authenticity of the diversity statements. Participants reported

on two items the extent to which they perceived the diversity statement as authentic on scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The items were “The diversity statement seemed authentic” and “The diversity statement showed that the [university] cares about promoting diversity” ( $\alpha = .84$ ).

**Time 1 survey: Anticipated college experiences.** Participants were asked to complete survey items adapted from previous wise interventions related to their anticipated experiences in their first year at college (Stephens et al., 2014; Walton & Cohen, 2007). We included these measures to examine whether representing a school’s diversity ideology in terms of multiculturalism (vs. colorblindness) could improve outcomes in addition to URM students’ academic achievement.

Participants reported on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*) their anticipated *social fit* (e.g., “I feel part of the college community at [the University]”); *learner empowerment* (e.g., “I can do all of the work in class if I don’t give up”); *appreciation of difference* (e.g., “There are different ways to be successful at [the University]”); *social identity threat* (e.g., “I expect students at my college to make unfair assumptions about me based on my background”); *bridging differences* (e.g., “In college, I hope to have the opportunity to educate others about my background, culture, and identity”); *intergroup comfort* (e.g., participants indicated how comfortable they would be to interact with someone “from a different social class background than you”); and *help-seeking* (e.g. participants indicated the number of hours per month they would “email a professor to ask a question”). For a full list of items in the Time 1 survey, see Supplemental Materials.

## Results

### Analysis Strategy

We preregistered our data analysis plan on OSF. 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). Results are largely equivalent without covariates (see Supplementary Materials).

We obtained participants' academic and demographic information both from the university registrar and from the Time 1 survey. For the objective measures such as SAT scores, end-of-year GPA, and family income (i.e. Pell grant status) we used data from the university registrar in the analyses 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), we used participants' self-report data from the Time 1 survey in the analyses. For any missing social identity data, we used information from the university registrar.

### **Time 1 Survey: Reactions to the Diversity Statement**

**Manipulation check.** Demonstrating that the multicultural statement effectively conveyed that the university attended to social group differences in college more than the colorblind statement, results indicated a main effect of condition,  $F(1, 295) = 30.22, p < .001, \eta^2 = .09$ . Participants in the multicultural condition reported that the diversity statement recognized and valued social group *differences* significantly more ( $M = 6.16, SD = 0.98$ ) than those in the

colorblind condition ( $M = 5.39, SD = 1.41$ ). 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 effectively conveyed that the university avoided social group differences and instead focused on similarities more than the multicultural statement. Results indicated a main effect of condition,  $F(1, 295) = 46.10, p < .001, \eta^2 = .14$ , 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,  $F(1, 295) = 0.02, p = .90$ .

**Perceived authenticity of diversity statement.** Supporting the integrity of our manipulation, results indicated no significant main effect of condition,  $F(1, 295) = 0.52, p = .47$ , no main effect of race,  $F(1, 295) = 1.47, p = .23$ , nor an interaction,  $F(1, 295) = 0.04, p = .84$ . Results suggest that URM participants perceived the two different diversity statements to be comparably authentic, and there was no difference in perceived authenticity between URM and White and Asian participants. Additionally, results for academic performance do not differ when controlling for perceived authenticity of the diversity statements (see Supplemental Materials). Taken together, it is unlikely that differences in perceived authenticity of the diversity statements are influencing our results.

### **Academic Performance**

First, we examined our central hypothesis that representing a schools' diversity ideology in terms of multiculturalism (vs. colorblindness) could reduce the racial achievement gap by improving URM students' academic achievement in college. Results supported our prediction. There was a significant main effect of race,  $F(1, 399) = 9.90, p = .002, \eta^2 = .02$ , and a

marginally significant effect of intervention condition,  $F(1, 399) = 2.75, p = .10, \eta^2 = .007$  on end-of-year GPA. These main effects were qualified by the predicted race x intervention condition interaction,  $F(1, 399) = 4.23, p = .04, \eta^2 = .01$ . As shown in Figure 1, whereas a gap of .36 grade points emerged between URM participants and White and Asian participants in the colorblind condition,  $F(1, 399) = 13.47, p < .001, \eta^2 = .03$ , their GPAs did not differ significantly in the multicultural condition,  $F(1, 399) = 1.22, p = .27$ . Moreover, the achievement gap in the multicultural condition was 47% smaller than in the colorblind condition. Further supporting our hypotheses, results indicated that URM participants in the multicultural condition had higher GPAs than URM participants in the colorblind condition,  $F(1, 399) = 5.59, p = .02, \eta^2 = .01$ . 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).

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.

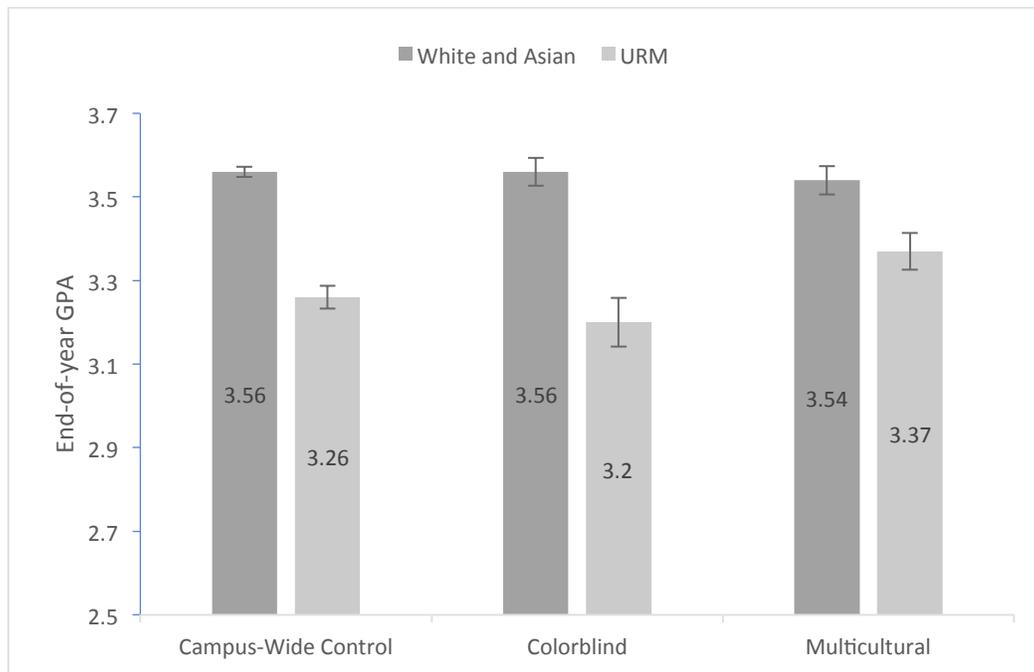
Table 1  
*Univariate Analysis of Covariances Results for Grade Point Average (GPA)*

<i>Variable</i>	<i>F</i>
Intervention condition	1.5
Race	32.34***
Intervention x Race	2.53 <sup>+</sup>
<i>Raw means and Standard Deviations</i>	
<i>Mean (SD)</i>	
URM	
Multicultural (1)	3.37 <sub>a</sub> (.40)

Colorblind (2)	3.20 <sub>b</sub> (.49)
Campus-Wide Control (3)	3.26 <sub>a, b</sub> (.49)
White and Asian	
Multicultural (4)	3.54 <sub>a, c</sub> (.40)
Colorblind (5)	3.56 <sub>a, c</sub> (.36)
Campus-Wide Control (6)	3.56 <sub>c</sub> (.36)

*Note.* Within each column, means that have different subscripts differ significantly ( $p < .05$ ) based on post hoc tests. <sup>+</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

We found a significant a main effect of race,  $F(1, 1618) = 32.34, p < .001, \eta^2 = .02$ , and no main effect of intervention condition,  $F(2, 1618) = 2.75, p = .10, \eta^2 = .007$ . These main effects were qualified by a marginal race x intervention condition interaction,  $F(2, 1618) = 2.53, p = .08, \eta^2 = .003$ . We decomposed this interaction and found that the GPA of URM students significantly differed across conditions,  $F(1, 1618) = 3.19, p = .04, \eta^2 = .004$ . Suggesting that the multicultural condition may have improved students' academic outcomes beyond what URM students experience in the absence of a diversity statement, URM participants in the multicultural condition earned marginally higher GPAs than URM nonparticipants in the campus-wide control group,  $p = .07, 95\% \text{ CI} [-0.01, 0.19]$ . Moreover, URM participants in the colorblind condition did not differ from URM nonparticipants in the campus-wide control group,  $p = .23, 95\% \text{ CI} [-0.16, 0.04]$ . 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 participants' GPAs  $F(2, 1618) = 0.110, p = .89, \eta^2 = .000$ .



**Figure 1.** Raw means are presented for ease of interpretation. Mean end-of-year GPA as a function of race and condition. Error bars show standard errors of the mean.

### Time 1 Survey: Anticipated College Experiences

To evaluate the effect of representing a school's diversity ideology in terms of multicultural (vs. colorblindness) on anticipated college experiences, we conducted a 2 (race: URM vs. White and Asian) x 2 (intervention condition: multicultural vs. colorblind) multivariate analysis of covariance (MANCOVA), with the same covariates as our GPA analysis. Consistent with previous research, the MANCOVA indicated a marginally significant main effect of race,  $F(7, 289) = 1.80, p = .09, \eta^2 = .04$ , such that URM participants tended to indicate worse anticipated college experiences than White and Asian participants. Follow-up univariate analyses revealed that URM participants indicated marginally higher levels of social identity threat and indicated lower levels of the university appreciating differences compared to White and Asian participants,  $F(1, 302) = 3.65, p = .06$  and  $F(1, 302) = 6.83, p = .01$ , respectively. There were no other marginal or significant differences for race. Additionally, results indicated no significant

main effect of condition on anticipated college experiences,  $F(7, 289) = 1.27, p = .26$ . Finally, the MANCOVA indicated a marginally significant race x condition interaction,  $F(7, 289) = 1.87, p = .07, \eta^2 = .04$ . However, follow up univariate analyses indicated no significant interactions for any of the individual measures or any marginal differences for URM students between conditions.

### General Discussion

In the current research, we developed and tested a novel multicultural diversity ideology intervention, which demonstrated important consequences for the long-term academic achievement of URM students. During the first few weeks of college, reading a diversity statement that emphasized the value of diversity by *attending to*, rather than *avoiding*, social group differences led URM students to earn higher end-of-year GPAs, thereby statistically eliminating the racial achievement gap.

The present research contributes to the growing literature on wise interventions that aim to shape students' psychological experiences (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 (Blackwell, Trzesniewski, & Dweck, 2007; Cohen & Sherman, 2014; Walton & Cohen, 2007). The current research is the first to demonstrate that representing a school's diversity ideology in terms of multiculturalism (vs. colorblindness) can improve URM students' academic achievement in college.

The present research also advances prior literature regarding the benefits of multiculturalism for racial and ethnic minorities (Plaut, 2010). Previous research demonstrates that 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 multiculturalism can causally improve the long-term (and real-world) academic achievement of URM college students. An academic benefit such as this may have significant implications for URM students' success after college (Carnevale, Jayasundera, & Cheah, 2012; Lareau & Weininger, 2003).

### **Limitations and Future Directions**

In an exploratory manner, we hypothesized that the academic benefits of multiculturalism could be partially explained by improvements in URM students' experiences in college. We did not find evidence that this was the case. One explanation for our null findings could be that our power was reduced (Power = .41 with  $\eta^2 = .01$  and Power = .70 with  $\eta^2 = .02$ ) because far fewer participants ( $n = 303$ ) completed these survey measures relative to those exposed to the manipulation ( $n = 407$ ). Alternatively, it is possible that other mechanisms were the pathways through which the intervention influenced students' achievement. For example, it is possible that the multicultural condition increased URM students' participation in diversity-related events on campus, which have been shown to improve academic achievement (Brannon, Markus, & Taylor, 2015; Denson, 2009). Future research should identify the psychological and behavioral mechanisms that explain why the multicultural diversity ideology improves URM students' academic achievement.

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; Yeager & Walton, 2011).

**Conclusion**

Though colleges and universities across the U.S. frequently espouse the importance of diversity and inclusion, they often adopt a colorblind ideology (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 (vs. colorblindness) is one powerful way to improve the academic achievement of underrepresented racial and ethnic minority students. Indeed, attending to, rather than avoiding, social group differences can ultimately help to reduce the racial achievement gap.

**References**

Apfelbaum, E. P., Norton, M. I., & Sommers, S. R. (2012). Racial color blindness: Emergence,

practice, and implications. *Current Directions in Psychological Science*, *21*, 205–209.

doi:10.1177/0963721411434980

Apfelbaum, E. P., Stephens, N. M., & Reagans, R. E. (2016). Beyond one-size-fits-all: Tailoring diversity approaches to the representation of social groups. *Journal of Personality and Social Psychology*, *111*, 547–566. doi:10.1037/pspi0000071

Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development*, *78*, 246–263. doi:10.1111/j.1467-8624.2007.00995.x

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*, 273–302. doi:10.1177/0003122410363567

Brannon, T. N., Markus, H. R., Taylor, V. J. (2015). “Two souls, two thoughts,” Two elf-schemas: Double consciousness can have positive academic consequences for African Americans. *Journal of Personality and Social Psychology*, *108*, 586–609. doi:10.1037/a0038992.

Carnevale, A. P., Jayasundera, T., & Cheah, B. (2012). *The college advantage: Weathering the economic storm*. Washington, DC: The Georgetown University Center on Education and the Workforce.

Chavous, T. M., Bernat, D. H., Schmeelk-Cone, K., Caldwell, C. H., Kohn-Wood, L., & Zimmerman, M. A. (2003). Racial identity and academic attainment among African American adolescents. *Society for Research in Child Development*, *74*, 1076-1090.

Cohen, G. L., & Sherman, D. K. (2014). The psychology of change: Self-affirmation and social psychological intervention. *Annual Review of Psychology*, *65*, 333–371.

doi:10.1146/annurev-psych-010213-115137

Denson, N. (2009). Do curricular and cocurricular diversity activities influence racial bias? A meta-analysis. *Review of Educational Research, 79*, 805–838.

doi:10.3102/0034654309331551

Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*, 175–191. doi: 10.3758/BF03193146

Fryberg, S. A., Covarrubias, R., & Burack, J. A. (2013). Cultural models of education and academic performance for Native American and European American students. *School Psychology International, 34*, 439–452. doi:10.1177/0143034312446892

Hirschman, C., & Wong, W. (1986). The extraordinary educational attainment of Asian-Americans : A search for historical evidence and explanations. *Social Forces, 65*, 1–27.

Holoien, D. S., & Shelton, J. N. (2012). You deplete me: The cognitive costs of colorblindness on ethnic minorities. *Journal of Experimental Social Psychology, 48*, 562–565.

doi:10.1016/j.jesp.2011.09.010

Kao, G., & Thompson, J. S. (2003). Racial and ethnic stratification in educational achievement and attainment. *Annual Review of Sociology, 29*, 417–442.

doi:10.1146/annurev.soc.29.010202.100019

Lareau, A., & Weininger, E. (2003). Cultural capital in educational research: A critical assessment. *Theory and Society, 32*, 567–606. doi:10.1023/B:RYSO.0000004951.04408.b0

Markus, H. R., Steele, C. M., & Steele, D. M. (2000). Colorblindness as a barrier to inclusion: Assimilation and nonimmigrant minorities. *Daedalus, 129*, 233–259.

- Musu-Gillette, L., de Brey, C., McFarland, J., Hussar, W., Sonnenberg, W., & Wilkinson-Flicker, S. (2017). *Status and Trends in the Education of Racial and Ethnic Groups 2017* (NCES 2017-051). Washington, DC. Retrieved from <http://nces.ed.gov/pubsearch>
- Paunesku, D., Walton, G. M., Romero, C., Smith, E. N., Yeager, D. S., & Dweck, C. S. (2015). Mind-set interventions are a scalable treatment for academic underachievement. *Psychological Science, 26*, 784–793. <https://doi.org/10.1177/0956797615571017>
- Plaut, V. C. (2002). Cultural models of diversity in America: The psychology of difference and inclusion. In R. Shweder, M. Minow, & H. R. Markus (Eds.), *Engaging cultural differences: The multicultural challenge in liberal democracies* (pp. 365–395). New York, NY: Russell Sage Foundation Press.
- Plaut, V. C. (2010). Diversity science: Why and how difference makes a difference. *Psychological Inquiry, 21*, 77–99. doi:10.1080/10478401003676501
- Plaut, V. C., Thomas, K. M., & Goren, M. J. (2009). Is multiculturalism or colorblindness better for minorities? *Psychological Science, 20*, 444–446. doi:10.1111/j.1467-9280.2009.02318.x
- Plaut, V. C., Thomas, K. M., Hurd, K., & Romano, C. A. (2018). Do color blindness and multiculturalism remedy or foster discrimination and racism? *Current Directions in Psychological Science, 27*, 200–206. doi:10.1177/0963721418766068
- Pollock, M. (2004). *Colormute: Race talk dilemmas in an American school*. Princeton, NJ: Princeton University Press.
- Purdie-Vaughns, V., Steele, C. M., Davies, P. G., Dittmann, R., & Crosby, J. R. (2008). Social identity contingencies: How diversity cues signal threat or safety for African Americans in mainstream institutions. *Journal of Personality and Social Psychology, 94*, 615–630. doi:10.1037/0022-3514.94.4.615

- Rattan, A., & Ambady, N. (2013). Diversity ideologies and intergroup relations: An Examination of Colorblindness and Multiculturalism. *European Journal of Social Psychology, 43*, 12-21. doi:10.1002/ejsp.1892
- Rattan, A., Savani, K., Komarraju, M., Morrison, M. M., Boggs, C., & Ambady, N. (2018). Meta-lay theories of scientific potential drive underrepresented students' sense of belonging to science, technology, engineering, and mathematics (STEM). *Journal of Personality and Social Psychology, 115*, 54-75. doi:10.1037/pspi0000130
- Ryan, C. S., Hunt, J. S., Weible, J. A., Peterson, C. R., & Casas, J. F. (2007). Multicultural and colorblind ideology, stereotypes, and ethnocentrism among Black and White Americans. *Group Processes and Intergroup Relations, 10*, 617–637. doi:10.1177/1368430207084105
- Schofield, J. W. (2007). The colorblind perspective in school: Causes and consequences. In J. A. Banks & C. A. McGee Banks (Eds.), *Multicultural education: Issues and perspectives* (pp. 271–295). New York, NY: Wiley.
- Sellers, R. M., & Shelton, J. N. (2003). The role of racial identity in perceived racial discrimination. *Journal of Personality and Social Psychology, 84*, 1079–1092. doi:10.1037/0022-3514.84.5.1079
- Stephens, N. M., Hamedani, M. H., & Destin, M. (2014). Closing the social-class achievement gap: A difference-education intervention improves first-generation students' academic performance and all students' college transition. *Psychological Science, 25*, 943–953. doi:10.1177/0956797613518349
- Stevens, F. G., Plaut, V. C., & Sanchez-Burks, J. (2008). Unlocking the benefits of diversity: All-inclusive multiculturalism and positive organizational change. *Journal of Applied Behavioral Science, 44*, 116–133. doi:10.1177/0021886308314460

- Unzueta, M. M., & Binning, K. R. (2010). Which racial groups are associated with diversity? *Cultural Diversity and Ethnic Minority Psychology, 16*(3), 443–446. doi:10.1037/a0019723
- Verkuyten, M. (2009). Self-esteem and multiculturalism: An examination among ethnic minority and majority groups in the Netherlands. *Journal of Research in Personality, 43*, 419–427. doi:10.1016/j.jrp .2009.01.013
- Vorauer, J. D., Gagnon, A., & Sasaki, S. J. (2009). Salient intergroup ideology and intergroup interaction. *Psychological Science, 20*, 838–845. doi:10.1111/j.1467-9280.2009.02369.x
- Walton, G.M., & Cohen, G. L. (2007). A question of belonging: Race, social fit, and achievement. *Journal of Personality and Social Psychology, 92*, 82–96. doi:10.1037/0022-3514.92.1.82
- Walton, G. M., & Spencer, S. J. (2009). Latent ability: Grades and test scores systematically underestimate the intellectual ability of negatively stereotyped students. *Psychological Science 20*, 1132–1139. doi:10.1111/j.1467-9280.2009.02417.x
- Walton, G. M., & Wilson, T. D. (2018). Wise interventions: Psychological remedies for social and personal problems. *Psychological Review, 125*, 617–655. doi:10.1037/rev000011
- Wilton, L. S., Good, J. J., Moss-Racusin, C. A., & Sanchez, D. T. (2015). Communicating more than diversity: The effect of institutional diversity statements on expectations and performance as a function of race and gender. *Cultural Diversity and Ethnic Minority Psychology, 21*, 315–325. doi:10.1037/a0037883
- Yeager, D. S., & Walton, G. M. (2011). Social-psychological interventions in education: They're not magic. *Review of Educational Research, 81*, 267–301. doi:10.3102/0034654311405999