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The Social, Academic, and Health Implications of Polyculturalism for College Students

at a Diverse University

A Dissertation Presented

by

Lisa Rosenthal

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Abstract of the Dissertation

The Social, Academic, and Health Implications of Polyculturalism for College Students

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Intergroup conflict continues to be prevalent in diverse societies such as the United States

and to have a variety of negative consequences. Research on intergroup ideologies,

particularly multiculturalism and colorblindness, has demonstrated their importance in

the study of intergroup relations. While research shows that each of these ideologies has

positive associations with intergroup attitudes and behaviors, each also has some negative

associations, prompting calls for studying other ideologies. This dissertation presents

some of the first empirical tests of a newly studied intergroup ideology, polyculturalism,

which emphasizes that different racial, ethnic, and cultural groups have interacted and

greatly influenced each other and continue to do so. I aimed to build and expand on

intergroup ideologies research by (1) directly comparing polyculturalism's associations

with intergroup attitudes, intergroup anxiety, and academic self-efficacy in diverse

college settings to multiculturalism's and colorblindness' associations with those

variables (pilot study, Study 1); (2) further examining polyculturalism's associations with

social, academic, and health outcomes, namely intergroup anxiety, sense of belonging at one's university, academic confidence, and motivations for alcohol consumption, which is a health problem prevalent on college campuses (Study 2); and (3) testing a theoretical model of the connections among polyculturalism, social, academic, and health outcomes, by testing possible mediators of polyculturalism's relationships with outcome variables (Studies 1 and 2). Findings for multiculturalism and colorblindness were somewhat mixed, with some positive, some negative, and some nonsignificant associations with outcome variables. However, polyculturalism was consistently associated with less support for social inequality, greater interest in, appreciation for, and comfort with diversity, less intergroup anxiety, greater academic self-efficacy, greater sense of belonging at one's university, and less drinking motivated by intergroup discomfort. Additionally, intergroup anxiety was a significant mediator of the relationships that polyculturalism had with academic self-efficacy and sense of belonging at one's university, and academic self-efficacy was a significant mediator of the relationship between polyculturalism and intergroup anxiety. Taken together, findings highlight that polyculturalism has positive social, academic, and health implications for college students in diverse academic settings, providing some evidence for the proposed theoretical model. It would be fruitful for future work to further investigate polyculturalism.

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Introduction

Prejudice and strained intergroup relations continue to be prevalent and pressing

social problems in racially and ethnically diverse societies around the world, such as the

United States, and to have a wide variety of negative social, academic, and health

consequences for people from diverse backgrounds (e.g., Esses & Gardner, 1996;

Gaertner & Dovidio, 2005; Zirkel & Cantor, 2004). These negative consequences include

holding negative and hostile attitudes toward outgroups, avoiding intergroup contact,

experiencing stress and anxiety when interacting with people from different backgrounds,

having less confidence or performing worse academically in diverse educational settings,

and even being involved in instances of intergroup conflict and violence (e.g., Phinney,

Ferguson, & Tate, 1997; Zirkel, 2008). Many people still tend to self-segregate in settings

such as schools, workplaces, and communities, and discomfort and conflict still often

arise when people are in more diverse, integrated settings. Research suggests people's

avoidance of intergroup contact may be in part because people continue to hold negative

attitudes toward outgroups (e.g., Sidanius & Pratto, 1999), focus on differences among

racial and ethnic groups (e.g., Bigler, 1999; Miville et al., 1999) and expect to experience

negative affect and anxiety during intergroup interactions (e.g., Islam & Hewstone, 1993;

Mallett, Wilson, & Gilbert, 2008). Recently, there has been greater attention to intergroup

anxiety with increasingly integrated settings in the United States, and indeed the research

shows that many people do experience a substantial amount of threat, stress, and

intergroup anxiety (e.g., Blascovich, Mendes, Hunter, Lickel, & Kowai-Bell, 2001; Britt,

Boniecki, Vescio, Biernat, & Brown, 1996; Mendes, Blascovich, Lickel, & Hunter, 2002;

Plant & Devine, 2003). The intergroup stress and anxiety people experience can both

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motivate people to avoid future intergroup interactions and negatively affect cognitive functioning, academic comfort or confidence, and overall well-being, among other outcomes (e.g., London, Downey, Bolger, & Velilla, 2005; Mendes, Major, McCoy, & Blascovich, 2008; Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002; Richeson & Shelton, 2003; Steele & Aronson, 1995; Walton & Cohen, 2007). Thus, understanding what factors contribute to intergroup attitudes and affective experiences while interacting with diverse others is vital for reducing prejudice, discrimination, intergroup conflict, and violence, as well as for improving the academic and health outcomes of people living, working, and going to school in diverse settings.

Abundant research has shown that the study of intergroup ideologies, such as colorblindness and multiculturalism, provides a greater understanding of intergroup attitudes, behaviors, and interactions, highlighting the continued importance of considering intergroup ideologies. Past findings indicate that greater endorsement of colorblindness or multiculturalism is related to more positive intergroup attitudes, such as lower ingroup bias and ethnocentrism (e.g., Correll, Park, & Smith, 2008; Richeson & Nussbaum, 2004; Verkuyten, 2005; Vorauer, Gagnon, & Sasaki, 2009; Wolsko, Park, & Judd, 2006). At the same time, critics have pointed out theoretical weaknesses with each ideology (e.g., Bigler, 1999; Jones, 1997; Rosenthal & Levy, 2010; Schofield, 1986), and indeed empirical work indicates that greater endorsement of colorblindness or multiculturalism is related to some more negative intergroup attitudes as well (e.g., Richeson & Nussbaum, 2004; Ryan, Hunt, Weible, Peterson, & Casas, 2007; Ryan, Casas, & Thompson, 2010; Wolsko, Park, Judd, & Wittenbrink, 2000). Recently, there have been calls for revisions to the study of intergroup ideologies, including the study of

new ideologies (e.g., Rosenthal & Levy, 2010; Ryan et al., 2007; Park & Judd, 2005; Wolsko et al., 2000; Verkuyten, 2005).

This dissertation presents some of the first empirical tests of the implications of a newly studied intergroup ideology, polyculturalism, considered by critics of intergroup ideologies to hold great promise in providing a fuller understanding of intergroup relations (Kelley, 1999; Prashad, 2001; 2003). These studies examine the relationship between endorsement of polyculturalism (which focuses attention on past and present interactions, influences, and connections among different racial and ethnic groups) and established measures of intergroup attitudes, intergroup anxiety, and additionally important academic (academic self-efficacy, sense of belonging at one's university) and health markers (drinking motivated by discomfort in intergroup settings) among racially and ethnically diverse undergraduates. As will be elaborated, I aimed to test a theoretical model (see Figure 1) of polyculturalism's consequences for individuals in diverse settings. Namely, I proposed to test the hypothesis that endorsement of polyculturalism should be associated with more positive social (i.e., less support for social inequality, increased interest in and appreciation for diversity, and less intergroup anxiety or greater comfort with diversity), academic (i.e., greater academic confidence), and health (i.e., less drinking motivated by discomfort in intergroup settings) outcomes, and that some of the social outcomes (i.e., particularly less intergroup anxiety or greater comfort with diversity) should be some of the mechanisms through which polyculturalism is associated with those academic and health outcomes for students in racially and ethnically diverse educational settings. As well, I suggest that these relationships may be bi-directional, with academic and health outcomes feeding back to affect social outcomes, as well as

reinforcing each other.

As background and introduction to the dissertation, I first provide a brief review of past work on the two most studied intergroup ideologies (colorblindness and multiculturalism) and studies comparing those ideologies, and then elaborate on polyculturalism as a newly studied intergroup ideology. Next, I explain the theoretical model I propose of polyculturalism's relation to social, academic, and health outcomes, as well as some of the other gaps in the literature that I aimed to fill. Then, I give an overview of the studies included in this dissertation, which is aimed at providing some of the first empirical tests of the associations of endorsement of polyculturalism, as well as my specific hypotheses.

Intergroup Ideologies

Here, I begin with a review of colorblindness, which was initially the most popular ideology endorsed by scholars (e.g., Allport, 1954). I then review work on multiculturalism, which was essentially introduced as a preferred alternative to colorblindness for fostering positive social atittudes (e.g., Banks, 2004). Finally, I introduce polyculturalism, especially highlighting why it seems to be an ideology with promise for intergroup relations.

Colorblindness. People who endorse colorblind ideology essentially believe that group categories (e.g., race) should be de-emphasized, and presumably such a belief fosters reduced prejudice because groups and group memberships are therefore not highlighted in getting to know or judging others (Allport, 1954; Ryan et al., 2007; Wolsko et al., 2000). Colorblindness can take different forms (for a review, see Rosenthal & Levy, 2010). For one, people can focus on the similarities across groups of

people ("we are all members of X nationality"); indeed, focusing on people's common ingroup identity ("we"), which transcends intergroup distinctions ("us" vs. "them"), can improve intergroup attitudes (see relevant theorizing and empirical support for the Common Ingroup Model; Gaertner & Dovidio, 2000; Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993). A focus on cross-group "similarities" could be taken to an extreme – often referred to as the assimilation ideology, which is captured by the "melting pot" notion (Allport, 1954) that people from diverse backgrounds should adopt the same ways of the mainstream, dominant culture (see Neville, Lilly, Duran, Lee, & Browne, 2000). While the "similarities" and assimilation forms of colorblindness are distinct (see Ryan et al., 2010), both have been criticized for being less suited to or desirable for members of marginalized groups (however, see empirical support for Dual Identities component of Common Ingroup Identity Model: Dovidio, Gaertner, & Saguy, 2009; Gaertner & Dovidio, 2000; and the Mutual Intergroup Differentiation Model: Brown & Hewstone, 2005; Hewstone & Brown, 1986). Downplaying group distinctions in a society still wrought with racism can also lead one not to notice or care about persistent racism and the marginalization of nondominant cultures (Neville et al., 2000; Nieto, 1996; Prashad, 2001; Schofield, 1986; Zirkel, 2008). Furthermore, assimilation is not necessarily successful or desirable for members of nondominant groups (e.g., Garcia & Hurtado, 1995; Van Oudenhoven, Prins, & Buunk, 1998), particularly those who have strong ethnic identities (e.g., see Gonzales & Cauce, 1995).

Also, people can be colorblind by focusing their attention on individual differences ("each person is unique"), as captured by the popular saying, "You can't judge a book by its cover" (see Ryan et al., 2007; Schofield, 1986). Focusing on people's

individual differences has been related to lower prejudice among children (e.g., see relevant theorizing and empirical support from Cognitive Developmental Theory; Aboud & Fenwick, 1999) and adults (e.g., see relevant theorizing and empirical support from Brewer and Miller's Decategorization Model; Brewer & Miller, 1984). Nonetheless, this "uniqueness" form of colorblindness has been criticized as being too cognitively taxing for people to realistically use in their day-to-day lives (e.g., Fiske, Lin, & Neuberg, 1999; Gaertner & Dovidio, 2000). All forms of colorblindness have been criticized for directing attention away from the valued identity of members of marginalized racial and ethnic groups and for working against people's needs for affiliation (e.g., see Baumeister & Leary, 1995) and to divide their world into distinct social categories (e.g., Turner, Hogg, Oakes, Richer, & Wetherell, 1987; also see Brewer, 1991).

Multiculturalism. Partly in response to these concerns about colorblind ideology, researchers have suggested that multicultural ideology is better suited to fostering more positive intergroup attitudes. People who believe multiculturalism think it is important to pay attention to and be knowledgeable about people's group memberships such as their race and ethnicity; presumably prejudice is reduced for people who hold this ideology and have developed sufficient knowledge about and understanding of other groups' rich histories and current customs (Banks, 2004; Park & Judd, 2005; Sleeter, 1991; Zirkel, 2008). Like colorblindness, multiculturalism has taken different forms (for a review, see Rosenthal & Levy, 2010). In a popular version of multiculturalism, people focus their attention on learning about different racial and ethnic groups, including their customs and traditions, as a way to obtain a better understanding of the lives, experiences, and perspectives of diverse others (e.g., Ryan et al., 2007; 2010; Wolsko et al., 2000; 2006).

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Endorsement of multiculturalism may also take the form of learning to appreciate and value different groups' positive contributions to a diverse society ("appreciate contributions" form; e.g., Ryan et al., 2007; 2010; Wolsko et al., 2000; 2006). Additionally, people who endorse multiculturalism may focus their attention on groups maintaining their own cultures and traditions, such as for immigrants in a new country or society, or for nondominant groups in relation to the dominant culture ("maintain cultures" form; e.g., Berry & Kalin, 1995), which is in opposition to the assimilation ideology.

Noting concerns with all three forms of multiculturalism, critics suggest that if people emphasize the distinctness of racial and ethnic groups within a diverse society, even if casting those differences in a positive light, they are focusing on how cultures are separate, bounded, and unchanging entities, which is an inaccurate portrayal and can inadvertently increase stereotyping and discrimination (e.g., Bigler, 1999; Prashad, 2001). Although this concern may seem to apply to younger children lacking cognitive sophistication, multiculturalism's relationship to stereotyping has been documented in college students and adults as well (Ryan et al., 2007; 2010; Wolsko et al., 2000). Critics have also argued that a belief in multiculturalism (especially in its "important differences" form, but possibly also in other forms) can support nationalism and racism by promoting the use of cultural explanations to legitimize beliefs about the differences between racial and ethnic groups, as a replacement for the biological explanations that were used in the past and have been scientifically invalidated (e.g., Prashad, 2003).

Studies comparing colorblindness and multiculturalism. Studies that have directly compared multiculturalism and colorblindness have produced somewhat mixed results

(for a review, see Rosenthal & Levy, 2010). As one example, Ryan et al. (2007) conducted two correlational studies with both Black and White American participants, the first with community members attending a diversity program, and the second with college students. In these studies, they found that Black Americans who more strongly endorsed multiculturalism than colorblindness demonstrated greater stereotyping, but White Americans who more strongly endorsed colorblindness than multiculturalism demonstrated greater stereotyping. In their second study, they also found that for all participants, endorsing multiculturalism more than colorblindness was associated with less ethnocentrism. As well, Ryan et al. (2010) conducted a study examining the associations of these ideologies among Latino and White Americans. In this study, they found that multiculturalism was associated with Latino Americans perceiving less variability among White Americans, but White Americans perceiving greater variability among Latino Americans. For both Latino and White Americans, multiculturalism was generally associated with greater stereotyping but less ingroup bias or ethnocentrism, although the relationship with stereotyping was stronger for Latino participants. And, colorblindness did not have any significant associations in this sample.

There are too many studies comparing the consequences of endorsement of multiculturalism and colorblindness to thoroughly describe all of their findings here, but a summary of the findings again suggests some positive and some negative consequences of each of these ideologies. Multiculturalism has generally been related to more positive intergroup attitudes than colorblindness, although both ideologies, consistent with criticisms, are associated with some negative intergroup attitudes. Specifically, multiculturalism has been related to lower ingroup bias and ethnocentrism (e.g., Richeson

& Nussbaum, 2004; Verkuyten 2005; Vorauer et al., 2009), greater willingness for intergroup contact (e.g., Wolsko et al., 2006), and even improved self-esteem for members of marginalized groups (e.g., Verkuyten, 2009), but also greater stereotyping (e.g., Ryan et al., 2007; 2010; Wolsko et al., 2000). Colorblindness has been related to lower ingroup bias and ethnocentrism in some samples (e.g., Correll et al., 2008; Wolsko et al., 2000), but also greater ethnocentrism and stereotyping compared to multiculturalism, in other samples or with implicit measures (e.g., Correll et al., 2008; Richeson & Nussbaum, 2004; Ryan et al., 2007; Vorauer et al., 2009). Additionally, some of the associations these ideologies have with intergroup attitudes vary by respondents' race/ethnicity or social group status (e.g., Ryan et al., 2007; Verkuyten, 2005; 2009; Vorauer et al., 2009), and by the social context or circumstances (e.g., Correll et al., 2008).

Polyculturalism. Given the aforementioned theoretical concerns and mixed findings for multiculturalism and colorblindness, scholars have called for shifts in the study of intergroup ideologies, such as revisions to the ideologies or the study of new ideologies (e.g., Banks, 2004; Ryan et al., 2010; Zirkel, 2008). A particularly promising and newly studied intergroup ideology is polyculturalism, which was first described by historians Kelley (1999) and Prashad (2001; 2003). People who believe in polyculturalism focus their attention on how cultures have throughout history interacted, influenced, and shared ideas and practices with each other, and how they continue to do so today. Thus, individuals who endorse polyculturalism view people of all racial and ethnic groups as deeply connected to one another through their past and current interactions and mutual influences on each other's cultures (Kelley, 1999; Prashad,

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2003). Moreover, individuals who believe in polyculturalism do not view cultures as static, unchanging entities that belong to only one group or divide up different groups of people.

Accordingly, polyculturalism may foster more positive intergroup attitudes by making people feel more connected to members of different groups, similar to the goals of other related, but distinct lines of significant work on intergroup contact and mutual interdependence models, as noted earlier in relation to colorblindness (e.g., Common Ingroup Model: Gaertner & Dovidio, 2000; Mutual Intergroup Differentiation Model: Hewstone & Brown, 1986; also see, Brown, Vivian, & Hewstone, 1999; Brown & Wade, 1987; Deschamps & Brown, 1983; Hornsey & Hogg, 2000). However, polyculturalism is distinct from these models because individuals who endorse polyculturalism are focused on the ways that the cultures of all racial and ethnic groups around the world have always been and continue to be influenced by each other and are not, by definition or by extension, focused on developing a superordinate identity or common goals with other groups. Also, believing polyculturalism does not mean that one needs to have had or seek out intergroup contact; instead the polycultural ideology focuses people's attention on the outcomes and products of past and current contact between racial and ethnic groups and cultures. Nonetheless, polyculturalism likely fosters increased interest in and comfort with intergroup contact because of its focus on the ways that different racial, ethnic, and cultural groups have always interacted and continue to do so.

Similar to how multicultural ideology evolved as a reaction to colorblind ideology, which was at that time the most popular ideology, polycultural ideology evolved as a reaction to multicultural ideology, which has been the more favored ideology for some

time (e.g., Banks, 2004). Endorsement of polyculturalism, like endorsement of multiculturalism, involves recognizing people's racial and ethnic backgrounds. However, rather than focusing on differences or distinctions between groups, people who endorse polyculturalism focus on the many connections among groups. These "interconnections" are not the same as the cross-group similarities that can be the focus of colorblind ideology (e.g., all being American). Instead, endorsement of polyculturalism focuses people's attention on connections among racial and ethnic groups through their shared past and current interactions and exchanges that have actually greatly influenced different cultures, such as with ideas, customs, or behaviors. Kelley (1999) conveys the polycultural ideology in the following quote: "All of us, and I mean ALL of us, are the inheritors of European, African, Native American, and even Asian pasts, even if we can't exactly trace our blood lines to all of these continents" (p. 81). Others endorsing a polycultural ideology might point out as examples that salsa music and dance derive from the influences of African, European, and Indigenous American cultures, that African and Asian (among other) cultures mutually influenced Kung Fu (see Prashad, 2001), and that the combined Zulu and Indian influences on health and medical practices are readily apparent in contemporary South Africa (see Flint, 2006).

At the same time, as polyculturalism has not yet been empirically tested, it is also possible that there could be some negative consequences of this ideology. People's recognition of the interactions and influence between cultures could be associated with resentment toward outgroups or greater anxiety when interacting with members of outgroups if people's focus is on past negative interactions (e.g., slavery, colonization). For example, members of marginalized or underrepresented groups who endorse

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polyculturalism could have negative attitudes toward White Americans and not want to interact with them or feel uncomfortable around them because of perceiving White American culture as being dominant and forced upon their racial/ethnic group, or perceiving that their own group's contributions to other cultures were involuntary (e.g., attained or taken through colonization). Thus, the potential positive and negative consequences of polyculturalism for intergroup attitudes need to be tested.

In summary, endorsement of polyculturalism may be associated with more positive intergroup attitudes and feelings about diversity and interacting with diverse others. Because polyculturalism involves a focus on the ways that different racial, ethnic, and cultural groups have interacted and influenced each other over time, this ideology may help people perceive intergroup interactions as more common or acceptable, view different groups as more equal to each other (as there have been mutual exchanges and influences), and generally have more positive feelings toward people of different racial and ethnic groups as well as interactions among diverse individuals.

I hypothesize that polyculturalism is an ideology associated with more positive social outcomes, including intergroup attitudes and comfort in diverse, intergroup social settings (see link between polyculturalism and social outcomes in Figure 1). And, one of the main goals of this dissertation was to test that hypothesis, and compare polyculturalism's associations with intergroup attitudes and social experiences in diverse settings with the associations that multiculturalism and colorblindness have. While the work examining the associations of individuals' endorsement of multiculturalism and colorblindness has mostly focused on intergroup outcomes such as bias and stereotyping, the broader intergroup relations literature has increasingly been focusing on other

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important outgrowths of individuals' intergroup attitudes, such as the impact on academic, work, and health domains. Therefore, another goal of this dissertation is to examine the links that polyculturalism potentially has with these domains that are relevant to diverse college students, including academic outcomes (i.e., academic confidence, sense of belonging) and health outcomes (i.e., motivations for drinking alcohol), potentially with dynamic links among social, academic, and health variables (see remaining links in Figure 1), which is elaborated in the next section.

The Connection between Intergroup Relations and Academic and Health Outcomes

For people of all ages working, living, or going to school in racially and ethnically diverse settings, intergroup ideologies, attitudes, and relations may play a key role in predicting a wide range of behaviors and outcomes, including those related to academics and health (e.g., Banks, 1995; Purdie-Vaughns, Steele, Davies, Ditlmann, & Crosby, 2008; Steele, 1997; Zirkel, 2008). As well, much work over several decades and areas of research has demonstrated that threat, stress, and anxiety can have strong, negative effects on belonging, achievement, and health (e.g., Geronimus, Hicken, Keene, & Bound, 2006; Lazarus & Folkman, 1984; Mendoza-Denton et al., 2002; Steele & Aronson, 1995). Integrating findings across these literatures suggests that intergroup anxiety or people's level of comfort when interacting with people of different racial and ethnic backgrounds, is potentially a key mechanism or mediating factor involved in the relationship between intergroup ideologies or attitudes and academic and health outcomes. For instance, a student who endorses polyculturalism strongly may be more likely to have lower levels of anxiety around diverse racial and ethnic groups, and because of this may be more likely to be more confident and thrive academically in a

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diverse university and also be less likely to engage in negative health behaviors such as using alcohol to cope with anxiety experienced while interacting with diverse others in social settings on campus. Although work on individuals' endorsement of intergroup ideologies (multiculturalism and colorblindness) has not yet examined the connection with individuals' academic confidence or health behaviors, evidence from the broader intergroup relations literature taken together suggests that academic and health implications are important areas of inquiry that may be connected to individuals' belief systems.

In terms of academic implications, college campuses can be more racially and ethnically diverse than people's neighborhoods or primary and secondary schools. As well, undergraduate education is an important step in promoting further educational and career achievement. For these reasons, undergraduate students are a particularly important population to study in terms of the connection between intergroup ideologies, intergroup anxiety, and academic and health outcomes. For example, the beginning of college is a time of heightened stress for all undergraduates as they try to maneuver their way through a novel environment (e.g., London et al., 2005), and entering one that is more racially and ethnically diverse than their previous environments adds significant social stress of interacting and living with diverse others on a daily basis (e.g., Mendoza-Denton et al., 2002). Students at a racially and ethnically diverse university may be interacting with people from different backgrounds at a much higher rate than they are used to, even if these interactions are not by choice, such as with classmates, roommates, or in common areas such as the library, university gym, or dining areas. Because of this, students who are uncomfortable interacting with people from different racial and ethnic

backgrounds may experience a significant amount of stress that can potentially interfere with various things, such as their comfort and sense of belonging at their university, and their confidence academically.

Additionally, since alcohol is often readily available in social settings at colleges, students who are not comfortable in racially/ethnically diverse social settings may often turn to alcohol to help them cope with the social anxiety and stress they are experiencing, to calm down, and to feel more relaxed when they are interacting with people from different racial and ethnic backgrounds (e.g., see Lewis et al., 2008). The disinhibiting effects of alcohol may be seen and used as a means of reducing the stress of intergroup social interactions and therefore serve as a mechanism for connecting and engaging with others that they are not used to interacting with and around which they are uncomfortable.

However, students who do not experience anxiety and stress when interacting with people from different racial and ethnic backgrounds theoretically should not experience these negative consequences of that anxiety, and therefore should feel that they fit in more at a diverse university, should be more at ease and confident academically in diverse learning environments, and should be less likely to use alcohol to cope with or reduce the stress experienced in intergroup social settings. Thus, if intergroup ideologies such as polyculturalism have a connection to levels of intergroup anxiety, they may have an important connection to these academic and health outcomes.

While I suggest that intergroup anxiety, or level of comfort with diverse others, may be a key mediating variable for the relationships that polyculturalism has with academic and health outcomes, I also think it is possible that these relationships can be

bi-directional (see Figure 1). In others words, polyculturalism's potential impact on academic and health outcomes may also then affect social outcomes, such as intergroup anxiety. The more students are confident academically in their diverse classrooms, and the less they feel the need to drink to feel relaxed during intergroup interactions, the more students may feel confident and comfortable in their ability to interact with and be around diverse others in their classes and other social settings, free of concerns. Therefore, the opposite direction of mediation may also occur, with academic and health variables playing a mediating role in the relationship between polyculturalism and intergroup anxiety. Finally, it is also likely that academic and health outcomes affect each other, so polyculturalism may additionally affect academic and health outcomes through each other. For example, with increased sense of belonging at a university, one may feel less need to drink alcohol to feel comfortable around diverse others, or with less drinking, one may feel more confident academically. It is likely that there are dynamic and bi-directional relationships among the social, academic, and health outcomes that polyculturalism is associated with.

Theoretical Model Summary: Polyculturalism's Hypothesized Connection to Social, Academic, and Health Outcomes

Taken together, I hypothesize that endorsement of polyculturalism should be related to social outcomes including more positive intergroup attitudes (i.e., attitudes toward social inequality and diversity), and less intergroup anxiety or greater comfort around people from different racial and ethnic groups. Specifically, polyculturalism theoretically seems promising as an ideology that could improve attitudes toward outgroups and diversity, and act as a buffer against the social stress and anxiety that

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college students often feel at one of the many diverse universities across the United States. I label these intergroup attitudes and anxiety/comfort levels as social outcomes that I theorize are consequences of polyculturalism, as these variables involve social attitudes and experiences related to intergroup relations and interactions.

Further, if students' endorsement of polyculturalism is related to feeling more connected and comfortable around racially and ethnically diverse others, then I also hypothesize that among students at a diverse university, greater endorsement of polyculturalism should be associated with greater academic confidence and feelings of belonging at one's university (labeled as academic outcomes), as well as less need to use alcohol to cope with or reduce intergroup anxiety (labeled a health outcome). It is also possible that the effects that polyculturalism has on academic and health outcomes affect each other as well as social outcomes such as intergroup anxiety.

In summary, I propose that theoretically (see Figure 1 for outline of theoretical model), endorsement of polyculturalism should be associated with more positive social (i.e., less support for social inequality, increased interest in and appreciation for diversity, and lower intergroup anxiety or greater comfort with diversity), academic (i.e., greater confidence academically), and health (i.e., less drinking motivated by discomfort in intergroup settings) outcomes, and that some of the social outcomes (i.e., lower intergroup anxiety or greater comfort with diversity) should be one of the mechanisms through which polyculturalism is associated with those academic and health outcomes for students in diverse educational settings. Additionally, I suggest that these relationships may be bi-directional, with academic and health outcomes feeding back to affect social outcomes, as well as reinforcing each other.

As polyculturalism's relationship with any of these variables has yet to be empirically tested, the main goal of the current investigation was to provide some of the first investigations of polyculturalism's relationships with the theoretically-guided social, academic, and health outcomes.

Further Considerations in Testing the Proposed Theoretical Model

In conducting some of the first empirical tests of polyculturalism's associations with social, academic, and health outcomes, there are several other important considerations that I aimed to simultaneously address. First, because polyculturalism is thus far an empirically untested ideology, research needs to test it in comparison to other ideologies that have been studied in past work. To do this, in the pilot study and Study 1, multiculturalism and colorblindness are included as comparison intergroup ideologies.

Second, to fully understand the associations that these ideologies have with social, academic, and health variables in diverse contexts, it is necessary to conduct studies with diverse samples, including people from all racial and ethnic backgrounds (Shelton, 2000). Although some researchers, such as Ryan et al. (2007; 2010), have importantly included samples of Latino and Black Americans in their studies, the majority of studies examining intergroup ideologies and their associations with intergroup attitudes and behaviors in the United States still focus on White American participants, and their attitudes toward marginalized groups (most often Black Americans). Much of the attention given to intergroup tension in the United States has been focused on conflict between White and Black Americans, stemming in part from a unique legacy of slavery, segregation, and violence, as well as continued stereotyping, inequality, and discrimination against Black Americans. However, increasingly attention is also being

given to other racial and ethnic groups, including Latino and Asian Americans, and to

intergroup relations involving all of these groups, given the increasing diversity of the

United States and many communities across the country. Research on these ideologies,

therefore, should continue to include both Black and White American samples, but

should also include samples of other racial and ethnic groups to understand the

consequences of these ideological approaches for all groups, which was a main goal of all

of the studies in this dissertation, especially Study 1.

Third, as already mentioned, the outcomes that researchers have explored in

studies examining these ideologies have been somewhat limited, mostly focusing on

ingroup bias or ethnocentrism and stereotyping. Established and reliable measures of

many important and relevant intergroup attitudes variables have not yet been tested in

relation to these approaches. One such variable is social dominance orientation (SDO;

Pratto, Sidanius, Stallworth, & Malle, 1994), which refers to people's attitudes toward,

acceptance of, and support of social inequalities between groups. SDO has been widely

studied, and is considered an important indicator of people's social, political, and

intergroup attitudes (see Pratto, Sidanius, & Levin, 2006). Another such variable is

universal-diverse orientation (Miville et al., 1999), which refers to people's attitudes

toward diversity and difference, specifically their interest in having contact with members

of other groups, their appreciation for diversity, and their feelings of comfort in dealing

with people from different backgrounds. This seems to be a particularly relevant variable

to examine in relation to these ideologies, which are a part of the effort to improve

intergroup relations and people's experiences in diverse settings and societies.

Experiences of intergroup anxiety have also yet to be explored as consequences of these

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ideologies, although intergroup anxiety is a key variable of interest in intergroup relations (e.g., Britt et al., 1996; Page-Gould, Mendoza-Denton, & Tropp, 2008; Plant & Devine, 2003). Intergroup anxiety also seems to be a particularly relevant and important variable to test in this context, as these ideologies are directly related to people's thoughts about and experiences in diverse settings and because of the already mentioned consequences of people's experiences with stress and anxiety in intergroup settings.

Additionally, as already discussed, academic and health outcomes seem particularly relevant to intergroup ideologies, especially for college students at a diverse university. If these ideologies are related to how comfortable people are in diverse settings, it is likely that they also are related to students' academic self-efficacy (students' confidence in their ability to complete their schoolwork and succeed in their classes, even when faced with challenges; e.g., Elias & Loomis, 2000) and sense of belonging at one's university (e.g., Mendoza-Denton et al., 2002), as well as intergroup drinking behavior (drinking alcohol motivated by trying to reduce discomfort felt while interacting with people from different racial/ethnic backgrounds; e.g., Lewis et al., 2008) at diverse schools. Yet, research has not tested the implications of these ideologies for academic self-efficacy and drinking motivations in students who are in diverse educational settings, and therefore I included these outcomes in Studies 1 and 2 of this dissertation.

The Current Investigation: Summary

Based on past research findings for colorblindness and multiculturalism, the hypothesized consequences of polyculturalism, and the identified gaps in this area of research, I had several goals for the current dissertation. I aimed to directly compare the associations that colorblindness, multiculturalism, and polyculturalism have with

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intergroup attitudes and experiences in diverse settings (pilot study and Study 1). As well, I aimed to use a wider variety of relevant, established, and reliable outcome measures to test theoretically-guided, hypothesized consequences of polyculturalism and the other ideologies that have yet to be tested but are established as important consequences of intergroup relations (all studies). I aimed to collect data with racially and ethnically diverse samples in order to provide a greater understanding of the implications of polyculturalism and the other ideologies for students of different backgrounds (all studies, especially Study 1). In the pilot study, I created and tested three scales for measuring endorsement of polyculturalism, multiculturalism, and colorblindness, tested whether these three ideologies represent distinct constructs, tested people's relative endorsement of each of the ideologies, and tested the correlates of all three of these ideologies for some intergroup attitudes (i.e., support of inequality and feelings about diversity). In Study 1, I used the scales created in the pilot study to test the relationships of these ideologies with intergroup attitudes and experiences in diverse settings (i.e., support of inequality, feelings about diversity, intergroup anxiety, and academic self-efficacy). In Study 1, I also collected a large enough sample of undergraduates to thoroughly test racial/ethnic differences in these variables and the relationships between them. In Study 2, I further examined the relationships that polyculturalism has with intergroup anxiety, sense of belonging, academic confidence, and drinking behavior motivated by discomfort experienced in diverse social settings.

Hypotheses. In summary, based on the proposed theoretical model (see Figure 1), I hypothesized that among college students at a racially and ethnically diverse university, endorsement of polyculturalism would be related to more positive social, academic, and

health outcomes, while the findings for multiculturalism and colorblindness would not be consistently positive or negative, consistent with past work.

Because people who believe in polyculturalism focus on the mutual influences and interactions (historical and current) among different racial and ethnic groups, they should view groups on a more level playing field with each other, thereby opposing social hierarchies or inequality (e.g., lower social dominance beliefs; Pratto et al., 1994). Polyculturalism also allows for the recognition of racism and inequality, but emphasizes connections among groups instead of differences between them, which could all together lead people to view different racial and ethnic groups as being equal and to support efforts to achieve equality between groups. Colorblindness theoretically should also be associated with lower SDO because colorblindness suggests that group categories should be de-emphasized, thus disputing group differences or group inequality. However, as noted earlier, critics argue that colorblindness promotes ignoring the existence of racism and inequality, leading to an adoption of explanations that blame individuals in marginalized racial and ethnic groups for racial disparities. Those explanations could lead to increased acceptance of the idea that some groups are better than others and not all groups deserve equal treatment (i.e., SDO). Multiculturalism, although focused on differences among groups (e.g., traditions), tends to draw attention to positive aspects of these groups or to give a balanced view of the strengths and weaknesses of groups; therefore, it might be expected that multiculturalism would be associated with lower SDO. Yet, as critics of multiculturalism have pointed out, its emphasis on group differences, even if celebrating positive ones, may implicitly suggest group superiority, similar to its relation to increased stereotyping.

Because people who believe more in polyculturalism give greater recognition to the contributions of all groups to all other groups (including ingroups) and society at large, greater endorsement of polyculturalism should foster greater interest in getting to know people from and learning about other racial and ethnic groups' cultures (e.g., greater interest in diversity and greater appreciation for differences; Fuertes, Miville, Mohr, Sedlacek, & Gretchen, 2000). If people recognize that their cultures are influenced by and connected to other people's cultures, this could increase their interest in and appreciation for difference and diversity, as it implies that other people's cultures are inherently related to one's own culture, and knowing about other people's cultures may actually help understand one's own culture. Colorblindness on the other hand is not likely to be associated with greater interest in or appreciation for diversity and differences between groups of people because of its de-emphasis of issues related to race and ethnicity. Multiculturalism should be associated with greater interest in and appreciation for diversity because almost by definition, multiculturalism should be related to embracing diversity.

Also, polyculturalism's focus on these mutual influences and interactions among all groups (including their ingroups), likely results in seeing greater connections between themselves and other groups such that they perceive intergroup interactions to be more common and are more comfortable with people of many backgrounds (e.g., greater comfort with differences; Fuertes et al., 2000; lower intergroup anxiety; Britt et al., 1996). Colorblindness could be associated with less intergroup anxiety if people really are not paying attention to racial/ethnic group membership, but again it also does not allow for an open recognition or discussion of race and ethnicity, and also may lead to

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individuals feeling more nervous about trying to appear colorblind even when racial group memberships are noticed. Multiculturalism could be associated with less intergroup anxiety or greater comfort with diversity again because of its embracing of diversity and cultural differences. However, multiculturalism's focus on differences and association with stereotyping could make people somewhat uncomfortable in intergroup contexts.

As well, because polyculturalism should be associated with greater comfort and less anxiety around people from different racial and ethnic backgrounds, this ideology should also be related to academic confidence and greater sense of belonging for students at a racially/ethnically diverse university, as well as less drinking motivated by trying to cope with or reduce feelings of discomfort interacting with diverse others. And, following from the hypotheses about the potentially mixed positive and negative relationships that multiculturalism and colorblindness may have with intergroup anxiety, each of these ideologies theoretically could also be associated with academic and health variables in either direction.

Following from the previous hypothesis, I also hypothesized that there would be statistical evidence for intergroup anxiety being a mediator of the relationships that polyculturalism has with academic confidence, sense of belonging, and drinking motivated by intergroup discomfort (assuming that as hypothesized polyculturalism predicts each of these outcomes). At the same time, following from the proposed theoretical model, I hypothesize that it is also possible there are bi-directional effects among social, academic, and health outcomes. Therefore, academic and health outcomes may also mediate the relationship that polyculturalism has with intergroup anxiety, and

academic and health outcomes may each mediate the relationship that polyculturalism has with the other.

Further, I predicted that while members of marginalized racial and ethnic groups (e.g., Latino and Black Americans) would show a stronger preference for multiculturalism over colorblindness than White Americans would (e.g., Ryan et al., 2007), members of all racial and ethnic groups would endorse polyculturalism to a relatively equal extent. This is because students in a diverse setting like Stony Brook University will likely be familiar and comfortable with this ideology, and in focusing on the connections between different racial and ethnic groups, polyculturalism should be equally appealing to people of different backgrounds. I also hypothesized that polyculturalism would significantly predict positive intergroup attitudes and academic self-efficacy for all racial and ethnic groups (testable specifically with the large sample in Study 1), as it should have positive implications for people of all backgrounds in diverse settings. The associations that colorblindness and multiculturalism have with outcome variables, however, might vary by racial/ethnic group (e.g., Ryan et al., 2007). For example, it is possible that multiculturalism would be associated with greater academic self-efficacy in marginalized racial and ethnic groups because of its validation of their backgrounds, cultures, and experiences, but that colorblindness would be associated with greater academic self-efficacy in White Americans because it allows them to avoid worrying about issues of difference or the privileges they may have had in their lives. However, as already discussed, the inconsistent findings in past research make it difficult to make clear hypotheses about how these associations will differ, but this is a

particularly important issue to explore in Study 1, as it includes a large sample of diverse college students.

Additionally, I did not expect to find any gender differences because intergroup ideologies focus on racial and ethnic groups, and therefore should be similarly endorsed regardless of gender, and past work on intergroup ideologies has not found or focused on gender differences. However, I did test for gender differences in endorsement of the ideologies as well, and also in Study 1 with the largest sample, I tested whether the relationships between polyculturalism and the outcome variables were different for men versus women.

I. Pilot Study

The pilot study involved the creation and pilot testing of three scales, designed to measure endorsement of each of the three intergroup ideologies because at the time no comparable measures of the three existed. I created scale items to fit with accepted conceptualizations of colorblindness (the combined "uniqueness" and "commonalities" forms) and multiculturalism (in its "important differences" form) and the original conceptualization of polyculturalism put forth by Kelley (1999) and Prashad (2003), and also so that the items would clearly distinguish each of these three ideologies from each other. All items were designed to be free of valence to avoid this confound (neutrally worded, not positive or negative). The items were designed to be of similar length for each of the three ideologies. The goal of the pilot study was to create valid and internally reliable measures of endorsement of each of the three intergroup ideologies and provide a first test of how much college students of various backgrounds endorse the three ideologies and their relative relationships with some established measures of important, relevant intergroup attitudes (SDO and universal-diverse orientation), which is the main domain in which work on correlates of individuals' endorsement of intergroup ideologies has been focused.

I hypothesized that the items created to measure endorsement of each of the three ideologies would fall into three distinct factors. I hypothesized that participants would generally endorse both polyculturalism and multiculturalism more than they would endorse colorblindness, as students in a diverse educational setting such as Stony Brook University, many of whom grew up attending diverse schools in New York, would have been exposed to and more strongly endorse these two ideologies than colorblindness.

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Additionally, as already described, I hypothesized that polyculturalism would be consistently associated with positive outcomes for intergroup attitudes (both SDO and universal-diverse orientation), which in the theoretical model depicted in Figure 1 is demonstrated by the link between polyculturalism and social outcomes. On the other hand, I hypothesized that multiculturalism and colorblindness would not have consistent positive associations, following from past work.

<div align="center">Method</div>

Participants

A total of 91 (74 women, and 17 men) Psychology students from diverse racial and ethnic backgrounds (40 White American, 21 Asian American, 15 Latino American, 7 Black American, and 8 Other or Mixed) at Stony Brook University completed a paper and pencil survey in exchange for course credit. Because of the culturally-bound relevance of these ideological approaches, and following inclusion criteria used by past research on these approaches (e.g., Richeson & Nussbaum, 2004), I planned to use only data from participants who had lived in the United States for 6 or more years, and all participants met this inclusion criterion. However, data from one participant (an Asian American male) was excluded because of a substantial amount of missing data, leaving a total of 90 participants. Mean age of the sample was 21.19 (*SD* = 1.85), and all but 17 of the participants were born in the United States.

Measures

Participants completed measures in the order displayed below. All items for all measures used in all of the studies can be found in Appendix 1.

Polyculturalism. All participants completed a 5-item measure of polyculturalism in a neutral form (1 = Strongly Disagree, 7 = Strongly Agree). The polyculturalism scale was designed to measure a neutral form of polyculturalism, focusing generally on intergroup interactions, influences, and connections with no mention of positive or negative interactions between groups, in order to make it free of confounding valence issues. A sample item is "Different racial, ethnic, and cultural groups influence each other."

Multiculturalism. All participants completed a 5-item measure of multiculturalism in a form focused on recognizing important differences between racial and ethnic groups (1 = Strongly Disagree, 7 = Strongly Agree). The multiculturalism measure was also designed to be free of valence issues, and to focus on the popular form of recognizing important differences between racial and ethnic groups. A sample item is "There are differences between racial and ethnic groups, which are important to recognize."

Colorblindness. All participants completed a 5-item measure of colorblindness in a combined form focused on the unique qualities of individuals as well as commonalities across groups (1 = Strongly Disagree, 7 = Strongly Agree). The colorblindness measure was also designed to be free of valence issues, and to focus on the two most popular forms, combining a focus on the unique individuality of people and commonalities across groups of people. A sample item is "At our core, all human beings are really all the same, so racial and ethnic categories do not matter."

Social dominance orientation. Participants completed the 16-item SDO scale (Pratto et al., 1994), measuring support for inequality between groups, or the belief that some groups are superior to others. Participants rated their reactions to each statement on

a scale from -3 (Very Negative) to 3 (Very Positive). A sample item is "Some groups of people are simply inferior to other groups." A composite score consisting of the average of all the items (half reverse-scored) was created. The scale demonstrated very good internal reliability (Cronbach's Alpha = .92).

Universal-diverse orientation. Participants completed the 15-item Miville-Guzman Universality-Diversity Scale (MGUDS; Fuertes et al., 2000) as an established measure of universal-diverse orientation, which is defined as "an attitude of awareness and acceptance of both the similarities and differences among people" (Miville et al., 1999, p. 291). The MGUDS consists of three subscales (Diversity of Contact, Relativistic Appreciation, and Comfort with Differences), with each including five of the items from the full scale. All items were rated on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree). Samples items are "I am interested in learning about the many cultures that have existed in this world" for Diversity of Contact, "In getting to know someone, I would like to know both how he/she differs from me and is similar to me" for Relativistic Appreciation, and "I would only be at ease with people of my race" for Comfort with Differences. A composite score for each subscale was created by calculating the mean of the responses to the appropriate items (five items reverse-scored). Each of the subscales demonstrated good internal reliability (Cronbach's Alphas = .86 for Diversity of Contact, .71 for Relativistic Appreciation, and .69 for Comfort with Differences).

Demographics. Participants also answered a set of demographic questions, including their age, gender, race/ethnicity, whether they were born in the United States, and the number years living in the country.

Results

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First, I conducted an exploratory factor analysis (principal components) with the 15 items designed to measure agreement with each of the three intergroup ideologies. By examining the eigenvalues and a scree plot, I determined that the three expected factors indeed emerged. Those three factors were then rotated using a varimax rotation. These analyses revealed that the first factor included the five items intended to measure endorsement of polyculturalism, the second factor included the five items intended to measure endorsement of colorblindness, and the third factor included the five items intended to measure endorsement of multiculturalism. All item loadings were .55 or greater on their intended factor, and low for the other two factors (see results in Table 1). Based on these analyses, I then created three scales to measure endorsement of each of the three ideologies, by calculating average scores of the five items for each ideology. Each of the three resulting scales demonstrated good internal reliability (Cronbach's Alphas = .89 for polyculturalism, .75 for multiculturalism, and .83 for colorblindness).

Next, I computed means, standard deviations, and bivariate correlations for all study measures (i.e., the three ideologies, SDO, and MGUDS), and these can be seen in Table 2. In this sample, polyculturalism was endorsed to the greatest extent out of all three of the ideologies, with multiculturalism also generally endorsed highly, but the average response to colorblindness being slightly to the "Disagree" side of the scale. As well, participants tended to score low on SDO, indicating disagreement with social inequality on average, and they tended to score high on the three subscales of MGUDS, indicating on average high levels of interest in, appreciation for, and comfort with diversity. Among the three approaches, polyculturalism and multiculturalism were significantly positively correlated, but there were no other significant correlations among

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them. As expected, polyculturalism was significantly correlated with each of the outcome measures in predicted the patterns, namely lower SDO, and greater interest in, appreciation for, and comfort with diversity. Multiculturalism was only significantly positively correlated with greater appreciation for diversity, and colorblindness was not significantly correlated with any of the outcome measures.

Regression Analyses

Then, I conducted a series of four regression analyses, with the three ideologies as simultaneous predictors and SDO and the three subscales of the MGUDS as the four outcomes (see results in Table 3). In predicting SDO, both polyculturalism and multiculturalism were significant predictors, but polyculturalism predicted lower scores on SDO, and multiculturalism predicted higher scores on SDO. Colorblindness was not significantly related, but demonstrated a weak trend toward a negative relationship with SDO. In predicting interest in diversity, only polyculturalism was a significant predictor, and was associated with greater interest in diversity. Multiculturalism demonstrated a very weak trend toward a negative relationship, and colorblindness demonstrated a very weak trend toward a positive relationship. In predicting appreciation for diversity, polyculturalism was again the only significant predictor and was associated with greater appreciation for diversity and difference. Multiculturalism and colorblindness demonstrated weak trends toward positive relationships. Similarly, in predicting comfort with differences, polyculturalism was again the only significant predictor, and was associated with greater comfort in dealing with people from different backgrounds. Multiculturalism and colorblindness demonstrated trends toward negative relationships.

Analyses Testing Gender and Race/Ethnicity Differences

Next, I used a series of t-tests to examine gender differences in endorsement of polyculturalism, multiculturalism, and colorblindness, and the results were nonsignificant (all *p*s >.60), as expected.

Finally, although there were very limited sample sizes for separate racial/ethnic groups, I conducted a preliminary test for racial/ethnic differences in endorsement of polyculturalism, multiculturalism, and colorblindness (i.e., comparing Asian, Black, Latino, and White Americans) using a multivariate analysis of variance (MANOVA). The MANOVA was nonsignificant (*p* = .17).

Discussion

Consistent with hypotheses, results from the pilot study suggest that the scales developed to measure endorsement of each of the three intergroup ideologies are reliable and represent three distinguishable factors. As well, the college student participants seem to generally endorse both polyculturalism and multiculturalism highly, but lean toward disagreeing with colorblindness. The relative endorsement of multiculturalism and colorblindness is consistent with past work and the current emphasis of multiculturalism in many educational settings, including Stony Brook University. Because the ideas represented in the ideologies are socially salient and generally socially acceptable, it does seem that people can simultaneously endorse these three ideologies, and there were not any negative associations between endorsement of one of the ideologies and endorsement of any other. Multiculturalism and polyculturalism emerged as distinguishable factors in the factor analysis, but were also positively correlated with each other. This finding may reflect that because each of these two ideologies recognizes and directly addresses the importance of race, ethnicity, and culture, people who endorse one will tend to endorse

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the other; at the same time, they are distinguishable because one focuses on the differences between cultures and the other focuses on the connections among them.

Also consistent with hypotheses, endorsement of polyculturalism was consistently associated with positive outcomes, namely less support for social inequality, and greater interest in, appreciation for, and comfort with diversity and differences, which is evidence of the connection between polyculturalism and social outcomes in the theoretical model (see Figure 1). On the other hand, endorsement of multiculturalism and colorblindness did not show the same consistently positive results. While the emphasis on learning about different cultures may help people to appreciate different groups' backgrounds and contributions to society, this does not guarantee that people will then be interested in getting to know people from other backgrounds and feel comfortable in doing so. By examining bivariate correlations, it seemed that multiculturalism was associated with greater appreciation for diversity and difference, but when the three ideologies were included in a simultaneous regression, multiculturalism no longer significantly predicted this outcome, as it seems that polyculturalism was a stronger predictor of this greater appreciation for diversity. As well, the regression analyses revealed multiculturalism as being associated with greater support for inequality, although the bivariate correlation between these two variables had not been significant. Colorblindness did not emerge as a significant predictor of any outcomes for any of these analyses.

The results of this pilot study support polyculturalism's relationship with more positive intergroup attitudes and involved the successful development of scales to measure endorsement of polyculturalism, multiculturalism, and colorblindness.

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Nonetheless, there are limitations to this study that prevent such strong conclusions from being drawn. First, the sample size was limited, which allows for the possibility that some of the effects of multiculturalism and colorblindness were not significant because of a lack of power, not because of there not being any effect. Because of the small sample sizes, the analyses that compared means by gender and race/ethnicity were not very strong. Additionally, this was only the first study to use the scales developed to measure the three ideologies and the first study to compare polyculturalism to the other two ideologies. The findings need to be replicated and extended before drawing strong conclusions about polyculturalism. As well, very few outcome measures were used, as this was the first test of polyculturalism and the first piloting of the three scales, so although the findings seem strong for polyculturalism, its associations with more outcome measures relevant to intergroup relations still need to be tested, including other social outcomes, as well as academic and health outcomes identified in the proposed theoretical model.

II. Study 1

The main goal of Study 1 was to collect survey, correlational data from a large enough number of diverse college students to both replicate and extend the findings from the pilot study, specifically by being able to make comparisons by race/ethnicity of participants. Consistent with the pilot study, Study 1 aimed to further examine the created measures of endorsement of colorblindness, multiculturalism, and polyculturalism. It provides another test of the relative relationships that each of the three ideologies has with social outcomes, namely SDO and the three subscales of the MGUDS, as these are relevant and important established intergroup measures that will help to further illuminate the potential strengths and weaknesses of these ideologies. Study 1 also provides the first test of the ideologies' relationships with an established self-report measure of intergroup anxiety (another social outcome), which further tests the proposed connection between polyculturalism and social outcomes.

As well, this study provides the first test of the ideologies' relationships with academic self-efficacy (an academic outcome), examining the proposed connection between polyculturalism and academic outcomes. As already discussed, many people do experience stress and anxiety when involved in intergroup interactions, which can lead to decreased desire for intergroup contact, greater discomfort in diverse settings, and even cognitive impairment following intergroup interactions (e.g., Richeson & Shelton, 2003). As well, students in diverse educational settings who feel more comfortable being in contact and interacting with people from different racial and ethnic backgrounds may feel more confident in their ability to perform well while in classes with students and professors from diverse racial and ethnic backgrounds, which can have important

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consequences for their academic engagement and achievement. Thus, the inclusion of

these two measures contributes greatly to our understanding of the varied important

consequences of these three ideologies, and allows a further test of my theoretical model

highlighting the connections among endorsement of polyculturalism, social, and

academic outcomes. Study 1, because of its larger and more diverse sample, also

contributes to tests of the differences in endorsement of each of the three ideologies by

race/ethnicity, and tests of whether the consequences for each of the ideologies vary by

race/ethnicity.

And as already elaborated, I hypothesized that polyculturalism would demonstrate

the most positive associations with the study measures, with endorsement of

polyculturalism significantly relating to lower scores on SDO, higher scores on all three

subscales of the MGUDS (replicating the findings from the pilot study), lower scores on

intergroup anxiety, and higherscores on academic self-efficacy, over and above the

contributions of endorsement of colorblindness and multiculturalism. I hypothesized that

endorsement of colorblindness and multiculturalism, on the other hand, would have

mixed results (consistent with past research and the pilot study). I also hypothesized that

polyculturalism's associations with the outcome variables would be consistently positive

across different racial/ethnic and gender groups, although multiculturalism's and

colorblindness' relationships might vary by race/ethnicity, consistent with past research

(e.g., Ryan et al., 2007). Further, I hypothesized that intergroup anxiety would be a

significant mediator of the relationship between polyculturalism and academic self-

efficacy. In addition, I tested whether academic self-efficacy might also be a mediator of

the relationship between polyculturalism and intergroup anxiety, following from the proposed theoretical model.

<div align="center">Method</div>

Participants

A total of 445 Psychology students at Stony Brook University completed all of the measures for this study in one survey session (three ideologies, SDO, MGUDS, intergroup anxiety, academic self-efficacy, and demographics). As well, in order to increase the numbers of participants from the smaller percentage racial/ethnic groups, I collected data from an additional 249 Psychology students for a subset of the measures (i.e., three ideologies, SDO, MGUDS, and demographics), as well as an additional 239 Psychology students for a different subset of the measures (i.e., three ideologies, intergroup anxiety, academic self-efficacy, and demographics). Thus there were a total of 933 participants in this study. For the analyses with SDO and MGUDS as the outcome variables, I report results with 694 students (445 women, 249 men; 253 White American, 217 Asian American, 69 Black American, 68 Latino American, and 87 Other or Mixed). And, for the analyses with intergroup anxiety and academic self-efficacy, I report results with 684 students (387 women, 297 men; 253 White American, 234 Asian American, 64 Latino American, 58 Black American, and 75 Other or Mixed). All participants completed the surveys in exchange for course credit. Again, because of the culturally-bound relevance of these ideological approaches, only data from participants who have lived in the United States for 6 or more years were used for analyses. Mean age of the full sample was 19.54 ($SD = 2.78$), and 764 of the 933 participants were born in the United States.

Measures

All participants (933) first completed the same three 5-item ideology measures that were established in the pilot study to measure endorsement of polyculturalism, multiculturalism, and colorblindness. As well, participants completed the same SDO and MGUDS measures as used in the pilot study (only for the 445 students with the full survey, and the additional first subset of 217 students, total 694 students). The measure of SDO again demonstrated high internal reliability (Cronbach's Alpha = .92), as did all the subscales of MGUDS (Cronbach's Alphas = .84 for Diversity of Contact, .78 for Relativistic Appreciation, and .79 for Comfort with Differences). All participants also completed the same set of demographic questions as used in the pilot study.

Intergroup anxiety. Participants completed an established 11-item measure of intergroup anxiety (Britt et al., 1996), which was slightly modified to assess anxiety about interacting with "people of different racial/ethnic backgrounds" instead of one particular racial/ethnic group (only for the 445 students with the full survey, and the additional second subset of 239 students, total 684 students). Participants were asked to rate each item on a scale of 1 (Strongly Disagree) to 5 (Strongly Agree). A sample item is "I would feel nervous if I had to sit alone in a room with a person from a different racial/ethnic background and start a conversation." A composite score was created by averaging all of the items (3 reverse-scored). The scale demonstrated good internal reliability (Cronbach's Alpha = .82).

Academic self-efficacy. Participants completed an established 5-item measure of academic self-efficacy (Elias & Loomis, 2000), to assess how confident they feel in their ability to succeed in their classes (only for the 445 students with the full survey, and the

additional second subset of 239 students, total 684 students). All items were rated on a scale of 1 (Not At All True) to 5 (Very True). A sample item is "I can do even the hardest work in my classes if I try." A composite score was created by averaging all of the items. The scale demonstrated good internal reliability (Cronbach's Alpha = .89).

Procedure

Participants completed the surveys either at a computer with Internet access during the Psychology department's Mass Testing session, or in a Psychology classroom with paper and pencil. Because the majority of participants completed the surveys at a computer with Internet access, this may have helped students to feel more privacy and therefore reduce some of the social desirability concerns associated with paper and pencil surveys in classrooms, as students in a classroom environment may be concerned about other students seeing their responses.

Results

First, with all of the survey data (from all three groups of participants, total 933 participants), I conducted a confirmatory factor analysis (principal components) with a varimax rotation (based on the results of the exploratory factor analysis in the pilot study, choosing 3 factors) on the 15 items used to measure the three ideologies. Results indicated that the items indeed loaded onto the three expected factors. All item loadings were .70 or greater on their intended factor, and very low for the other two factors (see Table 1 for results). Based on these analyses, I then created three scales to measure endorsement of each of the three ideologies, by calculating average scores of the five items for each ideology. Reliability analyses for each of the three resulting scales

demonstrated good internal reliability (Cronbach's Alphas = .89 for polyculturalism, .81 for multiculturalism, and .86 for colorblindness).

Bivariate correlations, means, and standard deviations for all study measures can be found in Table 4. Consistent with findings from the pilot study, participants strongly agreed with polyculturalism and multiculturalism but disagreed slightly with colorblindness. As with the pilot study, participants on average scored low on SDO and high on all subscales of MGUDS, indicating socially tolerant intergroup attitudes. Consistent with this pattern, participants also on average scored low on intergroup anxiety and high on academic self-efficacy. Polyculturalism and multiculturalism were significantly positively correlated, illustrating their shared emphasis on acknowledging groups, and multiculturalism and colorblindness were significantly negatively correlated (although weakly). Polyculturalism was also significantly negative correlated with colorblindness (although very weakly). Polyculturalism was significantly correlated with every outcome measure in the predicted directions, indicating associations with positive social and academic outcomes. Multiculturalism was significantly correlated with all outcomes as well, also indicating associations with positive social and academic outcomes. Colorblindness was only significantly correlated with less appreciation for diversity (although weakly).

Regression Analyses

Next, I ran a series of regression analyses, which included endorsement of polyculturalism, multiculturalism, and colorblindness as three simultaneous predictors, with each of the other study measures as outcomes (with 694 participants for SDO and the three subscales of the MGUDS; and with 684 participants for intergroup anxiety and

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academic self-efficacy). Results are displayed in Table 5. Polyculturalism was significantly related to all outcomes (i.e., lower SDO, greater interest in, appreciation for, and comfort with diversity, less intergroup anxiety, and greater academic self-efficacy) even when controlling for the contributions of multiculturalism and colorblindness, indicating a unique and consistent association with more positive social and academic outcomes, building evidence for these links in the proposed theoretical model. Consistent with past work showing multiculturalism's positive intergroup associations, multiculturalism was significantly associated with greater appreciation for diversity, but no other outcomes. Also, consistent with past work showing colorblindness' associations with some positive intergroup outcomes, colorblindness was significantly related to lower SDO, but no other outcomes.

Testing Mediating Variables in Theoretical Model

I then tested the hypothesis that intergroup anxiety (identified as a social outcome) mediates the relationship between polyculturalism and academic self-efficacy (an academic outcome) with the 684 participants that completed all of these measures (see results in Figure 2). Because the regression analyses did not demonstrate significant relationships of multiculturalism or colorblindness with intergroup anxiety or academic self-efficacy, I did not test possible mediation for these other ideologies. The above analyses already demonstrated that polyculturalism significantly predicts greater academic self-efficacy, satisfying Step 1 of mediation testing (Baron & Kenny, 1986), and that polyculturalism significantly predicts less intergroup anxiety satisfying Step 2 of mediation testing. Next, I ran a regression analysis with polyculturalism and intergroup anxiety as simultaneous predictors of academic self-efficacy. In this analysis, intergroup

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anxiety was a significant predictor of lower academic self-efficacy, satisfying Step 3 of mediation testing. Polyculturalism remained a significant predictor of academic self-efficacy as well. However, a Sobel test revealed a significant mediated effect (Sobel Statistic = 4.45, *SE* = 0.01, *p* < .001), indicating that intergroup anxiety partially mediated the relationship between polyculturalism and academic self-efficacy, supporting hypotheses from the proposed theoretical model.

Because of the prediction that there could also be a dynamic and bi-directional connection among these variables, I also tested whether academic self-efficacy possibly mediated the relationship between polyculturalism and intergroup anxiety (see Results in Figure 3). Steps 1 and 2 of mediation testing are already supported above, so I ran a regression analysis with polyculturalism and academic self-efficacy as simultaneous predictors of intergroup anxiety. In this analysis, academic self-efficacy was a significant predictor of lower intergroup anxiety, satisfying Step 3 of mediation testing. Polyculturalism remained a significant predictor of intergroup anxiety as well. However, similar to above, a Sobel test revealed a significant mediated effect (Sobel Statistic = -4.79, *SE* = .01, *p* < .001), indicating that academic self-efficacy partially mediates the relationship between polyculturalism and intergroup anxiety, supporting the bi-directional nature of these relationships proposed by the theoretical model.

Also, because theoretically the comfort with differences subscale of the MGUDS is very similar (in opposite direction) to the measure of intergroup anxiety, and because they were strongly correlated with each other, I also tested whether this measure of comfort with differences was a significant mediator of the relationship between polyculturalism and academic self-efficacy with the 445 participants that completed all of

these measures (see results in Figure 4). Again, the above regression analyses demonstrated that polyculturalism significant predicts greater academic self-efficacy and greater comfort with differences, satisfying Steps 1 and 2 of testing mediation. Then, I ran a regression analyses with polyculturalism and comfort with differences as simultaneous predictors of academic self-efficacy. Similar to the analysis with intergroup anxiety, in this analysis comfort with differences was a significant predictor of greater academic self-efficacy, satisfying Sept 3 of mediation testing, and polyculturalism remained a significant predictor of academic self-efficacy as well. However, a Sobel test revealed a significant mediated effect (Sobel Statistic = 3.04, $SE = 0.01$, $p < .01$), indicating that comfort with differences partially mediated the relationship between polyculturalism and academic self-efficacy.

Finally, I also tested whether academic self-efficacy possibly mediated the relationship between polyculturalism and comfort with diversity (see results in Figure 5). Steps 1 and 2 of mediation testing are already supported above, so I ran a regression analysis with polyculturalism and academic self-efficacy as simultaneous predictors of comfort with diversity. In this analysis, academic self-efficacy was a significant predictor of greater comfort with diversity, satisfying Step 3 of mediation testing. Polyculturalism remained a significant predictor of greater comfort with diversity as well. However, similar to above, a Sobel test revealed a significant mediated effect (Sobel Statistic = 2.85, $SE = .01$, $p < .01$), indicating that academic self-efficacy partially mediates the relationship between polyculturalism and comfort with differences.

Auxiliary Analyses Controlling for other Potentially Confounding Variables

Although SDO was used as an outcome measure, it is also an established

individual difference construct that has strong and consistent relationships with negative

intergroup attitudes (e.g., Pratto et al., 1994). Thus, with the group of 694 participants, I

also conducted regression analyses for the three subscales of MGUDS with the

contribution of SDO controlled for by being entered in Step 1, and polyculturalism,

multiculturalism, and colorblindness as simultaneous predictors in Step 2. Controlling for

SDO did not change the results of any of the regressions for polyculturalism, indicating

that polyculturalism was significantly associated with greater interest in, appreciation for,

and comfort with diversity over and above the contributions of SDO.

As well, only the subset of 239 students that completed measures of the three

ideologies, intergroup anxiety, and academic self-efficacy, also were asked to report their

current grade point average at Stony Brook University. With this set of participants, I

conducted two more regression analyses for intergroup anxiety and academic self-

efficacy as the outcome variables, with the contribution of grade point average being

controlled for in Step 1, and polyculturalism, multiculturalism, and colorblindness as

simultaneous predictors in Step 2. Controlling for grade point average did not change the

results of either of these analyses, and polyculturalism remained the only significant

predictor of lower intergroup anxiety and greater academic self-efficacy, supporting the

hypothesized connection between polyculturalism and social and academic outcomes,

over and above the contributions of students' actual academic achievement.

Analyses Testing Gender Differences

Next, I used t-tests to examine gender differences in endorsement of

polyculturalism, multiculturalism, and colorblindness, using the data from all 933

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participants. There were no significant gender differences in endorsement of any of the three ideologies (all ps > .12), consistent with past work and findings from the pilot study.

I also ran separate regression analyses for men and women, with polyculturalism, multiculturalism, and colorblindness as simultaneous predictors for all of the outcome variables. Colorblindness was only significantly related to lower SDO for men ($r = -.20$, $p = .001$), but not for women ($r = -.04$, $p = .37$). Multiculturalism was a marginally significant predictor of greater appreciation of diversity for men ($r = .12$, $p = .06$), and was a significant predictor of greater appreciation of diversity for women ($r = .11$, $p = .03$). Multiculturalism also emerged as a significant predictor of greater academic self-efficacy for men ($r = .14$, $p = .03$), but not women ($r = .03$, $p = .49$). All other relationships for colorblindness and multiculturalism were nonsignificant, as they were in the regression analyses with men and women together. Polyculturalism remained a significant predictor for all outcome variables (lower SDO, higher scores on all three subscales of MGUDS, less intergroup anxiety, and greater academic self-efficacy) for both men and women, as predicted.

Analyses Testing Race/Ethnicity Differences

I also tested for racial/ethnic differences in endorsement of the three ideologies for all racial/ethnic groups for which there was a sufficient amount of data (i.e., Asian, Black, Latino, and White Americans) using a MANOVA. The MANOVA was significant overall ($p = .001$). And, there was a significant difference by race/ethnicity in endorsement of multiculturalism ($p = .001$) as well as polyculturalism ($p = .04$). In this sample, Asian and Black Americans endorsed multiculturalism ($M = 5.59$, $SD = 0.89$ for

Asian Americans, $M = 5.53$, $SD = 1.06$ for Black Americans) to a greater extent than did Latino and White Americans ($M = 5.33$, $SD = 0.86$ for Latino Americans, $M = 5.30$, $SD = 0.93$ for White Americans). As well, Black Americans endorsed polyculturalism to the greatest extent ($M = 6.00$, $SD = 0.91$), followed by Latino Americans ($M = 5.83$, $SD = 0.92$), White Americans ($M = 5.77$, $SD = 0.86$), and Asian Americans ($M = 5.67$, $SD = 0.90$).

Because of the fairly large samples of different racial/ethnic groups in this study, I was then able to conduct the regression analyses separately for the four racial/ethnic groups to test whether within groups, the relationships between the ideologies and the outcome variables were the same as when testing everyone together. Colorblindness was significantly associated with lower SDO for only White Americans, and also marginally significantly associated with less comfort with differences for White Americans ($p = .07$). Multiculturalism was marginally significantly associated with greater interest in diversity for White Americans ($p = .05$), significantly greater appreciation for diversity among Asian and Black Americans, and significantly associated with greater intergroup anxiety among Black Americans ($p < .05$). Polyculturalism was significantly associated with lower SDO, greater interest in, appreciation for, and comfort with diversity and differences, as well as less intergroup anxiety, and greater academic self-efficacy for all four racial/ethnic groups, consistent with the hypothesis that polyculturalism's associations would be positive for all racial/ethnic groups.

Discussion

Findings from this study give some support for the proposed theoretical model of polyculturalism's relationships with social, academic, and health outcomes.

Polyculturalism was consistently associated with more positive intergroup attitudes, less intergroup anxiety, and greater academic self-efficacy, and was also endorsed highly across all racial and ethnic groups, and for both women and men. Consistent with past work, multiculturalism and colorblindness also demonstrated some associations with positive outcomes, but not consistently across measures or racial/ethnic groups. Analyses also supported the hypothesis that intergroup anxiety or comfort with differences partially mediated the relationship between endorsement of polyculturalism and greater academic self-efficacy. And, there was also evidence for the reverse direction of mediation, namely that greater academic self-efficacy partially mediated the relationship that polyculturalism had with intergroup anxiety or comfort with differences. Together, these findings suggest that there may be a dynamic relationship among endorsement of polyculturalism, social, and academic outcomes. These findings replicate and extend the findings of the pilot study, and provide the first evidence that polyculturalism potentially has not only positive social but also positive academic implications for students in diverse universities, and possibly for others in all types of diverse environments.

It seems that endorsement of polyculturalism not only has positive associations with intergroup attitudes, and therefore may be associated with improved intergroup relations, but that it also may be associated with being more comfortable and less anxious when interacting with members of different racial and ethnic groups, which in turn may then allow students to be more confident academically in educational settings in which they are interacting with people from diverse backgrounds. And, as students are more confident academically, they may also become even more comfortable and less anxious in diverse settings. These results suggest that polyculturalism may be a crucial ideology

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to examine in college students attending diverse universities for understanding

experiences of stress, anxiety, and academic confidence. Indeed, there may be many other

social, academic, and health outcomes that could be correlates of endorsement of

polyculturalism that deserve further attention, which was one of the main purposes of

Study 2.

III. Study 2

Following from Study 1, I wanted to further test the proposed theoretical model and examine the relationship between polyculturalism and intergroup anxiety, as well as sense of belonging at one's university, academic confidence, and drinking motivated by discomfort in intergroup social settings. Study 1 provided some of the first evidence that an intergroup ideology like polyculturalism can have implications not just for intergroup attitudes, but also for intergroup anxiety and academic-related variables, and this study aimed to extend those findings and further explore the reach of the implications of polyculturalism for social, academic, and health variables among people in diverse settings. Because in the regression analyses in Study 1, multiculturalism and colorblindness were not significant predictors of intergroup anxiety or academic self-efficacy, I did not include them in this study, but aimed to further focus on the consequences of endorsement of polyculturalism.

As already elaborated, and based on the findings from Study 1 and the proposed theoretical model, I hypothesized that polyculturalism would be associated with less intergroup anxiety, greater sense of belonging at Stony Brook University, greater academic confidence, and less drinking motivated by discomfort in intergroup social settings. I also expected that these relationships would be independent of more general social anxiety, which is likely related to intergroup anxiety, but should not account for the relationship between polyculturalism and intergroup anxiety or any of the other outcome variables. Further, I hypothesized that intergroup anxiety would be a mediator of the relationships that polyculturalism has with sense of belonging, academic confidence, and drinking motivated by discomfort in intergroup settings, but that each of those academic

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and health variables could also potentially be mediators of the relationship that polyculturalism has with intergroup anxiety. I also hypothesized that sense of belonging might mediate the relationship between polyculturalism and drinking motivated by intergroup discomfort, and that drinking motivated by intergroup discomfort might mediate the relationship between polyculturalism and academic confidence.

<div align="center">Method</div>

Participants

A total of 159 Psychology students at Stony Brook University (104 women, 55 men; 59 White American, 49 Asian American, 21 Latino American, 8 Black American, and 22 Other or Mixed) completed all of the measures for this study in one survey session (i.e., polyculturalism, intergroup anxiety, sense of belonging, academic confidence, drinking motivated by intergroup discomfort, general social anxiety, and demographics). All participants completed the surveys in exchange for course credit. Again, because of the culturally-bound relevance of these ideological approaches, only data from participants who have lived in the United States for 6 or more years were used for analyses. Mean age of the sample was 19.99 ($SD = 1.83$), and 129 of the 159 participants were born in the United States.

Measures

Participants completed the same 5-item measure of polyculturalism as used in the pilot study and Study 1. The measure of polyculturalism again demonstrated good internal reliability (Cronbach's Alpha = .84). Participants also completed the same 11-item measure of intergroup anxiety from Study 1, as well as the same demographic

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questions from the pilot study and Study 1. The intergroup anxiety measure again demonstrated good internal reliability (Cronbach's Alpha = .83).

Sense of belonging. Participants completed a single item to measure their sense of belonging at Stony Brook University, based on past work with college students (Mendoza-Denton et al., 2002). The item was rated on a scale of 1 (Strongly Disagree) to 7 (Strongly Agree), and it read, "I fit in well at Stony Brook University."

Academic Confidence. Participants also completed a single item to measure their academic confidence at Stony Brook University, also based on past work with college students (Chemers, Hu, & Garcia, 2001). The item was rated on a scale of 1 (Strongly Disagree) to 7 (Strongly Agree), and it read, "I do well in my classes at Stony Brook University."

Drinking motivated by intergroup discomfort. Participants completed two items created for use in this study to measure the extent to which they drink alcohol in order to decrease discomfort or anxiety felt when interacting with people from different racial/ethnic backgrounds. The items were rated on a scale of 1 (Strongly Disagree) to 7 (Strongly Agree). For example, one item read, "I drink alcohol when I am in a social situation with people from racial/ethnic backgrounds other than my own because drinking helps me relax and feel comfortable." The bivariate correlation between the two items was .82, and therefore a composite score was created by averaging both of the items.

General social anxiety. Participants completed a shortened version (7-item) of an established measure of general social anxiety (Leary, 1983), to be a control variable in all analyses. All items were rated on a scale of 1 (Not At All True) to 5 (Completely True). An example item is "I often feel nervous even in casual get-togethers." A composite

score was created by averaging all of the items (2 reverse-scored). The scale demonstrated good internal reliability (Cronbach's Alpha = .85).

Procedure

Participants completed the surveys either at a computer with Internet access during the Psychology department's Mass Testing session, or in a Psychology classroom with paper and pencil. Again, as the majority of students completed the surveys at a computer with Internet access, this may have increased feelings of privacy and reduced social desirability concerns.

Results

Bivariate correlations, means, and standard deviations for all study measures can be found in Table 6. Consistent with findings from the pilot study and Study 1, participants strongly agreed with polyculturalism. As well, participants on average scored low on intergroup anxiety, high on academic confidence and sense of belonging, and low on drinking alcohol motivated by intergroup discomfort. As predicted, polyculturalism was significantly correlated with lower intergroup anxiety, greater sense of belonging, greater academic confidence, and less drinking motivated by intergroup discomfort.

Regression Analyses

Next, I ran a series of regression analyses, which included general social anxiety as a control variable in Step 1, and polyculturalism as a predictor in Step 2, for all four outcome variables (i.e., intergroup anxiety, sense of belonging, academic confidence, and drinking motivated by intergroup discomfort). Results are displayed in Table 7. Polyculturalism was significantly related to all outcomes even when controlling for general social anxiety, indicating a unique and consistent association with more positive

social, academic, and health outcomes, giving further support to the proposed theoretical model.

Testing Mediating Variables in Theoretical Model

I then tested the hypothesis from the proposed theoretical model that intergroup anxiety mediates the relationships that polyculturalism has with sense of belonging, academic confidence, and drinking motivated by intergroup discomfort. The above analyses already demonstrated that polyculturalism significantly predicts each of these outcome variables, satisfying Step 1 of mediation testing for all three outcomes (Baron & Kenny, 1986), and that polyculturalism significantly predicts less intergroup anxiety satisfying Step 2 of mediation testing. Next, I ran three regression analyses with polyculturalism and intergroup anxiety as simultaneous predictors of sense of belonging, academic confidence, and drinking motivated by intergroup discomfort. In these analyses, intergroup anxiety was a significant predictor of sense of belonging and academic confidence, but was only a marginally significant predictor of drinking motivated by intergroup discomfort ($p = .06$), therefore satisfying Step 3 of mediation testing for sense of belonging and academic confidence, but failing at Step 3 for drinking motivated by intergroup discomfort. Polyculturalism became a nonsignificant predictor of sense of belonging, and a marginally significant predictor of academic confidence. And, Sobel tests revealed significant mediated effects for both sense of belonging and academic confidence (Sobel Statistic = 2.30, $SE = 0.06$, $p = .02$ for sense of belonging; Sobel Statistic = 2.47, $SE = 0.06$, $p = .01$ for academic confidence), indicating that intergroup anxiety did mediate the relationships that polyculturalism had with sense of belonging (see results in Figure 6) and academic confidence (see results in Figure 7),

although the mediation analysis had failed at Step 3 for drinking motivated by intergroup discomfort. These findings provide partial support for the proposed theoretical model and the mechanisms involved in polyculturalism's relationships with social, academic, and health outcomes.

Similar to Study 1, because of the prediction that there could also be a dynamic and bi-directional connection among the variables in the theoretical model, I also tested whether sense of belonging, academic confidence, and drinking motivated by intergroup discomfort possibly mediated the relationship between polyculturalism and intergroup anxiety in three sets of regressions. Steps 1 and 2 of mediation testing are already supported above for all of these relationships, so I ran three regression analyses, one with polyculturalism and sense of belonging as simultaneous predictors of intergroup anxiety, the second with polyculturalism and academic confidence as simultaneous predictors of intergroup anxiety, and the third with polyculturalism and drinking motivated by intergroup discomfort as simultaneous predictors of intergroup anxiety. In the first analysis, sense of belonging was a significant predictor of lower intergroup anxiety, satisfying Step 3 of mediation testing, but polyculturalism remained a significant predictor of intergroup anxiety. As well, the Sobel test just missed significance (Sobel Statistic = -1.81, SE = .02, p = .07). In the second analysis, academic confidence was a significant predictor of lower intergroup anxiety, satisfying Step 3 of mediation testing, but polyculturalism remained a significant predictor of intergroup anxiety. In this case for academic confidence, the Sobel test revealed a significant mediated relationship (Sobel Statistic = -2.27, SE = .03, p = .02), indicating that academic confidence significantly mediated the relationship between endorsement of polyculturalism and intergroup anxiety

(see results in Figure 8), consistent with findings in Study 1 and the hypothesized bi-directional nature of these relationships. In the third analysis, drinking motivated by intergroup discomfort was a marginally significant predictor of greater intergroup anxiety ($p = .06$), therefore failing Step 3 of mediation testing.

Next, I tested whether sense of belonging mediates the relationship between endorsement of polyculturalism and drinking motivated by intergroup discomfort. Steps 1 and 2 of mediation testing are already supported above, so I ran a regression analysis with polyculturalism and sense of belonging as simultaneous predictors of drinking motivated by intergroup discomfort. In this analysis, sense of belonging was not a significant predictor of drinking motivated by intergroup discomfort ($p = .26$), therefore failing Step 3 of mediation testing.

Last, I tested whether drinking motivated by intergroup discomfort mediates the relationship between polyculturalism and academic confidence. Steps 1 and 2 of mediation testing are already supported above, so I ran a regression analysis with polyculturalism and drinking motivated by intergroup discomfort as simultaneous predictors of academic confidence. Drinking motivated by intergroup discomfort was a significant predictor of lower academic confidence, satisfying Step 3 of mediation testing, but polyculturalism remained a significant predictor of greater academic confidence. As well, the Sobel test was not significant (Sobel Statistic = 1.57, *SE* = .04, *p* = .12).

Analyses Testing Gender and Race/Ethnicity Differences

Next, I used a t-test to examine gender differences in endorsement of polyculturalism, and as expected it was again nonsignificant ($p = .77$).

Finally, I tested for racial/ethnic differences in endorsement of polyculturalism (i.e., comparing Asian, Black, Latino, and White Americans) using an ANOVA, even though there were much more limited sample sizes for different racial/ethnic groups in this study. The ANOVA was nonsignificant ($p = .35$).

Because of the smaller sample size in this study and therefore limited power, I did not conduct separate regression analyses for men versus women or for different racial/ethnic groups.

Discussion

The results from this study replicate and extend those of the pilot study and Study 1, and give some more, although not complete, support for the proposed theoretical model of the dynamic relationships among polyculturalism, social, academic, and health outcomes. The results suggest that as expected, polyculturalism is indeed associated with several positive social, academic, and health outcomes. In this study, polyculturalism was significantly associated with lower intergroup anxiety, greater sense of belonging at Stony Brook University (a diverse university), greater academic confidence, and less drinking motivated by discomfort while in intergroup settings, even when controlling for the effects of individual differences in general social anxiety. Additionally, this study again supports the hypothesis that intergroup anxiety is an important mediator for the relationships that polyculturalism has with academic outcomes, in this study specifically sense of belonging at Stony Brook University and academic confidence. As well, consistent with Study 1, this study supports the hypothesis that academic confidence is also a mediator of the relationship between polyculturalism and intergroup anxiety,

noting the bi-directional nature of the relationship between the social and academic outcomes associated with endorsement of polyculturalism.

However, the mediation analyses failed for testing whether intergroup anxiety was a mediator of the relationship between polyculturalism and drinking motivated by intergroup discomfort, whether sense of belonging was a mediator of polyculturalism's relationship with drinking, and whether drinking was a mediator of polyculturalism's relationship with academic confidence. It may be that for the relatively small size of effects that polyculturalism demonstrates with many of these variables, and with a somewhat smaller sample in this study as compared with Study 2, that there was simply not enough power for the classic steps of testing mediation analyses. For example, although the mediation testing failed at Step 3 with intergroup anxiety being only a marginally significant predictor of drinking motivated by intergroup discomfort when entered as a simultaneous predictor with polyculturalism, the p value of .06 was very close to standard levels of significance. It is also possible that the relationships that polyculturalism and drinking motivated by intergroup discomfort could be more complicated, with for example, other mediating factors involved. There could also be some important moderators of these relationships that I was unable to test, such as racial/ethnic group, numbers of intergroup friendships, or amount of time spent hanging out with groups of people from different racial/ethnic groups. All of these possibilities could potentially be tested in future work.

Despite that some of the hypotheses about mediation were not statistically supported, the results of this study, along with the results of the pilot study and Study1, do provide some support for the hypothesized theoretical model, and suggest that

polyculturalism may have important and potentially far-reaching implications for social, academic, and health outcomes for students, and potentially other people who are going to school, working, or living in racially/ethnically diverse settings. Polyculturalism may serve as a buffer to some of the negative experiences that people have in intergroup settings, such as intergroup anxiety and stress, and therefore allow students to be more confident and comfortable academically in diverse educational settings, and also therefore may prevent them from turning to substances such as alcohol to relieve or cope with anxiety felt in diverse social settings.

IV. General Discussion

Intergroup relations are still in dire need of improvement in diverse societies such as the United States, as prejudice, discrimination, and negative or stressful intergroup interactions continue to have important negative social, political, academic, occupational, and health outcomes. These studies provided some of the first empirical tests of a newly studied intergroup ideology, polyculturalism, in the hope of furthering our understanding of what variables may contribute to improved intergroup relations and outcomes that are consequences of intergroup relations.

In this dissertation, I tested a hypothesized theoretical model (see Figure 1), and expected endorsement of polyculturalism to be related to social outcomes, including intergroup attitudes, as prior ideological work has shown, as well as to other important outcomes including academic and health outcomes. Across the studies, I found evidence supporting that polyculturalism is an ideology with positive associations with intergroup attitudes, social experiences in intergroup settings, and academic and health outcomes that are a consequence of those social experiences in intergroup settings. Specifically, polyculturalism was significantly associated with less support for social inequality, greater interest in, appreciation for, and comfort with diversity, less intergroup anxiety, greater academic self-efficacy, greater sense of belonging at one's university, and less alcohol drinking motivated by discomfort in intergroup settings. Polyculturalism accounted for a unique amount of variance in these outcome variables, even after controlling for the contributions of the two long-standing ideologies (colorblindness and multiculturalism in the pilot study and Study 1), as well as some other important potentially confounding variables (e.g., SDO and grade point average in Study 1, general

social anxiety in Study 2). As hypothesized, there was also evidence that intergroup anxiety was a significant mediator of the relationship between polyculturalism and both academic self-efficacy and sense of belonging at one's university (Studies 1 and 2), although the test of intergroup anxiety as a mediator failed for the relationship between polyculturalism and drinking motivated by intergroup discomfort. As well, there was evidence that academic self-efficacy was a significant mediator of the relationship between polyculturalism and intergroup anxiety, indicating that social and academic outcomes may feed into each other and have dynamic, bi-directional relationships as a result of their connections to polyculturalism.

On the other hand, for the studies in which measures of multiculturalism and colorblindness were included (pilot study and Study 1), these two ideologies had more mixed relationships with outcome variables, which is consistent with past work on these ideologies. For example, in the pilot study, colorblindness did not have any significant unique associations (in regression models) with attitudes toward social inequality, or interest in, appreciation for, or comfort with diversity, and multiculturalism only had a significant unique association with greater support for social inequality. In Study 1, colorblindness had a significant unique association with less support for social inequality, and multiculturalism had a significant unique association with greater appreciation for diversity; there were no other significant unique associations for these ideologies. Thus, there seem to be some unique associations of these ideologies with positive intergroup attitudes, but also some negative associations, and many nonsignificant ones.

An important strength of these studies, particularly Study 1, was the racial and ethnic diversity of participants. The findings from this study suggest that polyculturalism

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is an ideology with positive implications not only for one group or some groups, but for all racial/ethnic groups for which I had large enough sample sizes to conduct extra tests, which included Asian, Black, Latino, and White Americans. As well, in this large sample, I was able to test and confirm that polyculturalism has positive implications for both women and men. On the other hand, there were more differences in the associations that multiculturalism and colorblindness had with outcome variables by both race/ethnicity and gender. Additionally, across racial/ethnic groups and for both men and women, all groups of participants seemed to endorse polyculturalism highly, suggesting that this is an ideology that is well-regarded across social groups. Multiculturalism was also endorsed highly, but colorblindness was endorsed to a lesser extent, consistent with past work.

Findings from these studies suggest that at least among college students at a diverse university, polyculturalism is associated with improved attitudes toward social equality, increased interest in, appreciation for, and comfort with diversity, decreased anxiety and stress when interacting with people from different racial/ethnic backgrounds, greater academic confidence and sense of belonging, and less drinking motivated by discomfort in intergroup settings. These findings provide important evidence for a promising and newly empirically studied intergroup ideology, namely polyculturalism.

Limitations and Future Directions

Findings from the studies in this dissertation provide promising evidence for polyculturalism's associations with social, academic, and health outcomes. There are several limitations to these studies, and many possible interesting future directions for research to explore.

Study methodology. One of the most important limitations of these studies is that they were all correlational, self-report, survey studies. Thus, the direction of effects is not clear, and social desirability, which is particularly relevant to these types of intergroup attitudes measures, may be an important issue. For example, means on study measures indicated that participants generally had positive intergroup attitudes, which could be based on the desire to present oneself as not being prejudiced, but could also indicate generally low levels of prejudice in these samples. It is not surprising, for example, that students highly endorsed multiculturalism, as multiculturalism is promoted by Stony Brook University itself. As well, in a university that prides itself on having a diverse student body, and faculty, and given the region in which the school is located, it is not surprising that students tended to have positive attitudes toward diversity or report low levels of anxiety in intergroup settings. To tease apart these issues, future work may want to test the relationship between polyculturalism (as well as the other ideologies) and more implicit measures of intergroup attitudes and anxiety, as the types of self-report measures used are certainly greatly impacted by social desirability.

As well, because the work was correlational and therefore the direction of effects is unclear, future work should use experimental methodologies to test if and how endorsement of polyculturalism can be increased or at least contextually activated, and test whether this can potentially improve social, academic, and health attitudes and outcomes in students or others in diverse settings. Polyculturalism being highly endorsed across social groups also raises the questions of the extent to which polyculturalism is chronically accessible, and in what situations it may become more or less salient for individuals. Again, future work should test experimental manipulations to address this

issue of how and if polyculturalism can be increased or made more salient and accessible to individuals in order to potentially be used for intervention types of purposes, and to confirm the direction of these effects.

However, although the studies were only correlational and therefore conclusions that can be drawn are limited, the findings from these studies provide at least some evidence that polyculturalism may be useful for improving intergroup attitudes, decreasing intergroup anxiety, improving sense of belonging and academic confidence, and reducing substance use motivated by discomfort in diverse social settings. As already stated, future work is needed using experimental studies to establish the direction of causality in these relationships, and therefore to be able to better inform policies, programs, or interventions that may seek to use polycuturalism to improve intergroup relations and related outcomes. The ways that polyculturalism may possibly be used in interventions or programs to improve social, academic, and health outcomes for people in diverse settings seem a fruitful avenue for future research.

Study samples. The samples in the studies are also limited in some ways. First, all of the studies were conducted with college students at one university. Future work should explore whether these findings replicate in other universities, for other age groups of students, and for adults in other types of diverse settings (e.g., work environments). Is it possible that polyculturalism is an ideology that has positive implications for social, academic, work, and health outcomes across age groups, or are there some age groups for which it has more positive associations than others? Also, the findings are limited to the Northeastern United States context, which may have unique intergroup dynamics that play into the results. Therefore to increase the understanding of polyculturalism and its

generalizability, future work should continue to study polyculturalism's relationship with intergroup attitudes and social, academic, and health outcomes across diverse samples in different parts of the United States and the world.

Related to this limitation, it seems that an interesting question is whether polyculturalism's association with positive social, academic, and health variables is limited to racially and ethnically diverse environments. For example, would polyculturalism have similar associations for college students at a more homogeneous university, or in primary or secondary schools that may tend to be more segregated? It would be interesting and important to explore whether polyculturalism has similar associations in other diverse countries in which multiculturalism and other ideologies have been studied previously (e.g., Canada, England, the Netherlands), but also to test polyculturalism's associations in more homogeneous countries. Another question that follows from this is whether polyculturalism might have associations with intergroup attitudes and relations that cross international borders, as opposed to only attitudes toward diversity and outgroups within one society or country.

While findings in these studies consistently supported polyculturalism's relation to positive attitudes and outcomes, it is of course still possible that endorsement of polyculturalism could have unintended negative consequences. For example, it is possible that if someone greatly values and takes pride in an element of their culture that they associate with only their ingroup, polyculturalism's focus on the influences that other groups may have had on such a product could make that person feel defensive or angry. In this vein, future work may want to explore issues of ethnic identification in relation to polyculturalism and the other ideologies (e.g., see Ryan, Casas, Kelly-Vance, Ryalls, &

Nero, 2010; Verkuyten, 2009). Also, as already briefly mentioned, the interactions that different groups have had throughout history have not always been positive, and a focus on such negative interactions (e.g., slavery, colonization) that have had an impact on groups of people and cultures may result in intergroup hostility and resentment. These and other possible weaknesses or pitfalls of polyculturalism require attention (for a review, see Rosenthal & Levy, 2010). Particularly, these findings are all with a scale of polyculturalism that is "neutral" in terms of valence, not focusing on positive nor negative interactions. Future work may want to particularly explore whether a focus on positive versus negative interactions and influences among racial and ethnic groups, or a combination of the two have more positive or negative implications.

Theoretical model and mechanisms. As well, although there was some support for intergroup anxiety being an important mediator of the relationship between polyculturalism and both academic confidence and sense of belonging at the university, there was not complete mediation for all of these analyses, and the test of mediation failed for the relationship between polyculturalism and drinking motivated by intergroup discomfort. As well, although there was also support for academic self-efficacy being a mediator between polyculturalism and intergroup anxiety, there was not support for academic and health outcomes mediating each other's relationships with polyculturalism. Thus, there are likely some other important mediators, or mechanisms through which polyculturalism is associated with social, academic, and health outcomes that I did not test. Future work may want to explore other possible mediators to understand the ways that polyculturalism contributes to social, academic, and health outcomes. One potential mediator that future work may want to explore is the amount of intergroup friendships

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formed after entering a new diverse setting (e.g., a university). Does greater endorsement of polyculturalism lead one to be more likely to form intergroup friendships, which then can lead to improved intergroup attitudes (e.g., Pettigrew & Tropp, 2006), greater comfort in diverse settings, and improved academic and health outcomes? For example, past work has found that forming intergroup friendship can reduce intergroup anxiety (e.g., Page-Gould et al., 2008). Or, could the forming of intergroup friendships as a result of polyculturalism also mean that one develops quantitatively more friendships and connections with others on campus, which could then lead to improved academic and health outcomes because of the increased social networks that can support students through their undergraduate career? Another potential mediator (or even moderator) of some of these relationships could be ethnic identity, and future work may want to explore whether polyculturalism has any relationship with ethnic identity or what role it plays in these relationship, if any at all. As well, people's perceptions of how common intergroup friendships and intergroup contact are could be a potential mediator of some of polyculturalism's relationships with social, academic, and health outcomes. Particularly for members of marginalized and stereotyped racial and ethnic groups, is it also possible that decreased stereotype threat, or worry about being judged by or confirming a societal stereotype about one's group (e.g., Steele, 1997), could account for some of the relationships between polyculturalism and social, academic, and health outcomes? There are many possible mechanisms through which these relationships might operate, and this is important to continue to study. In this way, future work can help to further develop and revise the theoretical model that I proposed, which was supported to some extent by these studies, and help to improve our understanding of the processes and mechanisms

involved in polyculturalism's relationships with various social, academic, and health outcomes.

There are also further questions that derive from the proposed theoretical model. One is what actually leads to endorsement of polyculturalism. When and where is polyculturalism learned or incorporated into one's belief systems? What sorts of social influences affect endorsement of polyculturalism? As the studies included in this dissertation only included one time point, it is also not yet clear how stable of a belief polyculturalism is. Future work may want to examine endorsement of polyculturalism over time, using for example experience sampling methodology to collect repeated-measures over time. This type of work could contribute to understanding and revising the proposed theoretical model as well, as it would allow for examining effects over time, and give some indication of the direction of effects. In this work, it would be possible to test whether some of the variables considered outcomes in this dissertation (social, academic, and health variables) might also feed back and affect endorsement of polyculturalism. For example, it seems plausible that if students over time at a diverse university become more comfortable around people from different racial and ethnic backgrounds, experiencing less anxiety, and therefore forming more cross-group friendships, they may begin to endorse polyculturalism more, as they experience first hand the ways that other people's cultures affect them through those interactions. Or, another possibility is that academic variables could affect endorsement of polyculturalism if the more engaged students are academically, the more they may learn about polyculturalism through the knowledge they are gaining in their studies. It would be interesting for future work to explore some of these questions and potentially add to the

proposed theoretical model, suggesting that all pathways are bi-directional, or that other influences should be added to the model.

In addition to the need to explore more possible mediators of these relationships and possible bi-directional effects, it is also important for future work to continue to test new variables that could be outcomes or consequences of endorsement of polyculturalism, as well as multiculturalism and colorblindness. This works extends the work on intergroup ideologies to some variables that were not previously studied in this context, and there are many possible social, academic, and health variables that have still yet to be tested in relation to intergroup ideologies. For example, if polyculturalism is associated with decreased intergroup anxiety, greater sense of belonging, and greater academic self-efficacy for students in diverse universities, is it also possible that polyculturalism could be associated with improved academic outcomes across one's undergraduate career, such as grade point average? Or, as polyculturalism is associated with less alcohol drinking motivated by intergroup discomfort, is it also possible that polyculturalism is associated with less drinking alcohol in terms of raw quantity, and/or less use of other substances (e.g., drugs such as ecstasy, mushrooms, etc., which are also health issues on some college campuses) motivated by intergroup discomfort?

Other future directions. Another important line of future work could examine the importance of not simply individuals' endorsement of polyculturalism for various outcomes, but also of an institution's promotion or endorsement of polyculturalism, such as a school or workplace. There is some work suggesting that the type of intergroup ideology that is promoted by an institution or perceived to be endorsed by others at an institution may affect the comfort and well-being of diverse individuals working or going

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to school in that place (e.g., Mabokela & Madsen, 2005; Plaut, Thomas, & Goren, 2009; Purdie-Vaughns et al., 2008). It could be that level of endorsement of polyculturalism by a university or organization could affect intergroup relations, as well as other social, academic, work, and health outcomes of students or employees independently, or could interact with individuals' endorsement of polyculturalism to affect those outcomes.

Although polyculturalism focuses attention on all forms of interaction, influence, and connection among different racial, ethnic, and cultural groups, it is also potentially an interesting question whether people who are racially/ethnically mixed, or people in interracial relationships and potentially with mixed children, endorse polyculturalism to a greater extent than others, or have a different perspective on this ideology. Because of the limited numbers of people identifying as racially/ethnically mixed in these samples (many people identifying as "Other" did not identify as "Mixed"), I did not examine this in these studies. However, future work may want to focus in on individuals who identify as racially/ethnically mixed, who in some ways actually embody polyculturalism.

Another fruitful line of future work is exploring whether intergroup ideologies, particularly polyculturalism, have implications for improving attitudes across numerous social categories, including gender, social class, sexual orientation, or physical ability (e.g., Banks, 2004; Prashad, 2001; Zirkel, 2008). Some of the outcome measures in the present investigation, such as SDO and the subscales of MGUDS, indicate that polyculturalism could have associations with other forms of prejudice or intergroup interactions, even though these studies focused primarily on interethnic relations and related outcomes. Future work may be able to expand the applicability of intergroup ideologies to other forms of intergroup attitudes, further expanding our understanding of

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the implications of intergroup ideologies. For example, we currently have some preliminary results from studies testing polyculturaism's relationship with sexist attitudes and sexual prejudice. So far, we have some evidence that endorsement of polyculturalism is associated with lower sexism and sexual prejudice, and that these relationships are partially mediated by greater openness to criticizing elements of one's own culture that may oppress some groups of people. It may be that the study of polyculturalism could be expanded into many different areas and that polyculturalism could be an ideology with quite far-reaching implications.

V. Conclusion

The results of some of the first empirical tests of polyculturalism represent an exciting first step toward showing the promise of polyculturalism as an ideology that has unique associations with positive social, academic, and health outcomes, beyond the contributions of other well-studied ideologies and relevant variables. On the other hand, multiculturalism and colorblindness showed more mixed relationships with these outcome variables. Polyculturalism may indeed be an ideology with multiple and far-reaching positive consequences for people living, working, and going to school in racially and ethnically diverse settings, and results from these studies provide some evidence to support the proposed theoretical model of polyculturalism's connections with social, academic, and health outcomes among diverse individuals. I look forward to future work on intergroup ideologies involving the study of polyculturalism, with the hope that research on intergroup ideologies can continue contributing to a greater understanding of intergroup attitudes and relations, as well as the many important associated outcomes in our diverse world.

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Appendix 1: Figure Captions and Figures

Figure Captions

Figure 1. Depiction of general theoretical model of polycultutalism's relationship with social, academic, and health-related outcomes.

Figure 2. Results of mediation analysis in Study 1, testing whether intergroup anxiety mediates the relationship between endorsement of polyculturalism and academic self-efficacy ($N = 684$). Paths represent standardized betas, and the path beta in parentheses represents the relationship between the hypothesized independent and dependent variables before the mediator was included in the model. * $p < .05$; ** $p < .01$.

Figure 3. Results of mediation analysis in Study 1, testing whether academic self-efficacy mediates the relationship between endorsement of polyculturalism and intergroup anxiety ($N = 684$). Paths represent standardized betas, and the path beta in parentheses represents the relationship between the hypothesized independent and dependent variables before the mediator was included in the model. * $p < .05$; ** $p < .01$.

Figure 4. Results of mediation analysis in Study 1, testing whether comfort with differences mediates the relationship between endorsement of polyculturalism and academic self-efficacy ($N = 445$). Paths represent standardized betas, and the path beta in parentheses represents the relationship between the hypothesized independent and dependent variables before the mediator was included in the model. * $p < .05$; ** $p < .01$.

Figure 5. Results of mediation analysis in Study 1, testing whether academic self-efficacy mediates the relationship between endorsement of polyculturalism and comfort with differences ($N = 445$). Paths represent standardized betas, and the path beta in

parentheses represents the relationship between the hypothesized independent and dependent variables before the mediator was included in the model. * $p < .05$; ** $p < .01$.

Figure 6. Results of mediation analysis in Study 2, testing whether intergroup anxiety mediates the relationship between endorsement of polyculturalism and sense of belonging ($N = 159$). Paths represent standardized betas, and the path beta in parentheses represents the relationship between the hypothesized independent and dependent variables before the mediator was included in the model. * $p < .05$; ** $p < .01$.

Figure 7. Results of mediation analysis in Study 2, testing whether intergroup anxiety mediates the relationship between endorsement of polyculturalism and academic confidence ($N = 159$). Paths represent standardized betas, and the path beta in parentheses represents the relationship between the hypothesized independent and dependent variables before the mediator was included in the model. * $p < .05$; ** $p < .01$.

Figure 8. Results of mediation analysis in Study 2, testing whether academic confidence mediates the relationship between endorsement of polyculturalism and intergroup anxiety ($N = 159$). Paths represent standardized betas, and the path beta in parentheses represents the relationship between the hypothesized independent and dependent variables before the mediator was included in the model. * $p < .05$; ** $p < .01$.

Figure 1.
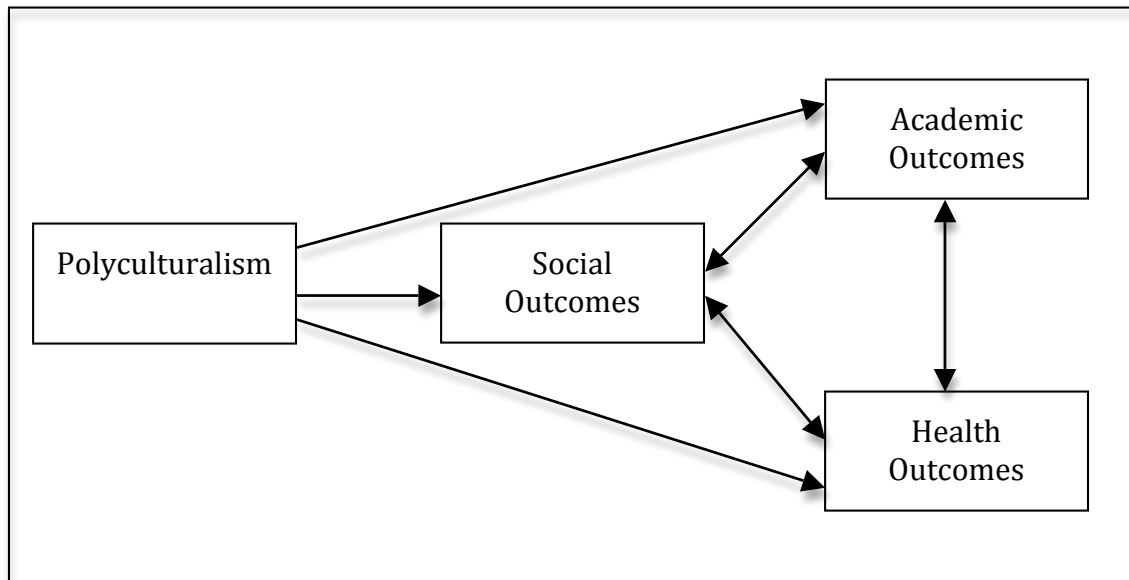
Figure 2.

Figure 3.

Figure 4.

Comfort with Differences

Polyculturalism

Academic Self-Efficacy

$b = .33**$

$b = .16**$

$b = .20**$

$(.25**)$

Figure 5.

Figure 6.

Intergroup
Anxiety

Polyculturalism

Sense of
Belonging

$b = -.25**$

$b = -.26**$

$b = .11$

$(.17*)$

Figure 7.

Figure 8.

Polyculturalism

Academic
Confidence

Intergroup
Anxiety

$b = .22**$

$b = -.30**$

$b = -.19*$

$(-.25**)$
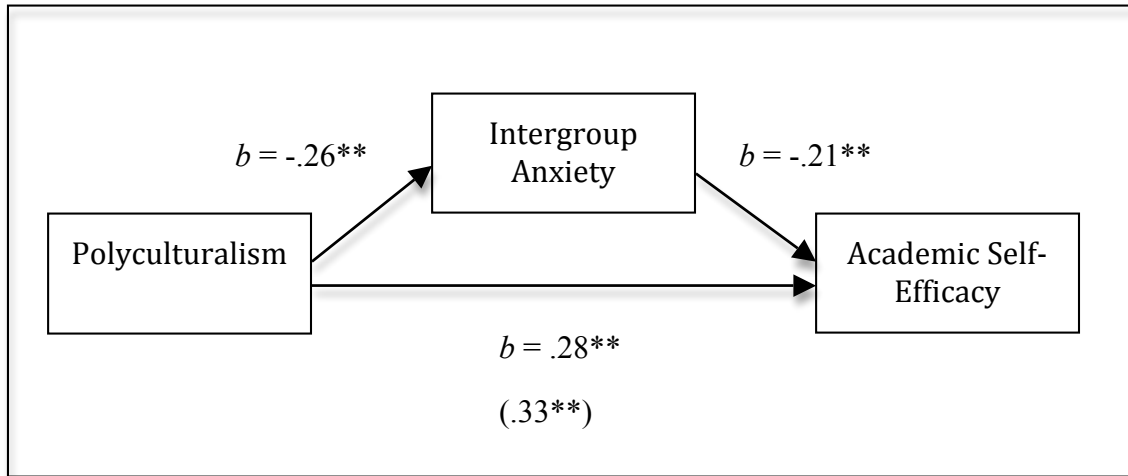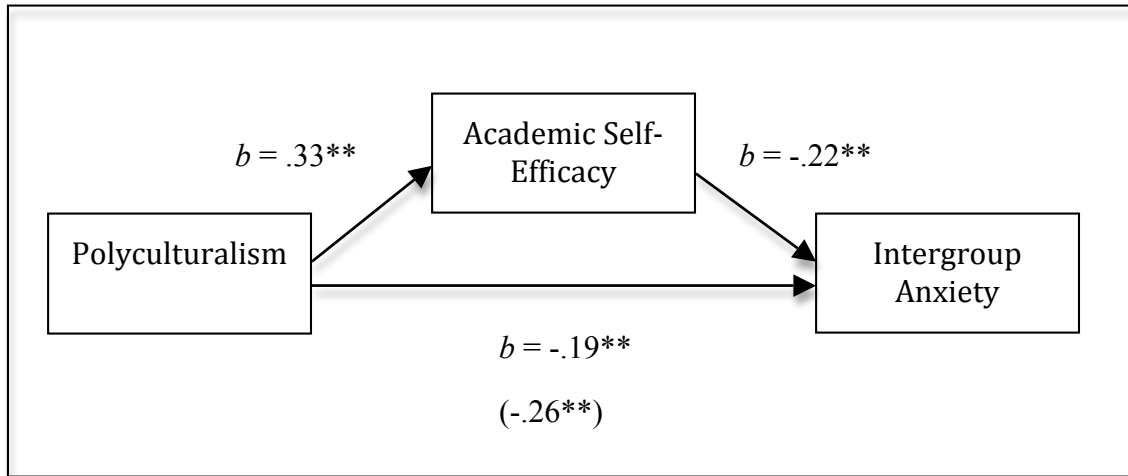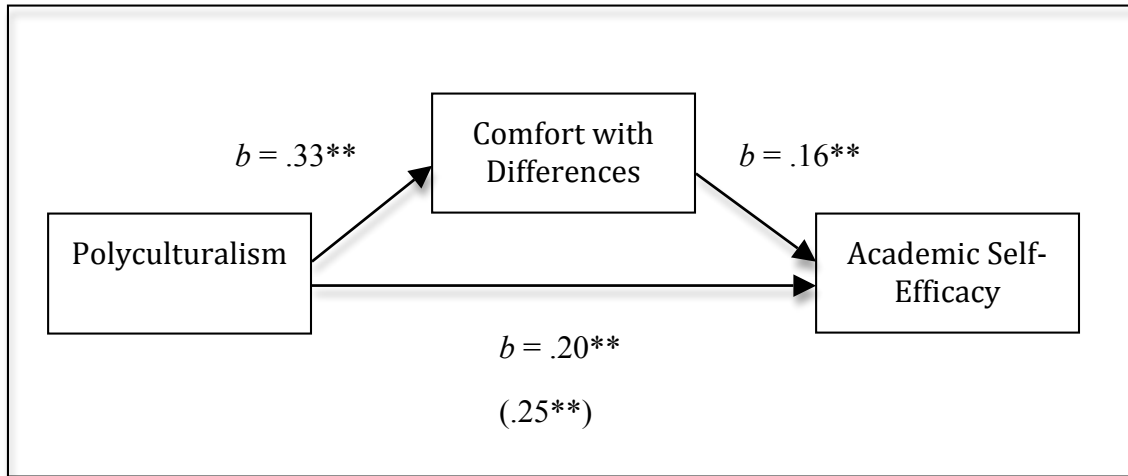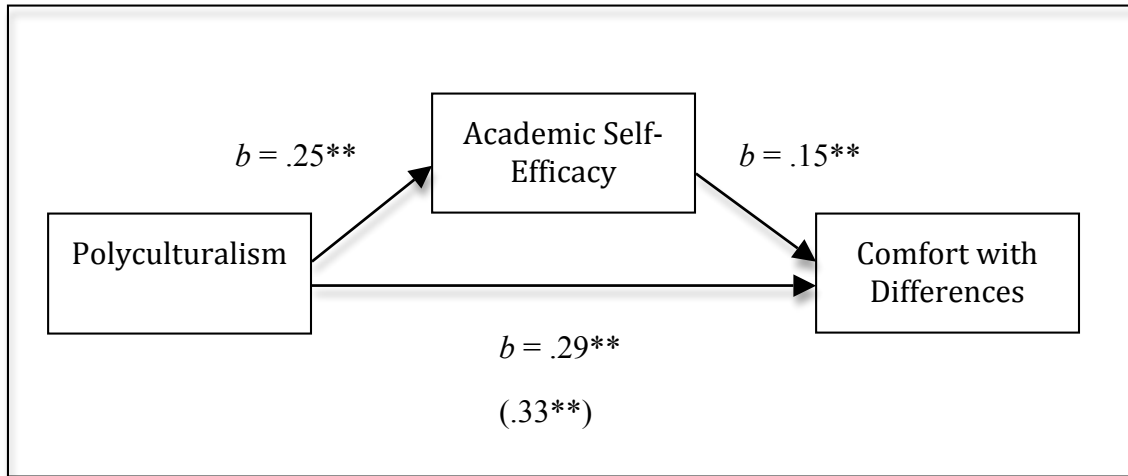
Appendix 2: Tables

Table 1.

Results of Factor Analyses with 15 Intergroup Ideologies Items Using a Varimax Rotation with Three Factors, Pilot Study and Study 1

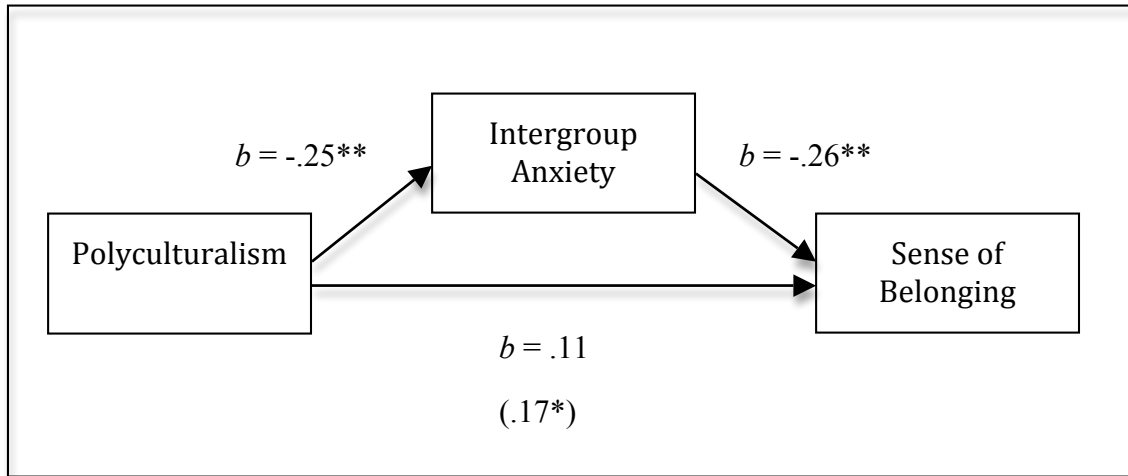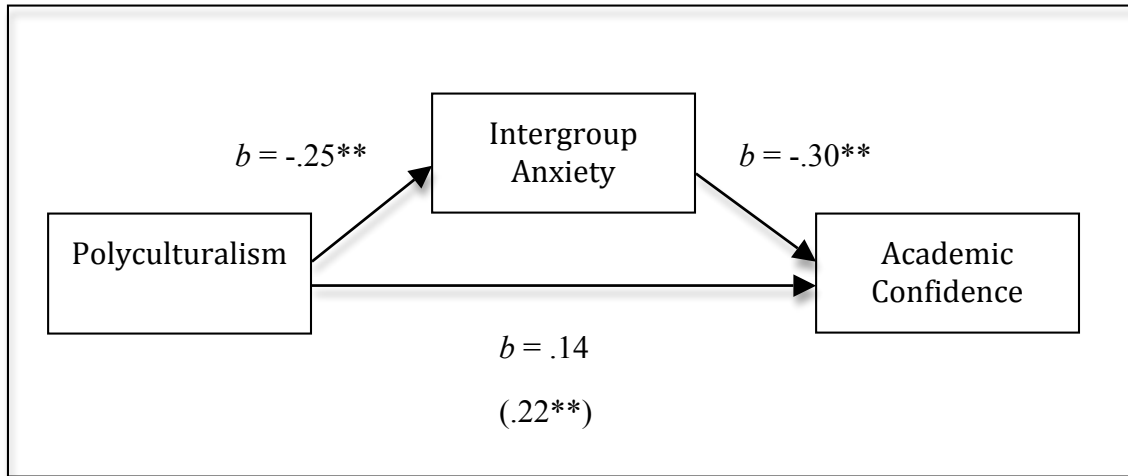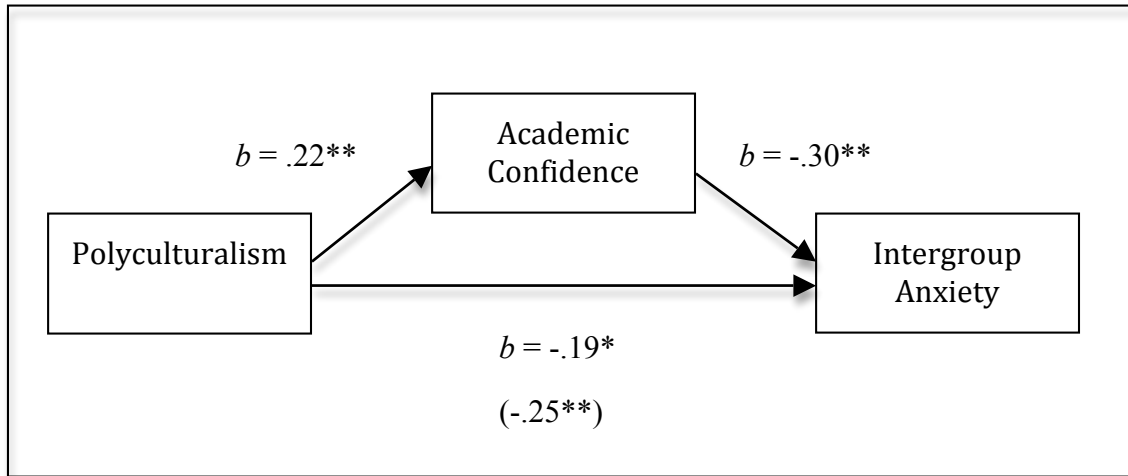| Item	Pilot Study			Study 1		
Polyculturalism Items	Factor 1 Loading	Factor 2 Loading	Factor 3 Loading	Factor 1 Loading	Factor 2 Loading	Factor 3 Loading
Different cultural groups impact one another, even if members of those groups are not completely aware of the impact.	.78	.13	.06	.77	-.08	.21
Although ethnic groups may seem to have some clear distinguishing qualities, ethnic groups have interacted with one another and thus have influenced each other in ways that may not be readily apparent or discussed.	.84	.08	-.01	.77	-.03	.21
There are many connections between different cultures.	.79	.01	.29	.83	.01	.14
Different cultures and ethnic groups probably share some traditions and perspectives because these groups have impacted each other to some extent over the years.	.86	-.08	.26	.85	.03	.15
Different racial, ethnic, and cultural groups influence each other.	.74	-.00	.40	.87	-.03	.15
Multiculturalism Items						
All cultures have their own distinct traditions and perspectives.	.02	.08	.78	.14	.03	.73
There are boundaries between different ethnic groups because of the differences between cultures.	.11	.04	.55	.06	-.09	.76
There are differences between racial and ethnic groups, which are important to recognize.	.12	.02	.73	.15	-.15	.73
Each ethnic group has its own strengths that can be identified.	.40	-.24	.58	.27	.07	.70
Each racial and ethnic group has important distinguishing characteristics.	.38	-.17	.69	.26	-.10	.76
Colorblindness Items						
Ethnic and cultural group categories are not very important for understanding or making decisions about people.	.07	.57	.01	-.05	.72	.01

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It is really not necessary to pay attention to people's racial, ethnic, or cultural backgrounds because it doesn't tell you much about who they are.	-.02	.79	-.12	-.09	.84	-.05
At our core, all human beings are really all the same, so racial and ethnic categories do not matter.	-.01	.82	-.03	.07	.82	-.08
Racial and ethnic group memberships do not matter very much to who we are.	-.04	.84	.09	-.07	.82	-.14
All human beings are individuals, and therefore race and ethnicity are not important.	.07	.81	.00	.03	.81	-.11

Table 2.

Bivariate Correlations, Means, and Standard Deviations of Pilot Study Variables (N = 90)

Variable	1	2	3	4	5	6	7
1. Polyculturalism	____						
2. Multiculturalism	.49**	____					
3. Colorblindness	.03	-.08	____				
4. Social Dominance Orientation	-.28**	.11	-.14	____			
5. Interest in Diversity	.31**	.08	.10	-.41**	____		
6. Appreciation for Diversity	.44**	.30**	.11	-.33**	.52**	____	
7. Comfort with Differences	.28**	.01	.00	-.43**	.28**	.26*	____
Means	5.84	5.32	3.31	-2.07	4.59	4.76	4.90
Standard Deviations	0.82	0.84	1.35	0.92	0.89	0.66	0.70

*p < .05; **p < .01

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Table 3.

Regression Analyses for Pilot Study (N = 90)

	Social Dominance Orientation		Interest in Diversity		Appreciation for Diversity		Comfort with Differences	
	R^2	b	R^2	b	R^2	b	R^2	b
Model	.14**		.08*		.18**		.07*	
Colorblindness		-.10		.09		.11		-.03
Multiculturalism		.32**		-.09		.13		-.17
Polyculturalism		-.43**		.35**		.37**		.36**

*p < .05; **p < .01*

Table 4.

Bivariate Correlations, Means, and Standard Deviations of Study Variables for Study 1

Variable	1	2	3	4	5	6	7	8	9
1. Polyculturalism									
2. Multiculturalism	.40**	____							
3. Colorblindness	-.07*	-.18**	____						
4. Social Dominance Orientation	-.28**	-.09*	-.07	____					
5. Interest in Diversity	.30**	.13**	.01	-.37**	____				
6. Appreciation for Diversity	.36**	.25**	-.10*	-.31**	.61**	____			
7. Comfort with Differences	.33**	.11**	-.07	-.38**	.29**	.23**	____		
8. Intergroup Anxiety	-.26**	-.10*	.04	.40**	-.33**	-.18**	-.59**	____	
9. Academic Self-Efficacy	.33**	.20**	-.05	-.13**	.22**	.22**	.26**	-.28**	____
Means	5.77	5.42	3.42	-1.84	4.57	4.71	4.90	2.26	4.01
Standard Deviations	0.89	0.93	1.39	0.98	0.92	0.76	0.84	0.67	0.74

*p < .05; **p < .01

All 933 participants completed polyculturalism, multiculturalism, and colorblindness measures; 694 completed SDO and MGUDS measures; 684 completed intergroup anxiety and academic self-efficacy measures.

Table 5.

Regression Analyses for Study 1

	Social Dominance Orientation		Interest in Diversity		Appreciation for Diversity		Comfort with Differences		Intergroup Anxiety		Academic Self-Efficacy	
	R^2	*b*	R^2	*b*	R^2	*b*	R^2	*b*	R^2	*b*	R^2	*b*
Model	.09**		.09**		.15**		.11**		.07**		.12**	
Colorblindness		-.09*		.03		-.05		-.06		.03		-.03
Multiculturalism		.02		.02		.12**		-.04		.02		.07
Polyculturalism		-.29**		.30**		.32**		.34**		-.27**		.30**

*p < .05; **p < .01

N = 694 for SDO and subscales of MGUDS; N = 684 for intergroup anxiety and academic self-efficacy.

Table 6.

Bivariate Correlations, Means, and Standard Deviations of Study 2 Variables (N = 159)

Variable	1	2	3	4	5	6
1. Polyculturalism	____					
2. Intergroup Anxiety	-.25**	____				
3. Sense of Belonging	.17*	-.29**	____			
4. Academic Confidence	.22**	-.34**	.43**	____		
5. Drinking Motivated by Intergroup Discomfort	-.16*	.18*	-.11	-.24**	____	
6. General Social Anxiety	.02	.39**	-.20*	-.19*	.11	____
Means	5.99	2.16	5.30	5.29	1.81	2.35
Standard Deviations	0.66	0.68	1.30	1.24	1.24	1.05

*p < .05; **p < .01

Table 7.

Regression Analyses for Study 2 (N = 159)

	Intergroup Anxiety		Sense of Belonging		Academic Confidence		Drinking Motivated by Intergroup Discomfort	
	ΔR^2	*b*	ΔR^2	*b*	ΔR^2	*b*	ΔR^2	*b*
Step 1	.15**		.04*		.04*		.01	
General Social Anxiety		.39**		-.20*		-.19*		.11
Step 2	.07**		.03*		.05**		.03*	
General Social Anxiety		.39**		-.21**		-.19*		.11
Polyculturalism		-.26**		.18*		.22**		-.16*

*p < .05; **p < .01

Appendix 3: Measures

The following measures were created to assess agreement with the three ideologies of interest: polyculturalism, multiculturalism, and colorblindness. These measures are used in the pilot study and Study 1, and the polyculturalism scale only was also used in Study 2.

<u>Instructions:</u> Please indicate how much you agree or disagree with each of the following statements by choosing a number from 1 to 7, 1 being "Strongly Disagree" and 7 being "Strongly Agree."

Strongly Disagree	Disagree	Disagree a little bit	Neutral	Agree a little bit	Agree	Strongly Agree
1	2	3	4	5	6	7

Polyculturalism Items

1. Different cultural groups impact one another, even if members of those groups are not completely aware of the impact.

2. Although ethnic groups may seem to have some clear distinguishing qualities, ethnic groups have interacted with one another and thus have influenced each other in ways that may not be readily apparent or discussed.

3. There are many connections between different cultures.

4. Different cultures and ethnic groups probably share some traditions and perspectives because these groups have impacted each other to some extent over the years.

5. Different racial, ethnic, and cultural groups influence each other.

Multiculturalism Items

1. All cultures have their own distinct traditions and perspectives.

2. There are boundaries between different ethnic groups because of the differences between cultures.

3. There are differences between racial and ethnic groups, which are important to recognize.

4. Each ethnic group has its own strengths that can be identified.

5. Each racial and ethnic group has important distinguishing characteristics.

Colorblindness Items

1. Ethnic and cultural group categories are not very important for understanding or making decisions about people.

2. It is really not necessary to pay attention to people's racial, ethnic, or cultural backgrounds because it doesn't tell you much about who they are.

3. At our core, all human beings are really all the same, so racial and ethnic categories do not matter.

4. Racial and ethnic group memberships do not matter very much to who we are.

5. All human beings are individuals, and therefore race and ethnicity are not important.

The following measure is an established measure of social dominance orientation. It is used in the pilot study and Study 1:

Instructions: Please indicate a number from -3 to 3 that matches your reaction to each statement based on the following response options.

Very Negative	Negative	Slightly Negative	Neither Positive nor Negative	Slightly Positive	Positive	Very Positive
-3	-2	-1	0	1	2	3

1. ____ Some groups of people are simply inferior to other groups.

2. ____ In getting what you want, it is sometimes necessary to use force against other groups.

3. ____ It's OK if some groups have more of a chance in life than others.

4. ____ To get ahead in life, it is sometimes necessary to step on other groups.

5. ____ If certain groups stayed in their place, we would have fewer problems.

6. ____ It's probably a good thing that certain groups are at the top and other groups are at the bottom.

7. ____ Inferior groups should stay in their place.

8. ____ Sometimes other groups must be kept in their place.

9. ____ It would be good if groups could be equal

10. ____ Group equality should be our ideal.

11. ____ All groups should be given an equal chance in life.

12. ____ We should do what we can to equalize conditions for different groups.

13. ____ Increased social equality.

14. ____ We would have fewer problems if we treated people more equally.

15. ____ We should strive to make incomes as equal as possible.

16. ____ No one group should dominate society.

The following measure is an established measure of universal-diverse orientation (short-form version). It is used in the pilot study and Study 1:

Instructions: Please indicate how descriptive each statement is of you by filling in the number corresponding to your response.

1	2	3	4	5	6
Strongly Disagree	Disagree	Disagree A Little Bit	Agree A Little bit	Agree	Strongly Agree

1._____ I would like to join an organization that emphasizes getting to know people from different countries.

2._____ Persons with disabilities can teach me things I could not learn elsewhere.

3._____ Getting to know someone of another race would be an uncomfortable experience for me.

4._____ I would like to go to dances that feature music from other countries.

5._____ I would best understand someone after I get to know how he/she is both similar and different from me.

6._____ I would only be at ease with people of my race.

7._____ I would like to listen to music of other cultures.

8._____ Knowing how a person differs from me would greatly enhance our friendship.

9._____ It would be really hard for me to feel close to a person from another race.

10.____ I am interested in learning about the many cultures that have existed in this world.

11.____   In getting to know someone, I would like to know both how he/she differs

from me and is similar to me.

12.____   It would be very important that a friend agrees with me on most issues.

13.____   I would like to attend events where I might get to know people from

different racial backgrounds.

14.____   Knowing about the different experiences of other people would help me

understand my own problems better.

15.____   I would feel irritated by persons of a different race.

The following is an established measure of intergroup anxiety. It is used in Studies 1 and 2:

Instructions: Please read each statement carefully, and respond by using the scale from 1 to 5:

Strongly Disagree				Strongly Agree
1	2	3	4	5

1. ____ I would feel nervous if I had to sit alone in a room with a person from a different racial/ethnic background and start a conversation.

2. ____ I just do not know what to expect from people from different racial/ethnic backgrounds.

3. ____ Although I do not consider myself a racist, I do not know how to present myself around people from different racial/ethnic backgrounds.

4. ____ My lack of knowledge about other cultures prevents me from feeling completely comfortable around people from different racial/ethnic backgrounds.

5. ____ I can interact with people from different racial/ethnic backgrounds without experiencing much anxiety.

6. ____ If I were at a party, I would have no problem with starting a conversation with a person from a different racial/ethnic background.

7. ____ It makes me uncomfortable to bring up the topic of racism around people from different racial/ethnic backgrounds.

8. ____ I experience little anxiety when I talk to people from different racial/ethnic backgrounds.

9. ____ The cultural differences between people from different racial/ethnic backgrounds make interactions between people from different racial/ethnic backgrounds awkward.

10. ____ I would experience some anxiety if I were the only person from my racial/ethnic background in a room full of people from different racial/ethnic backgrounds.

11. ____ I worry about coming across as a racist when I talk with people from different racial/ethnic backgrounds.

The following is an established measure of academic self-efficacy. It is used in Study 1:

Instructions: Here are some questions about yourself as a student in your classes at Stony Brook University. Please indicate the number that describes what you think for each of the following items.

1	2	3	4	5
NOT AT ALL TRUE		SOMEWHAT TRUE		VERY TRUE

1. _____ I'm certain I can master the skills taught in my classes this year.

2. _____ I'm certain I can figure out how to do the most difficult class work.

3. _____ I can do almost all the work in my classes if I don't give up.

4. _____ Even if the work is hard, I can learn it.

5. _____ I can do even the hardest work in my classes if I try.

The following is an item used to measure sense of belonging at Stony Brook University, and was used in Study 2.

Instructions: Please indicate how much you agree or disagree with each of the following statements by choosing a number from 1 "Strongly Disagree" to 7 "Strongly Agree."

Strongly Disagree	Disagree	Disagree a little bit	Neutral	Agree a little bit	Agree	Strongly Agree
1	2	3	4	5	6	7

1. _____ I fit in well at Stony Brook University.

The following is an item used to measure academic confidence in Study 2.

Instructions: Please indicate how much you agree or disagree with each of the following statements by choosing a number from 1 "Strongly Disagree" to 7 "Strongly Agree."

Strongly Disagree	Disagree	Disagree a little bit	Neutral	Agree a little bit	Agree	Strongly Agree
1	2	3	4	5	6	7

1. _____ I do well in my classes at Stony Brook University.

The following are two items used to measure drinking motivated by intergroup discomfort in Study 2.

Instructions: Please indicate how much you agree or disagree with each of the following statements by choosing a number from 1 "Strongly Disagree" to 7 "Strongly Agree."

Strongly Disagree	Disagree	Disagree a little bit	Neutral	Agree a little bit	Agree	Strongly Agree
1	2	3	4	5	6	7

1. In social settings where I am around people from racial/ethnic backgrounds other than my own I drink alcohol to help ease my anxiety and discomfort over being around people from backgrounds other than my own.

2. I drink alcohol when I am in a social situation with people from racial/ethnic backgrounds other than my own because drinking helps me relax and feel comfortable.

The following is a shortened version of an established measure of general social anxiety, and was used in Study 2.

Instructions: Please indicate the extent to which each of the statements is characteristic or true for you, by choosing a number from 1 "Not at all True" to 5 "Completely True."

Not at all True					Completely True
0	1	2	3	4	5

1. _____ I often feel nervous even in casual get-togethers.

2. _____ I usually feel uncomfortable when I am in a group of people I don't know.

3. _____ Parties often make me feel anxious and uncomfortable.

4. _____ I am probably less shy in social interactions than most people.

5. _____ I wish I had more confidence in social situations.

6. _____ I seldom feel anxious in social situations.

7. _____ In general, I am a shy person.

The following are the demographic questions asked of participants in the pilot study, Study 1, and Study 2.

1. How old are you? _____

2. What is your gender? _____

3. What is/are your race **AND/OR** ethnicity?

_____

4. Check one of the following that best describes your race and/or ethnicity.

_____ African American/Black

_____ Caribbean

_____ European American/White

_____ Latino/Hispanic

_____ East Asian

_____ South Asian

_____ Native American/American Indian

_____ Other or Mixed (Please Specify): _____

5. Were you born in the United States (Yes/No)? _____

6. If you were not born in the United States, how many years have you been living in the

U.S.? _____