# Difference-Education

## *Improving Disadvantaged Students' Academic Outcomes by Changing Their Theory of Difference*

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This chapter provides an overview of *difference-education*: a wise intervention designed to help disadvantaged students overcome the psychological obstacles (i.e., a lack of fit and empowerment) that can negatively impact their opportunity to succeed in college. The defining feature of difference-education is that it teaches students about the contextual nature of social group differences through the stories of successful students from diverse backgrounds. This chapter explains what difference-education is, describes how it can reduce educational disparities, and provides an overview of strategies to implement it effectively. First, we provide an overview of the difference-education intervention approach and describe the literatures that we drew on to develop the methods and theorizing that underlie this approach. Second, we discuss the psychological processes through which difference-education produces its effects and provide an overview of supporting research. Third, we review how difference-education interventions have been implemented in college settings, explain some nuances and misconceptions, and describe potential directions for future research.

Difference-education is a wise intervention designed to help college students who are disadvantaged by mainstream educational settings overcome psychological obstacles that can undermine their opportunity to succeed in college. The defining feature of difference-education is that it teaches students about the contextual nature of social group differences through the contrasting narratives or stories of successful students from diverse backgrounds. We use the term *social group differences* to refer to variation in the experiences, opportunities, and/or outcomes of diverse social groups. The stories that students are exposed to during a difference-education intervention convey a contextual understanding of social group differences by illuminating how students' current experiences in college can vary as a function of their different backgrounds. By being exposed to these

stories, intervention participants learn that social group differences are *contextual*—that is, they are a product of students' diverse life experiences and backgrounds. This critical insight can help students understand that their different backgrounds are not a deficiency that holds them back but rather can be a source of strength that they can leverage to fit in with the college community and find their own path to success. As described in this chapter, we designed the first wave of difference-education interventions to examine whether it was possible to use this contextual understanding of social group difference to improve the academic outcomes of first-generation college students (Stephens, Hamedani, & Destin, 2014; Townsend, Stephens, Smallets, & Hamedani, 2018).

## BACKGROUND

Even after first-generation college students (i.e., students who do not have parents with 4-year college degrees) defy the odds to gain admission to college, they still confront obstacles to success that continuing-generation students (i.e., students who have at least one parent with a 4-year college degree) face less often. Beyond having fewer economic resources and academic skills (e.g., Horn & Nuñez, 2000; Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996), first-generation students also confront an additional set of psychological or cultural obstacles, such as a lack of fit or empowerment (Astin & Oseguera, 2004; Goudeau & Croizet, 2017; Sirin, 2005). We use the term *fit* to refer to the feeling of being accepted, recognized, welcomed, and included within a setting, such as the college community (e.g., Stephens, Brannon, Markus, & Nelson, 2015).[1] We use the term *empowerment* to refer to (1) the psychological experience of efficacy, ownership, and control; and (2) the resulting willingness to enact the strategies needed to make the most of one's experience. Together these obstacles fuel a persistent *social class achievement gap,* such that first-generation students earn lower grades and more often drop out compared to continuing-generation students (Astin & Oseguera, 2004; Sirin, 2005).

One especially important cultural obstacle is the mismatch between the largely middle-class culture of higher education and the working-class beliefs, norms, and values that many first-generation students bring with them to college (e.g., Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012). For example, many colleges and universities expect students to pave their own path and express their personal opinions (Fryberg & Markus, 2007), while many working-class students are instead socialized to follow the rules and adhere to socially accepted norms of behavior (e.g., Kohn, 1969). First-generation students are guided by more interdependent norms and may not feel fully comfortable expressing their ideas or opinions in class, or attending office hours to ask a professor for clarification on an assignment or to explain a grade. This cultural mismatch can lead first-generation students to feel excluded from these educational settings and lead them to question whether they fit or belong in college (e.g., Covarrubias & Fryberg, 2015; Ostrove & Long, 2007; Walton & Cohen, 2007). First-generation students can

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[1]We use the term *social fit*, rather than belonging, to emphasize the relationship between a person's psychological experience and its congruence with a particular context, setting, or environment. This term derives from decades of prior work on cultural fit, as well as person–environment, person–culture, or person–organization fit (e.g., Chatman, 1991; Dawis, 1992; Edwards, Cable, Williamson, Lambert, & Shipp, 2006; Fulmer et al., 2010).

also be unfamiliar with the "rules of the game" that lead to success in higher education, such as how to relate to professors or how to choose a major. This lack of familiarity can undermine their sense of empowerment and efficacy (e.g., Housel & Harvey, 2010; Reay, Crozier, & Clayton, 2009). These obstacles can systematically disadvantage first-generation students and further fuel the social class achievement gap.

## Intellectual History

In the first wave of studies, difference-education was designed to reduce the social class achievement gap by helping first-generation students gain a sense of fit and empowerment in college. Difference-education builds on the wise intervention literature in social psychology by using the methodological strategy of changing students' construal or understanding of their experience (Walton & Wilson, 2018)—in this case, their experience of difference. This research area leverages the strategy of changing students' lay theories about ability and achievement to foster success in school (e.g., Wilson, 2011). A *lay theory* is a set of fundamental assumptions about the nature of the self and social world that shapes how people interpret and respond to their experiences (Molden & Dweck, 2006). For example, one popular lay theory intervention provides an understanding that intelligence or ability is malleable and can change over time (e.g., Blackwell, Trzesniewski, & Dweck, 2007). Likewise, we theorize that changing students' lay theories about social group differences—in particular, teaching them a contextual theory of difference—can improve their academic outcomes.

To explain why a contextual theory would improve disadvantaged[2] students' academic outcomes, we drew from diverse literatures in psychology and education that typically do not "talk" to one another. Research in social psychology, on the one hand, has identified two prominent theories of difference—an essentialist theory and a contextual theory—and examined their consequences for intergroup relations. This literature does not examine the effects of a contextual theory on academic outcomes, but instead focuses on its effects on intergroup outcomes. Research in education, on the other hand, theorizes about the academic benefits of teaching students about social group differences, but does not directly isolate or test the causal effects of a contextual theory on these academic outcomes. As such, both literatures provide complementary evidence for our theory, but do not formulate nor test it directly. Below, drawing on the social psychology literature, we first provide an overview of these two lay theories and explain how they can shape the meaning of social group difference and affect intergroup outcomes. Second, we draw on the education literature to provide an overview of research in multicultural and social justice education, which supports the claim that a contextual theory can benefit disadvantaged students academically.

Research in social psychology identifies the meanings and consequences of essentialist versus contextual theories of social group difference for intergroup outcomes. An *essentialist* theory defines social group differences as biologically rooted and therefore relatively fixed or unchanging essences or attributes of individual people or social groups

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[2]The term *disadvantaged* refers to students who are typically disadvantaged by the mainstream culture of higher education—typically students who are first-generation, low-income, and/or underrepresented racial or ethnic minorities. This term is meant to highlight how institutional environments can negatively impact students' learning experiences and chances for success, not that their backgrounds themselves are deficits.

(Gelman, 2004; Haslam, Rothschild, & Ernst, 2000; Prentice & Miller, 2007). In the United States, the essentialist theory of social group differences is the most common way of understanding difference (e.g., Markus, 2008).

Throughout history, an essentialist theory of social group difference has been used to stigmatize social group differences and to downwardly constitute certain groups as deficient or inferior (Markus, 2008; Markus & Moya, 2010). This essential view of difference means that a social group's differences are likely to be interpreted as an indication of their lower value in society, and this rationale can be used to justify their subjugation and mistreatment. For example, if working-class Americans were to receive lower scores than middle-class Americans on an intelligence test, an essentialist theory would suggest that this difference is an indication of working-class people's inherent inferiority, which could be used to rationalize the act of withholding educational resources from them. Indeed, throughout history, this logic has been used to justify prejudice and discrimination and to exclude, oppress, and withhold opportunities from a wide range of social groups. It has been used to justify the genocide of Native Americans, the enslavement of African Americans, and a wide range of discriminatory policies that excluded immigrants throughout U.S. history (e.g., Markus & Moya, 2010; Omi & Winant, 2015). As a result, an essentialist theory of difference links social group differences with largely negative meanings and stigma, and shapes people's experiences accordingly. When people use this essentialist theory to make sense of social group differences, they often experience differences as a threat, a source of deficiency, or a weakness.

An essentialist perspective contrasts sharply with another way of understanding social group difference: a contextual theory. Well represented in the academy and among the social sciences, this theory asserts that social group differences are not essential but instead socially constructed (e.g., Markus, 2008; Markus & Moya, 2010; Omi & Winant, 2015). According to this theory, social group differences come from the normal process of participating in, adapting, and responding to the diverse sociocultural contexts that people inhabit throughout their lives.[3] Further, considering the contextual origins of difference, this theory implies that differences can change over time with new contextual experiences (see Markus, 2008, for related arguments). The contextual view means that social group differences are normal—that is, they stem from people's different life experiences, rather than some kind of inherent inferiority. As such, these differences can no longer be used to justify the mistreatment of those who are different. For example, if working-class Americans were to receive lower scores than middle-class Americans on an intelligence test, a contextual theory suggests that this difference is an indication of working-class students' disparate levels of preparation or opportunities in schools. This interpretation could then be used to rationalize the act of giving working-class students more resources to develop their skills and abilities. As a result, a contextual theory destigmatizes and normalizes the experience of difference, and shapes people's experiences accordingly. Therefore, when people use a contextual theory to make sense of social group differences, they can experience differences positively, as an asset or strength.

Consistent with this idea, research in psychology suggests that exposure to a contextual theory can improve the quality of intergroup relations. Specifically, research has

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[3]The term *sociocultural context* refers to a socially and historically constructed environment that contains a set of culture-specific ideas, practices, and institutions (Markus & Hamedani, 2019; Stephens, Markus, & Fryberg, 2012).

shown that a contextual theory compared with an essentialist theory leads to decreased stereotyping and race-based categorization (Bastian & Haslam, 2006; Chao, Hong, & Chiu, 2013; Keller, 2005); more identification and perceived similarity across different groups (No et al., 2008); and higher levels of intergroup trust and desire for intergroup contact (Kung et al., 2018; Williams & Eberhardt, 2008). For example, when confronted with a social problem relevant to race, Williams and Eberhardt found that exposing diverse participants to the idea that race is socially constructed led them to report greater emotional engagement (based on a self-report measure of their mood) than those who were exposed to the idea that race is essential.

Second, research in education—particularly work on multicultural and social justice education—suggests that learning about the contextual nature of social group difference has the potential to foster disadvantaged students' academic engagement and improve their performance in school (e.g., grades). Most of this interdisciplinary research in education is not designed to isolate or test the causal effects of a contextual theory in the way that experimental social psychologists would. Instead, the research tends to examine the effects of multidimensional educational experiences, which typically include a contextual theory as one part of many different ideas and practices. Although this research area does not provide direct causal evidence of the benefits of a contextual theory, it suggests that a contextual theory has the *potential* to benefit disadvantaged students.

Ethnic studies courses are one example of multicultural and social justice education. They encourage students to view social groups, including their own, as socially and historically situated, and highlight how contextual factors, such as institutions, policies, and practices, can shape students' experiences and life outcomes. Research examining the effects of ethnic studies courses demonstrates that these learning experiences are correlated with a variety of academic benefits (see Sleeter, 2011, for a review; see also Bowman, 2010; Cole, Case, Rios, & Curtin, 2011; Denson, 2009; Nelson Laird, 2005). These courses are often associated with improved academic performance and empowerment of disadvantaged students (e.g., Cabrera, Milem, Jaquette, & Marx, 2014; Sleeter, 2011). For example, one study of San Francisco high schools suggested that taking an ethnic studies course in ninth grade led to an increase in ninth-grade attendance, grade-point average (GPA), and credits earned (Dee & Penner, 2016).

Taken together, research from both psychology and education suggests that providing disadvantaged students with a contextual theory of difference could help destigmatize social group differences and therefore help students understand their meanings in a new, more positive way. That new understanding, in turn, could help improve their engagement and performance in school (e.g., grades). In sum, research in psychology helps explain why a contextual theory is likely to yield positive effects relative to an essentialist theory, and education research provides initial evidence to support the idea that more positive responses are likely to translate into improved academic outcomes.

## PSYCHOLOGICAL PROCESSES

A contextual theory of difference has the potential to change how students make sense of and respond to their own and others' social group differences. Indeed, upon entering college, students often experience challenges or obstacles associated with social group differences. Research in psychology and education demonstrates the college environment

often fails to foster a sense of fit and empowerment for first-generation students (e.g., Ostrove & Long, 2007; Stephens, Brannon, et al., 2015). Illustrating a lack of fit, a first-generation student at Vanderbilt University recounted, "Never before had I truly felt such an extreme sense of estrangement and alienation. . . . I quickly realized that although I may look the part, my cultural and socioeconomic backgrounds were vastly different from those of my predominantly White, affluent peers. I wanted to leave" (Riggs, 2014, para. 2). Describing the experience of feeling disempowered upon entering college, one first-generation student at Cornell University said, "I had no road map for what I was supposed to do once I made it to campus. . . . Aside from a check-in with my financial aid officer . . . I was mostly keeping to myself to hide the fact that I was a very special kind of lost" (Capó Crucet, 2015, para. 15).

A contextual theory of difference can help first-generation students understand their social group differences in a new, more positive light—as a strength, resource, or asset, rather than as a stigma, weakness, or deficiency. Specifically, as shown in Figure 5.1, viewing differences as contextual should change the meaning of difference and help first-generation students gain a sense of fit and empowerment.

Learning that difference is contextual can decrease the stigma attached to difference, and therefore foster disadvantaged students' sense of fit in the college setting. Providing a contextual theory of difference should increase students' sense of fit by conveying that their challenges are informed by their backgrounds and prior experiences, rather than indicating their deficiency as individuals. In other words, the contextual theory should convey the message that "differences are a normal part of the college experience." For example, a first-generation student should understand that having parents without a college education means that it will likely be harder to get advice from one's parents about college (e.g., how to choose a major), and they may need to go to a trusted advisor instead. Accordingly, students should then gain a sense of fit from learning that "my differences will not prevent me from finding my path."

Likewise, learning that difference is contextual can imply that one's experiences of difference are malleable rather than fixed, and therefore foster disadvantaged students' sense of empowerment in college. Providing a contextual theory should help students
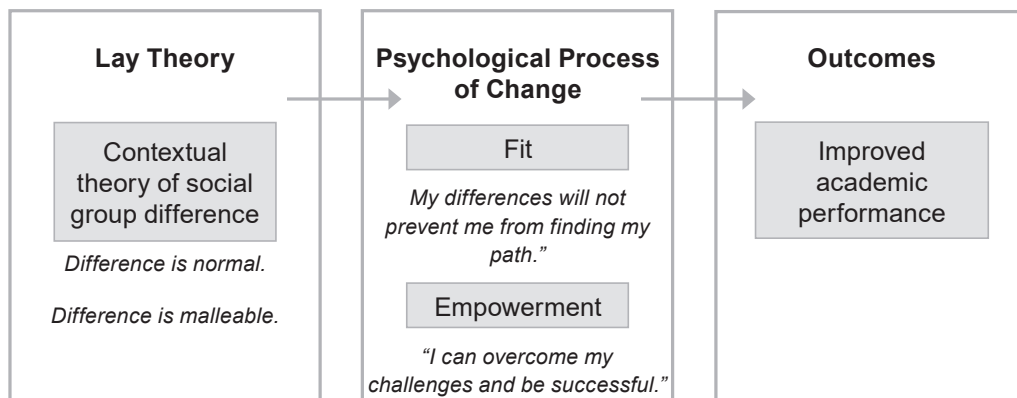


**FIGURE 5.1.** Psychological processes by which a contextual theory of social group difference improves academic performance.

better understand that their challenges are due to experiences in different contexts (e.g., they attended a less rigorous high school), rather than some individual deficiency. In other words, the contextual theory should convey that "differences are malleable" and can be changed in the future. For example, when confronting background-specific challenges, a first-generation student should understand that struggling in one's classes could be a result of having less preparation in a low-quality high school, rather than less ability to succeed. This should help students feel more efficacious and in control, and also foster their willingness to take full advantage of the resources available to them. Accordingly, students should then gain a sense of empowerment from learning that "I can overcome my challenges and be successful."

## EMPIRICAL EVIDENCE

### Outcomes

In an initial set of studies conducted at selective colleges, we delivered and tested difference-education in an effort to improve the academic outcomes of incoming first-generation college students. These interventions exposed students to a contextual theory of social group difference during the transition from high school to college by sharing contrasting stories of senior college students from diverse social class backgrounds. The systematic variation in these stories showed intervention participants vivid examples of how their prior social class contexts could inform their experiences in college. As of the publication of this chapter, the intervention has been delivered in two ways: (1) through a student panel that intervention participants attended in person (Stephens et al., 2014), and (2) through a scalable version that intervention participants completed online (Townsend et al., 2018).

Both of these interventions were delivered early on in students' first quarter or semester (see Yeager & Walton, 2011). We examined the outcomes of difference-education by following intervention participants throughout their time in college, obtaining their official grades from the registrar's office, and conducting a series of surveys and an in-person laboratory study (Stephens et al., 2014; Stephens, Townsend, Hamedani, Destin, & Manzo, 2015; Townsend et al., 2018).

Across both the in-person and online interventions, the primary goal was to improve first-generation college students' academic outcomes. First, we examined the impact of the intervention on students' grades. For the in-person intervention, an analysis of students' official first-year grades revealed that first-generation students in the difference-education condition earned higher GPAs during their first years in college than their counterparts in the control condition (Stephens et al., 2014), thereby reducing the social class achievement gap by 63%. In the scalable version in which students read older students' stories online, we examined students' GPAs during the first 2 years of college. This study showed that difference-education improved first-generation students' cumulative GPA throughout their first 2 years of college (Townsend et al., 2018).

We also examined whether students learned the contextual theory of difference that the intervention sought to convey. If the intervention communicated the theory effectively, we reasoned that participants should be able to articulate some of the insights they gained. They should also be able to use the theory to make sense of and respond to social group differences in a more positive way. We explored both of these possibilities.

First, we asked participants to write about what they learned from the student stories that they had listened to in the panel or read about online. Based on our coding of themes that emerged in participants' open-ended responses, we found evidence consistent with the idea that participants learned a contextual theory of difference. Specifically, both first- and continuing-generation participants in the difference-education condition compared to the control were far more likely to report that they had learned about how students' different backgrounds can matter in college (Stephens et al., 2014; Townsend et al., 2018). For example, illustrating her understanding of how someone's background shapes the college experience, one intervention participant said, "People from different backgrounds have different expectations of college." Demonstrating a similar understanding, another intervention participant said, "Everyone comes from such a different background and has different motives for doing well."

Second, we examined whether participants were able to use the theory to make sense of and respond to social group differences in a more positive way. Consistent with the idea that learning a contextual theory of difference conveys a relatively positive meaning of difference, we found that participants in the difference-education condition compared to the control condition reported greater appreciation of difference (e.g., valuing diversity as part of college; Stephens et al., 2014). Furthermore, at the end of the second year in college, we also examined participants' comfort with social group difference in the course of their interactions with other college students (see Stephens, Townsend, et al., 2015, for detailed methods). Specifically, we asked participants from the in-person intervention study to deliver a speech to a college student peer (i.e., a research assistant), focusing on the topic of how their backgrounds could matter in college, and to complete a series of stressful academic tasks. We then coded the content of the speech and also obtained participants' physiological responses. In the course of the speech, difference-education (vs. control) participants showed a greater willingness to talk about the impact of their different background contexts (e.g., family and friends from home), and also were more comfortable while doing so, as indicated by their physiological responses (Stephens, Townsend, et al., 2015). This finding suggests that difference-education encouraged participants to understand and respond to difference in a new, more positive way compared to participants in the control condition.

## Mechanism

We theorized that the difference-education intervention improves students' academic performance (e.g., GPA) by helping them to understand that their social group differences are contextual in nature, rather than essential features of people or social groups. Specifically, as explained previously, we theorize that learning a contextual theory of difference should help students to experience not only a greater sense of fit as part of the college community but also a greater sense of empowerment to more fully take advantage of campus resources (see Figure 5.1).

Broadly consistent with our theorizing, we found that difference-education increased both fit and empowerment across the in-person and online interventions. In the in-person study, we found that both first- and continuing-generation students in the difference-education condition reported greater fit than those in the control condition. In the online study, however, we found that greater fit only emerged among first-generation students in the difference-education versus control condition.

As for experiences and behaviors related to empowerment, in the in-person study, we found an increased tendency among first-generation students to take advantage of the campus resources they needed to succeed at their university (e.g., seeking help from professors; Stephens et al., 2014). In the online intervention, we found evidence of a complementary but somewhat different process: first-generation students reported a greater sense of feeling empowered as learners, and also reported higher levels of efficacy, control, and preparation (Townsend et al., 2018). Taken together, and drawing from the literatures reviewed above, we theorize that the intervention increased students' sense of empowerment—the psychological experience of being empowered (e.g., efficacious), coupled with the willingness to take the actions (e.g., seeking resources) necessary to succeed.

When we examined the mechanism through which difference-education produces academic benefits (e.g., improved grades), we found that empowerment—but not fit—helps to explain these effects. In the in-person intervention, seeking campus resources served as one process by which difference-education improved first-generation students' grades. Similarly, in the online intervention study, the psychological experience of empowerment served as one process by which difference-education improved first-generation students' grades.

## Effects over Time

As described above, we observed benefits for students' academic outcomes that persisted throughout the first 2 years in college in the online difference-education intervention (Townsend et al., 2018). We are currently examining whether the grades benefits persist throughout the duration of college in both interventions. We theorize that these academic benefits will persist throughout college because of the ways in which a contextual theory initiates a positive, self-reinforcing cycle of experiential and behavioral change (e.g., Miller, Dannals, & Zlatev, 2017; Yeager & Walton, 2011). For example, when a first-generation student confronts a background-specific challenge (e.g., difficulty choosing a major), a contextual theory can help her change how she makes sense of her different experiences in college. Instead of interpreting this challenge as an indication of a fixed deficiency, she can view it as a normal part of coming from her background (e.g., not having college-educated parents to advise her). This interpretation should help foster a sense of fit with the college community. Moreover, using a contextual theory to make sense of her experience should convey that her challenge is not fixed, and that there are steps that she can take to overcome this background-specific challenge and improve her outcomes in college. This interpretation should help foster a sense of empowerment. In turn, these psychological experiences of fit and empowerment should foster positive behavioral changes that have a number of downstream benefits. For example, this student may be more likely to seek help or develop relationships with teachers, which can amplify her psychological experiences of fit and empowerment and also improve her academic performance.

## Heterogeneity

Designing an effective psychological intervention requires considering a number of contextual and individual factors. For any psychological intervention to have a positive

impact, the people targeted must first have the opportunity (i.e., enough resources or skills) to achieve better outcomes. For example, college students must have enough food and reliable housing to be able to focus on academic pursuits, and they must also have the necessary academic skills so that increased academic effort (e.g., spending more time studying) will translate into better academic outcomes (e.g., Stephens, Markus, et al., 2012). In the case of difference-education, we theorize that providing a contextual theory improves students' academic performance by fostering a greater sense of fit and empowerment. According to this logic, this intervention should be most effective when psychological obstacles play a role in undermining students' performance. In other words, the intervention should be most helpful when people already have a foundation of material resources and academic skills, but are not performing up to their potential because of a lack of fit or empowerment.

Beyond giving students the opportunity to succeed, it is also important to consider the different academic contexts and groups with which the intervention can have the most impact. There is nothing about difference-education that limits it to the context of higher education, nor to the particular focus on first-generation college students. Though future research should explore potential boundary conditions, we expect that difference-education would be effective across different settings and with different social groups (e.g., women or racial or ethnic minorities). The general methodological strategy of difference-education should be the same: the intervention would seek to change people's experiences, behaviors, and outcomes by providing a contextual theory of difference. However, as is the case in any intervention, context matters, and it is critically important to take both the local context and the particular social group into account. In practice, researchers and practitioners must work to understand the existing views and challenges that a particular disadvantaged group faces in a setting, and tailor intervention methods and content to address those particular views, challenges, and identity-based concerns.

In the case of different social groups, an intervention designed to address race or gender (vs. social class) would need to take into account how people's existing views about race and gender may differ from those about social class. Because existing views about race or gender (vs. social class) in the United States are likely more well-defined or more essentialized, and thus more difficult to change (e.g., Destin, Rheinschmidt-Same, & Richeson, 2017), an intervention that seeks to provide a contextual theory about racial or gender differences would need to be tailored to counteract people's existing narratives about race or gender (e.g., as biological features of people). Moreover, since discussions about race and gender (vs. social class) may also be more fraught, these discussions may require additional steps to render them inclusive and empowering, rather than threatening. For example, ethnic studies courses rely on highly trained instructors to talk about these difficult topics, and they typically engage students in these conversations over an extended period of time (e.g., a semester).

Future research should also examine in what kinds of social contexts and with whom the intervention is most likely to be effective. Because we theorize that a difference-education intervention improves students' outcomes by providing a contextual theory of social group difference, we expect that the intervention could be effective in any setting where a contextual theory would represent a significant change in how people would otherwise make sense of their experiences. Specifically, we expect that a difference-education intervention would be far more effective in contexts where essentialist theories are the default understanding of social group difference than in contexts where people

are already well versed in a contextual theory. For example, in a given college or university, it is important to consider what diversity efforts are already being implemented. If students have previously engaged in various discussions about the contextual nature of difference (e.g., through an orientation program, a seminar, or an ethnic studies course), they are less likely to benefit from a difference-education intervention.

## COUSINS

Difference-education focuses on changing how students construe the meaning and nature of social group differences, which in turn helps improve their academic experience and performance. This focus on changing how people construe their experiences is similar to many other approaches in the wise intervention literature (Dittmann & Stephens, 2017; Walton & Wilson, 2018). Among these interventions, difference-education is perhaps most similar to belongingness interventions in terms of the specific methods used to deliver the message (e.g., Walton & Cohen, 2007). Belongingness interventions seek to change construal by having intervention participants learn from the stories of other successful students at their university. Similar to these methods, difference-education interventions also seek to change construal by exposing intervention participants to student success stories. Belongingness and difference-education diverge, however, in the content of the student stories and thus the nature of the particular lay theory that they provide. Belongingness interventions focus on changing students' lay theory of adversity by signaling that these experiences are *shared in common* with other students and will improve with time (e.g., Walton & Cohen, 2007). In contrast, difference-education focuses on changing students' lay theory of social group difference by helping them to understand it as contextual. Compared to belongingness, difference-education therefore more explicitly shows how students' different backgrounds shape their *different* experience in college.

Beyond the methodological similarity to other lay theory interventions in social psychology, the key message in difference-education is most similar to Gurin's work on intergroup dialogue learning experiences (Gurin & Nagda, 2006; Gurin, Nagda, & Zúñiga, 2013).

Intergroup dialogues are weekly discussion sessions in which students from diverse backgrounds meet in groups and talk about their commonalities and differences. They are encouraged to critically reflect with other students about the source, nature, and impact of social group differences (Gurin & Nagda, 2006; Gurin et al., 2013). They also discuss topics such as power, inequality, and privilege. These discussions of social group difference make visible how important sociocultural contexts systematically shape people's life experiences and outcomes—that is, the contextual nature of difference (Gurin et al., 2013, p. 155). Indeed, Gurin and colleagues theorize that the dialogues "allow a larger, social truth to emerge between and among individuals in which everyone recognizes themselves as social selves rather than autonomous beings" (p. 78). Participating in these dialogues has been shown to produce psychological tendencies associated with intergroup skills, such as intergroup empathy, perspective taking, and intergroup collaboration (see Gurin et al., 2013). Like intergroup dialogues, difference-education also educates students about the contextual nature of social group differences. However, unlike intergroup dialogues, difference-education provides a more focused message that seeks to isolate the effects of a contextual theory without the more comprehensive learning experience.

## INTERVENTION CONTENT AND IMPLEMENTATION:
## HOW DIFFERENCE-EDUCATION CONVEYS A CONTEXTUAL THEORY

To assess the benefits of difference-education, we randomly assigned half of the partici-pants to attend a difference-education intervention and the other half to attend an active control intervention. In both conditions, incoming students either listened to or read the stories of senior students who discussed how they adjusted to and found success in col-lege. To make this educational experience relevant to everyone, and to also avoid stigma-tizing disadvantaged students, the incoming intervention participants and senior students sharing their stories included both first- and continuing-generation students.

In the difference-education intervention, the students' stories linked their social class backgrounds to different experiences they had in college. In particular, their stories revealed how students' different backgrounds can inform their experiences in both posi-tive and negative ways, shaping (1) the challenges or obstacles they were likely to con-front, as well as (2) the strengths and strategies they leveraged to be successful. Because part of learning a contextual theory is understanding that social group differences can be positive, it was critical to convey that students' diverse backgrounds could be a source of not only challenges but also strengths.

For instance, to highlight how different social class backgrounds can negatively shape the college experience, one first-generation student said, "Because my parents didn't go to college, they weren't always able to provide me the advice I needed, so it was sometimes hard to figure out which classes to take and what I wanted to do in the future." This story conveys a contextual understanding of difference by linking his previous social class context (i.e., not having college-educated parents) to an obstacle he faced in college (i.e., not knowing which classes to take). Similarly, after previously mentioning her parents' graduate-level degrees, one continuing-generation student said, "I went to a small private school, and it was great college prep. We got lots of one-on-one attention, so it was a big adjustment going into classes with 300 people." Like the first-generation student's story, the continuing-generation student's story links her social class background (i.e., having highly educated parents) to a college obstacle (i.e., having less attention and support in college than in high school).

The intervention also exposed students to examples of how their diverse social class backgrounds can shape the strategies and strengths they use to succeed in college. First- and continuing-generation stories discussed how they worked to address and overcome the particular challenges that they confronted. For instance, after the first-generation student in the example above described the challenge of not being able to get specific advice about college and careers from his parents, he said, "There are other people who can provide that advice, and I learned that I needed to rely on my advisor more than other students." In contrast, after the continuing-generation student described the challenge of being overwhelmed in large classes, she explained, "I felt less overwhelmed when I took the time to get to know other students in the class."

To further convey how one's background can positively shape the college experience, the student stories described how their backgrounds afforded them particular strengths. For instance, one first-generation student said, "I've been through a lot in my life. . . . It gave me perspective that made [university name] a lot easier to tackle. Midterms and papers seem hard, and they are, but at the same time they just seem like another drop in the bucket, and I love that perspective." This first-generation story links the student's social class background (i.e., overcoming adversity due to coming from a family without

college education) to a strength (i.e., having a broad perspective), emphasizing the contextual nature of her positive experiences in college. Likewise, after describing her parents as having obtained college degrees, one continuing-generation student said, "My choice to attend [university name] really was supported by everyone in my family. There was no sort of imposition by my parents [saying], 'You need to go to the [school name]' or anything like that. It was like, 'Wherever you want to go we'll fully support you in any way that we really can,' and so they were very open with it."

As in the first-generation story, the continuing-generation story links the student's social class background to a background-specific strength. In this case, having parents who are both college educated and financially secure means that those parents are more likely to be open and supportive about a student's college choices.

Students in the control intervention, in contrast, were exposed to similar stories that also included obstacles, strategies, and strengths. However, these stories did not communicate a contextual theory of difference—that is, the stories did not include background-specific information about how students' social class backgrounds shaped their college experiences. Using the same intervention format, incoming students learned from successful senior students' personal stories about their experiences in college—in particular, the challenges they faced and the strengths and strategies they leveraged to be successful. One story mentioned an obstacle that a student faced in college (e.g., the coursework was difficult) and then suggested a strategy for success, "Go to class, and pay attention. If you don't understand something or have a hard time with the material, meet with your teaching assistant or professor during office hours." As in the difference-education condition, participants in the control condition learned about students' different experiences in college, including the challenges they faced (e.g., a student found coursework to be difficult), and the strengths and strategies that they learned to be successful (e.g., a student found it helpful to meet with a professor). Notably, across both conditions, participants learned the same types of strategies for success, such as seeking help from peers and professors. The key difference between the conditions was that students in the control condition did not learn how their own and others' backgrounds could inform their college experiences (i.e., their obstacles, strengths, or strategies for success).

## NUANCES AND MISCONCEPTIONS

By providing a contextual theory of social group difference, difference-education has the potential to improve disadvantaged students' academic achievement throughout college. Yet, given the many challenges that come with addressing social group differences, what are some nuances that practitioners and researchers should consider when delivering a difference-education intervention? In the section that follows, we briefly describe some research-based strategies that can help ensure that difference-education is effective. Although these strategies have not been tested directly in the context of social psychological interventions, a wide range of research findings support their importance.

### Avoid Stereotyping

It is critical to avoid stereotyping people based on their social group memberships when discussing social group difference. Intentionally or unintentionally stereotyping students

will produce feelings of threat and exclusion, and ultimately undermine their engage-ment, motivation, and performance (e.g., Major, Spencer, Schmader, Wolfe, & Crocker, 1998; Steele, 2010). Instead, research suggests the importance of recognizing the inter-section of multiple identities that is unique to each person, as well as the importance of intragroup variation and diversity (e.g., Cole, 2009; Crenshaw, 1991; Markus & Conner, 2014; Rosenthal, 2016).

In a difference-education intervention, multiple strategies can be used to avoid ste-reotyping students or communicating limiting characterizations of their social groups. First, it is important to demonstrate variation in students' experiences both across and within social groups; signal that these social differences are tendencies or patterns, rather than one-to-one relationships; and show that social differences can evolve and change with new experiences. We designed the difference-education stories to differ not only across students' social class backgrounds but also within their particular social class background. For example, first-generation students' stories included similar, but not identical, content about their experiences in college. Another strategy is to maintain stu-dents' sense of individuality by showing them how the diverse sociocultural contexts of their lives matter in ways that are unique to their particular backgrounds and identities. For example, students' social class, race, gender, and/or other backgrounds can shape their experiences in distinct ways. Although the stories in difference-education focused primarily on social class, they also acknowledged intersectional identities (e.g., being an African American, male, first-generation college student).

## Acknowledge Both Negatives and Positives

It is important to acknowledge both negative and positive realities of social group differ-ence. On the one hand, teaching positive content alone (e.g., pride in one's group or iden-tity) would fail to prepare students for the background-specific challenges they are likely to face in college (e.g., Adams, Bell, & Griffin, 2007; Gurin et al., 2013). On the other hand, focusing on negative content alone (e.g., discussing stereotypes about one's group) would likely be highly demotivating for students (e.g., see Ben-Zeev et al., 2017). For example, research on "wise feedback" shows that negative feedback is motivating only when paired with "an invocation of high standards and by an assurance of the student's capacity to reach those standards" (Cohen, Steele, & Ross, 1999, p. 1302).

In a difference-education intervention, it is therefore important to provide stu-dents with opportunities to learn about how social group differences can impact their life experiences and outcomes in both positive and negative ways. In the difference-education interventions described above, we balanced students' discussion of the *nega-tive* background-specific challenges they faced with a discussion of the *positive* strengths and strategies (e.g., seeking help from professors) that can provide a path to success. For example, after the stories described students' challenges (e.g., choosing a major), they then discussed ways to overcome them, empowering participants with strategies they can use to be successful.

## Make Difference Relevant to Everyone

It is also important to make the experience of learning about social group differences relevant to everyone—both advantaged and disadvantaged students (see Moss-Racusin

AU: note that this term is not hyhenated per our house style.

et al., 2016; Sleeter, 2011). For disadvantaged students, seeing that difference is also relevant to advantaged students can help normalize the experience of difference and reassure them that they are not being singled out (e.g., Hummel & Steele, 1996). At the same time, including advantaged students in discussions of social group difference can help ensure that they will experience the topic of social group difference as self-relevant and important for their own lives and experiences, while also reducing the likelihood that they will perceive difference as a threat (e.g., Dover, Major, & Kaiser, 2016; Plaut, Garnett, Buffardi, & Sanchez-Burks, 2011; Wilkins, Hirsch, Kaiser, & Inkles, 2016).

In a difference-education intervention, one strategy to help all people see difference as self-relevant is to include the contrasting stories of both advantaged and disadvantaged students. In the difference-education interventions described above, the stories of the senior students, as well as the intervention participants, included both first- and continuing-generation students. The contrast between these stories of students from different social class backgrounds can help all students learn how their backgrounds and prior life experiences shape who they are. Including individuals from diverse backgrounds also makes it possible to frame the intervention as a general (rather than group specific) program that can help everyone adjust to a new setting.

## Give Voice to Underrepresented Narratives

Giving voice to underrepresented narratives—that is, student stories that are typically excluded from the mainstream—is crucial for fostering a sense of fit and inclusion, as well as the empowerment to find a path to success (e.g., Delgado & Stefancic, 2000; Duncan-Andrade & Morrell, 2008; Mitra, 2004). These narratives should provide diverse perspectives that can help to recognize and validate the life experiences of disadvantaged students.

In a difference-education intervention, it is important to give voice to these underrepresented narratives in two key ways. First, students' stories should enable participants, especially those who are disadvantaged by the setting, to recognize themselves in these stories. In the difference-education interventions described earlier, we presented students' stories in a way that illuminated their diverse experiences and paths to success. Second, it is critical to choose narratives that convey comfort and self-acceptance, rather than discomfort or embarrassment. In the difference-education interventions described above, students discussed difficult topics, but at the same time demonstrated an understanding and acceptance of their own experiences. For example, as one first-generation student confidently shared, "Once I came to [university name], I realized that I didn't have to be strong all of the time and that most people had no expectations of me besides trying my best and putting in effort in classes. After that, I realized that there was no shame in struggling or asking for help."

## IMPLICATIONS FOR PRACTICE

We believe that various behind-the-scenes strategies are critical to ensuring that a difference-education intervention will be successful. Key strategies include (1) adapting intervention content to the context of the study, (2) conducting the intervention during a period of transition, and (3) ensuring that participation is voluntary. Although these

strategies are relevant to all interventions, they can be applied specifically to difference-education interventions.

First, it is critical to adapt the stories to reflect students' actual experiences in a given college or university setting. To do so, we begin by talking to administrators and interviewing students to better understand the financial, academic, and psychological obstacles they face. We then adapt our intervention materials (i.e., the student stories) so that they reflect the actual experiences of students in that setting. For example, if a vast majority of students are Latinx, then it is critical to ensure that Latinx students' perspectives are well represented in the stories. Beyond representation, the stories should also highlight the common experiences, challenges, activities, and campus resources available there. For example, in a high-ranking university where first-generation college students are frequently a very small minority, these students are likely to confront more questions about belonging than they would if they were attending a lower-ranking university or community college where first-generation students are more highly represented. Student stories should be carefully adapted to include the most common and relevant issues.

Second, it is critical to conduct the intervention during a transitional moment. Whenever possible, we deliver the difference-education intervention at the beginning of the academic year, typically within the first month of the fall semester. We believe that the intervention content is likely to have the greatest impact in changing students' construal when they are still making sense of their experiences in this new setting. For example, when they are still learning about what it means to come from a different background or to have a different experience than other students. This meaning-making process could persist for different lengths of time depending on the context. After students have adjusted to a new setting for many months or years, their understandings of themselves and their experiences may be more difficult to change.

Third, whenever possible, it is critical to ensure that participation in difference-education intervention is voluntary, at least to some extent. As is the case in all interventions, it is important for participants to feel like they have a choice. When students choose to participate, particularly in middle-class U.S. contexts, they are more likely to be fully engaged and motivated to learn (see Patall, Cooper, & Robinson, 2008). Research suggests that forcing students to participate (e.g., in a mandatory program) is more likely to produce reactance and decrease engagement (see Dobbin & Kalev, 2013; Dobbin, Kim, & Kalev, 2011).

## IMPLICATIONS FOR PSYCHOLOGICAL THEORY

At first glance, a review of research in mainstream social psychology might suggest that helping disadvantaged students succeed requires avoiding discussions of social group difference altogether. Stemming from the essentialist view of difference, the topic of social group differences is often represented as stigmatizing and a potential threat to avoid. Markus (2008) argues that viewing difference in this negative light permeates much of social psychology. For example, the literatures on intergroup relations, implicit bias, social categorization, and social identity threat reflect this perspective on difference. According to research in these areas, when social group differences become salient, they have the potential to produce negative consequences, such as stereotyping, bias, and discrimination (Brewer & Miller, 1984; Dovidio & Gaertner, 2000; see Gurin & Nagda,

2006; Gurin et al., 2013, for discussion). For example, in the face of negative, essential-izing stereotypes about one's group, disadvantaged students are likely to underperform on achievement tasks (e.g., Steele, 2010).

In contrast to this commonly held negative view of "difference as a threat," research in cultural psychology and the literatures on multicultural and social justice education suggests that acknowledging social group difference need not create the experience of threat. Instead, when viewed from a contextual perspective, social group differences have the potential to serve as an important source of meaning, identity, and motivation (see Markus, 2008; see also Brannon, Taylor, Higginbotham, & Henderson, 2017). Consis-tent with these perspectives, the difference-education intervention presented here sug-gests that consequences of social group difference hinge on how students construe the meanings of difference and how it relates to their experiences as students. Indeed, as we argued throughout this chapter, when difference is represented and understood as contextual—that is, a product of people's ongoing participation in particular sociocul-tural contexts over time—it has the potential to be experienced positively and to help students find a path to success that takes their differences into account.

## FUTURE DIRECTIONS

This chapter explains what difference-education is, how to implement it effectively, and why it can be an effective approach to reducing educational disparities. Yet, a number of important questions remain unanswered. As is the case with other successful social psychological interventions, future research on difference-education interventions should further specify the necessary and sufficient components that drive the intervention's ben-efits. One important question is whether role models with similar backgrounds are neces-sary for students to gain a contextual understanding of difference. For example, would intervention participants need to listen to the stories of successful senior students, or could they simply read a research article about the contextual sources of social inequal-ity?

Future research should also investigate the specific ways in which interventions that provide a contextual theory can catalyze psychological and behavioral changes in a recur-sive cycle over time (see Miller et al., 2017; Yeager & Walton, 2011). Based on previous work on multicultural and social justice education, as well as the difference-education studies presented here, we suggest that fit and empowerment are two key processes that explain how a contextual theory changes behavior (e.g., seeking resources) and improves academic performance.

However, further work is needed to unpack precisely how these psychological changes work in both directions to sustain long-term behavioral changes (and vice versa). For example, in one direction, how might the psychological experiences of fit and empowerment work together to initiate key behavioral changes, such as seeking campus resources or developing a relationship with a mentor? And, in the other direction, how do these behavioral changes impact and sustain students' psychological changes over time as they progress through college and encounter new experiences? Research is also needed to better understand when the psychological benefits of fit and empowerment emerge only for the disadvantaged group targeted by the intervention versus when they occur for all students—both disadvantaged and advantaged.

Beyond fit and empowerment, research should consider other possible complementary processes through which learning a contextual theory of difference could catalyze psychological or behavioral change. Although we have shown that difference-education participants are more comfortable discussing their differences with a peer (Stephens, Townsend, et al., 2015), future work might also consider whether students who learn a contextual theory of difference become more culturally intelligent or competent—that is, able to more effectively navigate across different cultural contexts (e.g., Ang & Van Dyne, 2008; Earley & Ang, 2003; Leung, Ang, & Tan, 2014). Likewise, research could ask whether students develop metacognitive skills about how cultures work and how people's thoughts, feelings, and actions can be shaped by their cultures (e.g., Leung, Lee, & Chiu, 2013; Mor, Morris, & Joh, 2013).

In addition, future research should also consider how such a theory might be used to drive cultural change at an institutional level. As in other social psychological interventions (Yeager & Walton, 2011; Wilson, 2011), difference-education focuses on providing a new lay theory (i.e., a contextual theory of social group difference) to change students' psychological experiences (e.g., increase their fit and empowerment) and academic outcomes. We believe that these individual-level changes are not a panacea and may fail to support long-term change if they are not built into and reinforced by the larger college culture. To maintain and support these individual-level changes over time, we must also change institutional-level policies, practices, and resources (e.g., Markus & Conner, 2014; Markus & Hamedani, 2019; Stephens, Markus, & Fryberg, 2012; Walton & Wilson, 2018). For example, universities could communicate a contextual theory of difference in diversity courses; dorm programming or first-year programs or via shared cultural products, such as university websites or student guidebooks. At the same time, because people can shape their cultures (Markus & Hamedani, 2019), providing a contextual theory at an individual level also has the potential to change institutions. Increasing individual-level awareness and understanding of difference has the potential to create a more inclusive and accepting environment in which students are empowered to effect change.

In conclusion, even the most academically prepared first-generation students confront particular psychological obstacles that can fuel the social class achievement gap in higher education. This chapter provided an overview of how difference-education can help disadvantaged students overcome these psychological obstacles and find a path to success that takes their different experiences into account. The research reviewed here suggests that the difference-education approach has the potential to improve the academic outcomes of disadvantaged students by communicating a contextual theory of social group difference. When students learn that their differences are a product of contextual experience, rather than essential features of people or groups, they should experience greater fit and empowerment in college. In turn, their improved experiences in college can help them more fully engage in and take advantage of the resources available to them and ultimately improve their opportunity to succeed.

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