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## Relation among ethnic studies courses and the reduction of explicit and implicit racial bias

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**Relation among ethnic studies courses and the reduction of  
explicit and implicit racial bias**

by

**Julio C. Rivas**

A dissertation submitted to the graduate faculty  
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Psychology (Counseling Psychology)

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The student author, whose presentation of the scholarship herein was approved by the program of study committee, is solely responsible for the content of this dissertation. The Graduate College will ensure this dissertation is globally accessible and will not permit alterations after a degree is conferred

Iowa State University

Ames, Iowa

2020

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**ABSTRACT**

Students of color regularly face discrimination on college campuses. Ethnic studies courses have been established as a possible method of racial bias reduction in college students. Aversive racism theory and internalized racism research suggest that both explicit and implicit bias should be considered when examining racial bias reduction. Research has also suggested that sex and ethnicity/race may moderate explicit and implicit bias.

Results indicate that European American men had the highest explicit racial bias scores, and they were the most likely to have a significant reduction in ethnic studies courses. In general, European American participants had higher scores of implicit racial bias than participants of color. Levels of implicit racial bias did not statistically significantly change for participants across the semester. However, enrollment in a distanced/online ethnic studies course may influence students' implicit racial bias. Implications for future research concerning racial bias reduction in ethnic studies courses as well as implications for teaching are discussed.

## CHAPTER 1. INTRODUCTION

Experiences of racism and discrimination are common for students of color in universities and college (Cabrera & Nora, 1994, Cokley et al., 2017; Hwang & Goto, 2008; Juang, Ittel, Hoferichter & Gallarin, 2016; McCabe, 2009; Office for Civil Rights 2016; Rankin & Reason, 2005; Solorzano, Ceja, & Yosso, 2000). Discrimination experiences have been shown to be related to students of color's general mental health, depressive symptoms, anxious symptoms, self-esteem, suicidal ideation, life satisfaction, adjustment to college, imposter syndrome and reduction of social support (Cokley et al., 2017; Donovan, Galban, Grace, Bennett & Felicié, 2013; Hwang & Goto, 2008; Nadal, Griffin, Wong, Hamit & Rasmus, 2014; Nadal, Wong, Griffin, Davidoff, & Sriken, 2014; Nadal, Wong, Sriken, Griffin & Fujii-Doe, 2015; Nora & Cabrera, 1996; Prelow, Mosher, & Bowman, 2006).

Universities have expanded their curriculum to include ethnic studies and diversity courses (Bataille, Carranza, & Lisa, 1996; Gurin, P., Dey, E., & Hurtado, S., 2002; Harper & Hurtado, 2007; Hoang, 2012) to meet the goal of creating culturally inclusive environments (Guo and Jamal, 2007; Harper & Hurtado, 2007; Quaye & Harper, 2007). Ethnic studies courses have focused on integrating the experiences of African Americans, Asian Americans, Native Americans and Latinx Americans into traditionally European American-centric educational content (Hu-DeHart, 2004; Hoang, 2012, Sleeter, 2011). The goals of ethnic studies courses include learning about specific cultural groups while changing attitudes about race and racism. Students often take college-level ethnic studies courses to fulfill university-level diversity course requirements (Sleeter, 2011) As a requirement, ethnic studies courses can serve as a source to improve the campus climate on issues of race and racism. Ethnic studies courses have the potential of reducing racial bias in college students.

### **Aversive Racism**

Aversive racism theory (Dovidio & Gaertner, 2004; Dovidio, Gaertner & Pearson, 2016; Gaertner & Dovidio, 1986; Pearson, Dovidio & Gaertner, 2009) provides a theoretical foundation for examining the reduction of racial bias through college courses. Aversive racism theory holds that racial bias can be divided into the constructs of explicit and implicit bias (Dovidio, Kawakami & Beach, 2001; Dovidio & Gaertner, 2004). Explicit racial bias is defined by conscious attitudes and intentional responses (Axel, 2017; Dovidio & Gaertner, 2004; Dovidio, Kawakami & Gaertner, 2002). Implicit racial bias is defined by automatic cognitive processes and associations (Greenwald & Krieger, 2006; Pearson et al., 2009). Meta-analyses have found implicit and explicit measures of racial bias have a small but significant correlation (Dovidio, Kawakami & Beach, 2001; Greenwald, Poehlman, Uhlmann and Banaji, 2009). Implicit and explicit measures of racial bias have been known to differently predict verbal and non-verbal discriminating behavior (Dovidio, Kawakami & Gaertner, 2002; Fazio, Jackson, Dunton & Williams, 1995; Greenwald et al., 2009; McConnell & Leibold, 2001; Word, Zanna & Cooper, 1974

Aversive racism refers to the combination of non-biased explicit attitudes with biased implicit attitudes (Dovidio & Gaertner, 2004; Gaertner & Dovidio, 1986). Aversive racists behave in discriminating ways that are inconsistent with their conscious beliefs (Dovidio & Gaertner, 2004; Son Hing, Chung-Yan, Grunfeld, Robichaud & Zanna, 2005). People with patterns of aversive racism are more likely to avoid interracial contact (Dovidio & Gaertner, 2004; Gaertner, 1973) and discriminate when situations are unclearly related to race (Dovidio and Gaertner 2000; Dovidio & Gaertner, 2004; Johnson, Jackson & Gatto, 1995; Knight, Guiliano & Sanchez-Ross, 2001; Sommers & Ellsworth, 2000; Pearson, Dovidio & Pratto, 2007;



Saucier, Miller and Doucet, 2005; Son Hing et al., 2005; Son Hing, Chung-Yan, Hamilton & Zanna, 2008).

Aversive racism theory can provide guidance as to how ethnic studies courses should be evaluated and designed. Ethnic studies courses need to reduce both explicit and implicit racial bias to be effective. If courses only reduce explicit bias and not implicit bias, then it may not reduce incidents of aversive racism. Research has shown explicit racial bias has been effectively reduced by educational (Dovidio, Kawakami & Gaertner, 2000; Dovidio & Gaertner, 2004; Stephan & Stephan, 2001) and intergroup contact interventions (Pettigrew & Tropp, 2006; Pettigrew & Tropp, 2008; Utsey, Ponterotto, & Porter, 2008). Interracial contact has also been effective in reducing implicit bias (Aberson, Shoemaker & Tomolillo, 2004; Dasgupta & Rivera, 2008; Henry & Hardin, 2006; Tam, Hewstone, Harwood, Voci, & Kenworthy, 2006; Turner, Hewstone, & Voci, 2007; Vezzali & Giovannini, 2009).

### **Internalized Racism**

Internalized racism in people of color is "the conscious and unconscious acceptance of a racial hierarchy where whites are consistently ranked above people of color (Huber, Johnson & Kohli, 2006, p. 183)." Internalized racism has often been theorized to develop by exposure to racism and acculturation to a society with a dominant culture (David & Nadal, 2013; David, Schroeder, & Fernandez, 2019; Hipolito-Delgado, 2010). Internalized racism has been linked to poor academic performance, aggression and negative mental health outcomes (Graham, West, Martinez, & Roemer, 2016; Molina & James, 2016; Muzon & McLean, 2017).

Recommendations to reduce internalized racism including being more inclusive of diverse histories in curriculums, creating more inclusive environments and helping people be proud of their cultural identity (Johnson & Kohli, 2006; Kohli, 2014; Gibson, Rochat, Tone, & Baron,

2017; David, Schroeder, & Fernandez, 2019). These goals are similar to the presented goals of ethnic studies courses (Sleeter, 2011; Hu-DeHart 2004). Research on internalized racism can assist in understanding how ethnic studies courses can be used to reduce internalized bias in students of color.

### **Gender/Sex and Cultural Background Differences in Racial Bias**

Many studies have examined gender differences, race/ethnic differences and their interaction in understanding racial bias. Navarrette, McDonlad, Molina and Sidanius (2010) suggest racial attitudes are different for men and women due to socialization. For men and women of color, the internalization of racial bias may differ due to experiencing different types of discrimination along with the intersection of their race and gender (Assari, Moazen-Zadeh, Caldwell, & Zimmerman, 2017; Uzogara, 2018). It is possible that these differences might impact how racial bias is changed or perceived.

Research has consistently found that women report lower levels of explicit racial bias (Navarrette, McDonlad, Molina & Sidanius, 2010; Qualls, Cox and Schehr, 1992; Sawyerr, Strauss and Yan, 2004) compared to men. Men and European American people, particularly European American men, have higher levels of both explicit and implicit bias (Assari, 2018; Sabin, Nosek, Greenwald & Rivara, 2009; Nosek, Banaji & Greenwald, 2002)

### **Racial Bias and Ethnic Studies Courses**

There is limited evidence to support the reduction of explicit racial bias as a result of taking an ethnic studies course (Astin, 1993; Brehm, 1998; Gurin, Dey, Hurtado & Gurin, 2002; Milem, 1994). The available research on ethnic studies courses, however, often use the same data-source (i.e. CIRP) and is based on cross-sectional data with one-item measures (Astin, 1993; Engberg, 2004; Gurin et al, 2002). Further support can be found on research of diversity

courses and the reduction of explicit bias. A meta-analysis and numerous studies have suggested that enrollment in race-based diversity courses can be effective in reducing explicit bias (Bowman, 2010b; Case, 2007; Chang, 2002; Denson, 2009; Henderson-King & Kaleta, 2000; Hogan & Mallott, 2005; Kernahan & Davis, 2010; Probst, 2003). No studies have examined the relationship between ethnic studies courses and the reduction of implicit racial bias. One study was supported the reduction of implicit racial bias after enrolling in an undergraduate diversity course (Rudman, Ashmore & Gary, 2001).

### **Reducing Racial Bias in Classrooms**

Researchers have suggested two pedagogical approaches to reducing racial bias: “enlightenment” and “encounter” approaches. (Dovidio, Gaertner, Stewart, Esses, ten Vergert & Hodson, 2004; Nagda, Kim & Truelove, 2004; Lopez, Gurin & Nagda, 1998). The enlightenment approach focuses on building students’ knowledge about other cultural groups and racism (Dovidio et al., 2004; Nagda, 2006). The enlightenment approach is defined by traditional classroom components including lectures and readings. Diversity courses, including ethnic studies courses, are more likely to use enlightenment methods to reduce bias (Dovidio et al, 2004). Encounter approaches focuses on producing a change in racial bias by encouraging contact and discussion between students (Dovidio et al, 2004; Nagda, 2006) based on interracial contact (Allport, 1957). Encounter approaches might be better at reducing implicit bias based on the strong empirical support of intergroup contact's influence on racial bias (Dovidio & Gaertner, 2004; Gaertner & Dovidio, 2005; Pearson, Dovidio & Gaertner, 2009). However, online/distance courses may not be able to effective use encounter approaches to reduce implicit bias.

### **Present Study**

The purpose of my study was to examine the role of ethnic studies in reducing explicit and implicit bias. This study was designed to expand the available research of ethnic studies courses' usefulness to reduce explicit bias and be the first to examine implicit bias in ethnic studies courses.

The study also aimed to examine demographic variable (person of color demography and sex) differences in explicit and implicit bias along with seeing how these demographic variables may moderate the reduction of explicit and implicit bias. I also examined if there was a difference in implicit racial bias across the semester when comparing online courses to face-to-face courses.

## CHAPTER 2. LITERTURE REVIEW

The Office for Civil Rights (2016) in the U.S. Department of Education reported 198 received complaints of racial harassment on college campuses. This is a significant increase beyond the 96 reported complaints in 2009. Garcia and Johnston-Guerrero (2015) found 205 incidences of racially based incidents on college campuses based on an analysis of news reports between 2005 and 2010. In general, research findings suggest that experiences of racism and discrimination are common for students of color (Cabrera & Nora, 1994, Cokley et al., 2017; Hwang & Goto, 2008; Juang, Ittel, Hoferichter & Gallarin, 2016; McCabe, 2009; Rankin & Reason, 2005; Solorzano, Ceja, & Yosso, 2000).

Reducing incidents of prejudice on college campuses impacts the lives of many students of color. Researchers have provided evidence that incidents of discrimination impact the general mental health of students of color (Hwang & Goto, 2008; Nadal, Griffin, Wong, Hamit & Rasmus, 2014; Nadal, Wong, Sriken, Griffin & Fujii-Doe, 2015), including depressive symptoms (Cokley et al., 2017; Donovan, Galban, Grace, Bennett & Felicié, 2013; Hwang & Goto, 2008; Prelow, Mosher, & Bowman, 2006); anxiety symptoms (Cokley et al., 2017; Hwang & Goto, 2008); self-esteem (Nadal, Wong, Griffin, Davidoff, & Sriken, 2014); suicidal ideation (Hwang & Goto, 2008); life satisfaction (Prelow et al, 2006); adjustment to college (Nora and Cabrera, 1996); experiencing 'imposter' syndrome (Cokley et al., 2017); and, reduction of social support (Prelow et al, 2006). Cabrera and Nora (1994) found that students of color experienced negative racial campus climates, prejudices from faculty/staff, and discrimination in classrooms. These negative classroom experiences of racial discrimination predicted alienation in African American, Asian-American and Latinx-American students.

Researchers have charged institutions of higher education with the dual purpose of creating culturally inclusive environments (Guo & Jamal, 2007; Harper & Hurtado, 2007; Quaye & Harper, 2007) and creating civilly responsible citizens prepared to handle a diverse workforce and world (Bowman, 2011; Jayakumar, 2008). Since the civil rights movement of the 1960s, universities have attempted to integrate diversity in the higher education system through numerous methods, including changing the curriculum, creating multicultural centers, policy changes, changes in hiring of staff/faculty procedures, changes in admission policies, implementing mentoring/support programs, advising programming for students of color and trainings on diversity/inclusion for students, faculty and staff (Chang, 2002; Guo & Jamal, 2007; Harper & Hurtado, 2007; Hurtado, Clayton-Pedersen, Allen, & Milem, 1998; Levine & Cureton, 1992; Patton, 2010). Despite these efforts, students still experience negative campus climates related to race and discrimination (Harper & Hurtado, 2007). One of the ways universities have attempted to meet their diversity-related goals is to expand their curriculum to be inclusive by the addition of ethnic studies types of diversity courses (Bataille, Carranza, & Lisa, 1996; Gurin, Dey, Hurtado & Gurin, 2002; Harper & Hurtado, 2007; Hoang, 2012).

### **Ethnic Studies**

Ethnic studies courses or academic programs are defined pedagogy that “[center] on the knowledge and perspectives of an ethnic or racial group, reflecting narratives and points of view rooted in that group’s lived experiences and intellectual scholarship (Sleeter, 2011, p. vii).” Ethnic studies developed as a reaction to the dominant Euro-centric perspectives throughout historical and cultural academic curriculum (Hoang, 2012, Sleeter, 2011). Ethnic studies have traditionally focused on programs integrating the experiences of African Americans, Asian Americans, Native Americans and Latinx Americans (Hu-DeHart, 2004; Hoang, 2012, Sleeter,

2011), although they can also be inclusive of multi-ethnic programs and programs that focus on the experience of other ethnic groups in the United States. Common goals of ethnic studies courses include: 1) learning about the effect of U.S. colonialization on people of color; 2) learning about the perspective, history and culture of people of color in the United States; 3) understanding the concept of racism including institutionalized racism; and, 4) learning how racism has affected people of color's experience (Sleeter, 2011; Hu-DeHart 2004). Ethnic studies courses and departments are often interdisciplinary, integrating research and theories from multiple fields including psychology, sociology and history (Banks, 2009; Berry, 1990; Le Espiritu, 1999)

Ethnic studies, as a field in higher education, started in the late 60s as a result of student-led protests (Hu-DeHart, 2004; Sleeter, 2011; Guo & Jamal, 2007). Ethnic-based student groups at San Francisco State College, inspired by the civil rights movement, formed a coalition to strike to increase the representation of students of color in the curriculum (Hoang, 2012; Lye, 2010). The strike lasted 5 months and resulted in the formation of the College of Ethnic Studies and the establishment of four new departments: Asian American Studies, Black Studies (currently Africana Studies), La Raza Studies (currently Latina/Latino Studies) and American Indian Studies (College of Ethnic Studies, n.d.; Hoang, 2012). The following year, student-led strikes followed at UC Berkeley and UC Santa Barbara leading to the establishment of similar departments before expanding to universities across the United States (Hu-DeHart, 2004). The larger multicultural education movement aimed to "elimination of prejudice and discrimination in the education system" (Guo & Jamal, 2007, p.37) According to a survey in 1991, at least 40% of universities offered courses in an area of ethnic studies (Levine, & Cureton, 1992). As of

2004, there are over 700 ethnic studies programs and departments in US universities and colleges (Hu-DeHart, 2004).

Ethnic studies curricula were originally designed to help students of color have their experiences reflected in higher education (Hoang, 2012, Sleeter, 2011). The intended audience for this curriculum has expanded beyond this initial purpose. Ethnic studies courses, designed for students of all backgrounds, now aim for students to learn about a specific group while also changing attitudes on race and racism (Sleeter, 2011). Ethnic studies course can help expose students, particularly European American students, to ideas of systematic oppression and racism (Sleeter, 2011) and help prepare them to effectively function in a multicultural society (Hoang, 2012). Sleeter's (2011) review of ethnic studies courses reflects positive outcomes, such as raising consciousness and more complex thinking, for both students of color and European American students.

Students often take college-level ethnic studies courses as part of their required diversity course requirements (Sleeter, 2011). Many universities have required diversity courses as part of students' overall liberal learning requirement (Chang, 2002; Humphreys, 1997). These classes have multiple goals, including increasing civic responsibility, increasing awareness of others, and reducing racial prejudice (Chang, 2002; Hogan & Mallott, 2005). Based on a survey in 2000, conducted by Association of American Colleges and Universities, 54% of colleges and universities have a diversity course requirement (Humphreys, 2000). The results of the survey also found that this number was rising with another 8% of institutions in the process of developing the requirement. Most higher education institutions reported a model of providing students with multiple pre-selected course options to fulfill the requirement (Levine, & Cureton, 1992).



Although ethnic studies courses are considered to be diversity courses (Sleeter, 2011), diversity courses are considered to be more inclusive of courses that focus on other aspects of culture or identity (Chang, 2002). Diversity courses may include courses such as women studies courses or courses on ability status. Ethnic studies courses focus on the experience of one particular cultural group (e.g. "Introduction to Latino Studies") while other race-based diversity courses may be less focused on a particular group and approach race broadly (e.g. "Psychology of Racism" or "Prejudice and Conflict").

Iowa State University (ISU), like many universities, provides guidelines and stated learning objectives of courses that meet their diversity graduation requirement. Stated learning objectives include that students will be able to "critically analyze their perceptions and assumptions about diversity-related issues; analyze individual and institutional forms of discrimination; analyze the perspectives of groups and individuals affected by discrimination; and, analyze how cultural diversity and cooperation among social groups affect U.S. society" (Iowa State University Faculty Senate Curriculum Committee, 2009). These goals reflect the general goals of ethnic studies courses (cf. Sleeter, 2011; Hu-DeHart 2004). The stated goals for ISU go beyond learning about another culture and also include "producing a more transformative change in the person about their views of different diversity topics" (c.f. Chang, 2002). The use of ethnic studies courses as required courses means some students enroll in the courses to fulfill a requirement instead of possessing an interest in the material. As a requirement with the goals of teaching about and reducing prejudice, ethnic studies courses have the potential to have a more wide-reaching impact on the campus community.

Ethnic studies courses in higher education have a wide range of support empirical for positive outcomes (Slater, 2011). Researchers have found taking courses related to race or

ethnicity had a positive impact on students' well-being, commitment to promote racial understanding, interest in engaging with topics of diversity, social action engagement, civic engagement, academic self-confidence, social agency and disposition towards critical thinking (Bowman, 2010a; Gurin, Lopez & Nagda, 2004; Lopez, Gurin & Nagda, 1998; Milem, 1994; Nelson Laird, Engberg & Hurtado, 2005; Nelson Laird, 2005). Mayhew, Grunwald and Dey (2005) found that students judge the value a university places on diversity based on the students' perceived willingness of faculty to integrate multiple perspectives from different cultures into their courses. This finding suggests the experience of talking about diversity in college classroom can have an impact on the college experience. Halagao (2004) and Vasquez (2005) reported that students of color were more aware of their culture, more confident, had a strong ethnic identity, and felt accepted in the higher education environment after taking a course reflecting their cultural background. Halagao (2010) found that the knowledge of racism and cultural knowledge gained in an ethnic study course were present in students 10 years after completing the courses. Vasquez (2005) reported that, after taking part in an Latinx ethnic studies course, non-Latinx American students reported that they became aware of shared and difference experiences between Latinx-Americans and themselves. In addition, European American students in the same course reported experiencing having to relate to readings and others' lived experiences different from themselves for the first time. Ethnic studies courses appear to have an impact on student's overall well-being; academic experience; and views on diversity and race. However, few studies have examined the role of ethnic studies courses on reducing racial bias (Astin, 1993; Milem, 1994; Gurin Day, Hurtado & Gurin, 2002; Brehm, 1998). As well, studies doing so often lack a theoretical grounding concerning racial bias and were limited in their methods (e.g., only examining one course; using secondary data sources (i.e. Cooperative Institutional Research

Program; Eagan, Stolzenberg, Ramirez, Aragon, Suchard, & Hurtado, 2014) not originally designed to examining the effectiveness of ethnic studies courses).

## **Theories of Racial Bias**

### **Aversive Racism**

The theory of aversive racism (Gaertner & Dovidio, 1986) provides a foundation for understanding racial bias in the context of college classrooms and provides ideal methods/goals for reducing racial bias. The theory is based on a concept first described by Kovel (1970), to explain the difference between expressed thoughts/beliefs and actual behavior. The theory has been updated to be inclusive of more current research and integrate the concepts of explicit and implicit racial bias (Dovidio & Gaertner, 2004; Dovidio, Gaertner & Pearson, 2016; Pearson, Dovidio & Gaertner, 2009) to explain the forces behind cognitive attitudes.

### **Implicit and Explicit Racial Bias**

Aversive racism theory holds that implicit and explicit bias are independent constructs that can interact with each other but are independent of each other (Dovidio, Kawakami & Beach, 2001; Dovidio & Gaertner, 2004). Explicit racial attitudes have traditionally been measured by self-report measures such as the *Attitudes Towards Blacks* scale (Brigham, 1993), the *Prejudice Index* scale (Bobo & Kluegel, 1993), the *Racial Attitudes* scale (Sidanius, Pratto, Martin & Stallworth, 1991), the *Modern Racism* scale (McConahay, 1986), and the *Symbolic Racism* scale (Henry & Sears, 2002). More subtle measures of racial bias, such as *Modern Racism* scale, are considered to be measures of explicit bias due to the influence of conscious attitudes and intentional responses (Axl, 2017; Dovidio & Gaertner, 2004; Dovidio, Kawalami & Gaertner, 2002). Subtle measures of racial bias are commonly used as measures of explicit bias (Axl, 2017).

Implicit bias are attitudes are based on automatic cognitive processes and associations (Greenwald & Krieger, 2006; Pearson, Dovidio & Gaertner, 2009). Implicit attitudes are activated by the “mere presence (actual or symbolic) of the attitude object[s]” (Pearson, Dovidio & Gaertner, 2009, p.4). Compared to explicit biases, implicit biases lack the intention and influence of conscious beliefs. Implicit bias is traditionally measured using response-latency tasks such as the *Implicit Association Task* (Greenwald, McGhee & Schwartz, 1998).

Hofmann, Gawronski, Gschwendner and Le, Schmitt (2005) conducted a meta-analysis of studies that examined the relationship of implicit and explicit attitudes, including but not limited to, measurements of racial bias. They found an average correlation of .24 from 136 studies between implicit and explicit measures averaging 517 correlations among 12,289 participants. They found the correlation with implicit measures for scale measurements (such as Modern Racism Scale) of explicit attitudes to have a lower correlation ( $\rho = .18$ ) than general average correlation of implicit and explicit attitudes. They suggest that implicit and explicit attitudes are separate constructs of attitudes with a small but meaningful relation. Greenwald, Poehlman, Uhlmann and Banaji (2009) similarly found an average correlation of .21 in a meta-analysis of 122 studies between implicit and explicit measures including but not limited to, measurements of racial bias. They averaged 184 correlations among 14,900 subjects. Specifically, they found that implicit and explicit measures of racial bias had an average correlation of .12. Another meta-analysis of explicit and implicit racial bias found an average correlation of .24 (Dovidio et al., 2001).

Findings indicate that people have dual attitudes, where people’s explicit and implicit attitudes are independent and may differ from their implicit thoughts (Dovidio et. al, 2001; Son Hing et. al, 2005). Fazio, Williams and Sanbonmatsu’s (1990) unpublished study found weak

correlations between implicit and explicit associations for socially sensitive subjects ( $r = -.11$ ), such as beliefs about race, suggesting that dual attitudes for socially sensitive subjects are common (as summarized in Dovidio et al., 2001). By comparison, non-socially sensitive subjects had a stronger correlation ( $r = .63$ ).

Given that explicit and implicit racial bias are independent, reduction of each variable functions independently too. Dovidio and Gaertner (2000) examined the reduction of explicit racial bias and discrimination in hiring decisions by comparing a sample of college students in 1989 and in 1999. They found that although self-reported racial bias had reduced over time, the amount of racial discrimination in hiring decision stated consistent. Lower levels of self-reported explicit attitudes did not predict lower levels of implicit-based discrimination actions.

The independence of the two variables is also important to note given implicit and explicit attitudes predict different behaviors and actions. Wilson, Lindsey and Schooler (2000) proposed that explicit racial bias predicted controlled behavior from participants while implicit racial bias predicted uncontrollable behavior. Explicit racial bias has been linked to predicting people's verbal behavior (Dovidio, Kawakami & Gaertner, 2002) and self-reported behavior in other ratings scales (Fazio, Jackson, Dunton & Williams, 1995) such as rating attractiveness of faces or rating responsibility for race-related riots. Implicit bias has been linked to predicting nonverbal behavior such as blinking and eye contact (Word, Zanna & Cooper, 1974; McConnell & Leibold, 2001).

Greenwald et al.'s (2009) meta-analysis on implicit and explicit behavior specifically examined the predictive potential of explicit and implicit racial bias on discrimination behavior. Using 32 samples that examine the impact of both explicit and implicit racial bias, they found that implicit racial bias ( $r = .24$ ) was a better predictor of discrimination than explicit racial bias

( $r = .12$ ). In their meta-analysis, Greenwald et al. asserted that both implicit and explicit racial bias provided incremental validity suggesting each provided independent variance in predicting discrimination behavior. In other words, implicit and explicit racial are better at predicting discrimination behavior when considered together than each individual concept independently.

Explicit and implicit racial attitudes also interact with each other to cause behavior (Dovidio & Gaertner, 2004; Gaertner & Dovidio, 1986). Gaertner and Dovidio (1986) described three possible combinations of conscious and subconscious beliefs. Two of the combinations occur when implicit and explicit beliefs are consistent with each other. Overt racism occurs when implicit and explicit thoughts reflect consistent negative bias against a racial group or groups. Non-racism occurs when implicit and explicit thoughts reflect a lack of both negative implicit and explicit bias against a racial group or groups. Gaertner and Dovidio referred to aversive racism when people exhibit non-biased explicit attitudes with biased implicit attitudes. The result is discomfort and uneasiness around those of another race (Dovidio & Gaertner, 2004). Aversive racists may unconsciously react and behave in inconsistent ways from their conscious beliefs (Dovidio & Gaertner, 2004; Son Hing, Chung-Yan, Grunfeld, Robichaud & Zanna, 2005).

Dovidio and Gaertner (2004) suggest that most people in the United States, particularly European Americans, would be considered to have aversive racism. US residents, particularly European Americans, possess conscious beliefs supporting the convictions of fairness, justice, racial equality, and anti-discrimination (Bobo, 2001). As a result, implicit attitudes get expressed in more subtle and indirect ways (Dovidio & Gaertner, 2004; Gaertner & Dovidio, 1986). Dovidio, Kawakami and Gaertner (2000) describe aversive racism as competing forces between learned values of anti-racism and normative, in-group process biases against groups of which a

person is not a member. Although the theory of aversive racism was created to explain behavior of European Americans towards African Americans, the theory has been expanded to be inclusive of the behavior of European Americans towards Latinx Americans and Asian Americans (Son Hing et al, 2005; Dovidio, Gaertner, Anastasio & Sanitioso, 1992). To date, no study appears to have been done on the applicability of aversive racism to Native Americans.

### **Empirical Support for Aversive Racism**

There has been a wide range of empirical support for different aspects of aversive racism. Gaertner (1973) found that politically liberal individuals, who endorsed anti-racist views, were more likely to help African American callers compared to politically conservative individuals. However, self-identified liberals also more likely to hang up on African American callers before politically liberal individuals were asked for their assistance suggesting that liberal participants were more likely to avoid an interracial interaction. Other researchers found that participants were more likely to support affirmative action when it was phrased as a universal value compared to being phrased as effecting the participants' day-to-day life (Dovidio & Gaertner, 1996; Murrell, Dietz-Uhler, Dovidio, Gaertner & Drout, 1994). These results suggest that people are more likely to endorse overarching anti-racist beliefs but less likely to be consistent when those beliefs interact with personal life.

Aversive racism can be helpful in predicting behavior (Gaertner & Dovidio, 2005). People that display a pattern of aversive racism tend to have an inconsistent pattern of discrimination (Dovidio & Gaertner, 2004; Gaertner & Dovidio, 2005). Dovidio and Gaertner, (2004) suggest that people rely on either explicit or implicit attitudes depending on the circumstances of the situation. Dovidio and Gaertner suggest that people rely on explicit attitudes are used when the situation is clearly about race (such as a conversation about hate

crimes) but rely on implicit attitudes are used when the situation is not clearly about race (Dovidio & Gaertner, 2004; Pearson, Dovidio & Pratto, 2007; Son Hing et al, 2005). In other words, people do not want to be defined as racist but may act on racial bias if they are not able to consciously connect the situation with race. For example, there have been a few studies (Dovidio & Gaertner, 2000; Son Hing, Chung-Yan, Hamilton & Zanna, 2008) on aversive racism and job hiring discrimination. Dovidio and Gaertner (2000) found that participants did not discriminate on job hiring decisions when applications were clearly strong or poor fits for the job. Participants equally decided to hire African American and European American when they have the same strong resumes and did not decide to hire participants given equally weak resumes. However, participants were more likely to discriminate against African American participants when qualifications for the presented job were unclear, by being more likely to hire European American candidates with the same unclear qualifications. These results are consistent with the idea that people are more likely to discriminate when the situation is not clearly about race. This study was replicated with other populations of color, including Asian Americans and Latinx Americans (Son Hing, Chung-Yan, Hamilton & Zanna, 2008; Person, Dovidio & Gaertner, 2009). These findings have also been replicated with similar results using college admissions instead of job hiring decisions (Hodson, Dovidio, & Gaertner, 2002).

Aversive racism creates a situation where people may consciously believe that they hold anti-racist attitudes, but their behavior may not correlate with these beliefs. There has been empirical support for the negative consequences of having inconsistent explicit and implicit attitudes. Dovidio & Gaertner (2004) found that people showing patterns of aversive racism had a higher tendency to avoid interracial interactions. European Americans showing patterns of



aversive racism increased anxiety and mistrust in African American participants in interracial interactions (Hyers & Swim, 1998; Shelton, 2000).

Researchers found that explicit racial bias was predictive of European Americans' verbal behavior while implicit racial bias predicted European Americans' nonverbal behavior (Dividio, Kawakami & Gaertner, 2002; Dividio, Gaertner, Kawakami & Hodson, 2002). In these studies, people of color and European Americans rated the success of the interracial interactions on different variables. African Americans rated the interracial interactions based on non-verbal factors while European Americans rated the same interracial interactions based on verbal behavior. This is important to note because a successful interaction for European Americans may not be considered successful by African Americans.

Limited research may suggest that people of color may prefer overt racism to inconsistent racism found in aversive racism (Dividio, Gaertner, Kawakami & Hodson, 2002). African American participants reported higher levels of trust and efficiency in a problem-solving task with those people who were overtly prejudiced as compared to those who showed inconsistent explicit and implicit bias (Dividio, Gaertner, Kawakami & Hodson, 2002). Participants rated those with consistently low explicit and implicit bias as the mostly trustworthy and efficient in a problem-solving task.

Saucier, Miller and Doucet (2005) conducted a meta-analysis on discrimination patterns in helping behaviors. The meta-analysis included 48 hypothesis tests from 31 journal articles. In accordance with predictions based on aversive racism, they found that participants in studies were more likely to show behaviors of race-based discrimination when the situation "afforded individuals more opportunities to justify withholding help with non racist explanations (p.13)." Participants were less likely to help African Americans compared to European Americans when

helping required more effort and was riskier for the helper. Saucier et al. also found that longer levels of physical distance predicted higher levels of discrimination. They found that people were much more likely to discriminate in emergency situations where they may have not been able to fully process their decision. Saucier et al. also found that rate of behavioral discrimination did not decrease over the decades of the studies included in their meta-analysis although other studies (Dovidio & Gaertner, 2000; McConahay, Hardee, & Batts, 1981) have suggested that self-report measures of racism have decreased over time.

Similar findings were found in legal decision-making studies. Participants more likely to make racially bias decisions in legal situations such as judging responsibility of violent actions or deciding guilt when the decision can be rationalized based on nonracial reasons (Johnson, Jackson & Gatto, 1995; Knight, Guiliano & Sanchez-Ross, 2001; Sommers & Ellsworth, 2000). However, the bias is not present when participants are told that racial bias may play a factor before the decision-making process. In other words, participants were more likely to make bias-free decisions when they knew that their choice could possibly reflect racial bias.

### **Aversive Racism and Ethnic Studies Courses**

Aversive Racism theory can provide guidance as to how ethnic studies courses should be evaluated and designed. One of the primary goals for ethnic studies is to reduce prejudice and bias in students (Sleeter, 2011; Hu-DeHart 2004), particularly when the course is also functioning as a required diversity course (Sleeter, 2011). If the goal of ethnic studies courses is to reduce racial bias, then aversive racism theory suggests that courses must be designed that reduce both explicit and implicit bias. If a course only focused on the reduction of explicit bias, and not implicit bias, then aversive racism may be created, remain unaffected or reinforced as a byproduct of this course where students will have improved explicit thoughts but may function

behaviorally the same based on the implicit thoughts. Research suggests that increasing more situations of aversive racism may actually worsen the environment for people of color, including avoidance of interactions and create unclear expectation of others (Dovidio, Kawakami & Gaertner, 2002; Dovidio & Gaertner, 2004; Dovidio, Gaertner, Kawakami & Hodson, 2002; Hyers & Swim, 1998; Shelton, 2000). Increased number of people with aversive racism may create a more negative campus climate that conflicts with the stated goals of college campuses and ethnic studies departments.

### **Internalized Racism**

The experience of people of color having negative explicit and implicit bias about themselves is often called internalized racism. Huber, Johnson and Kohli (2006) describe internalized racism as "the conscious and unconscious acceptance of a racial hierarchy where whites are consistently ranked above people of color (p. 183)." For people of color, it is generally not seen as self-hatred but the internalization of dominant culture beliefs. David, Schroeder and Fernandez (2019) reflected internalized racism would not exist without the larger cultural existence of racism. While the concept has existed since the 1960s, there is limited research conducted about internalized racism (David, Schroeder, & Fernandez, 2019) including with college students (Hipolito-Delgado, 2010). Internalized racism has often been theorized to develop by exposure to racism and acculturation to a society with a dominant culture (David & Nadal, 2013; David, Schroeder, & Fernandez, 2019; Hipolito-Delgado, 2010). For example, in a study of Latinx students, higher reports of internalized racism were linked to perceived experiences of racism, U.S. cultural competency, and exposure to racism in the media. Interviews with second generation Asian Americans suggested that pressures to assimilate into dominant culture lead to experiences of internalized racism (Pyke & Dang, 2003). While studies

have shown that people of color tend to have lower levels of explicit and implicit racial bias (Nosek, Banaji & Greenwald, 2002), it is important to remember that this is often based on a reported mean. For example, Sabin et al., (2009) found African American doctors on average had low implicit bias ( $M = 0.05$ ) but the standard deviation was .42 which suggests a portion of had high implicit bias in the sample.

Internalized racism has been linked to poor academic performance (Johnson & Kohli, 2006; Robertson, 2018), aggression (Bryant, 2009) and negative mental health outcomes (Graham, West, Martinez, & Roemer, 2016; Molina & James, 2016; Muzon & McLean, 2017). One study found that explicit beliefs about race and implicit black identification predicted beliefs about the role of the government to assist people of color (Orey, Cramer & Price, 2013).

In addition to aversive racism, research on internalized racism can assist in understanding how ethnic studies courses can be used to reduce prejudice and bias in students of color. The use of the course as a method to reduce internalized racism can help reduce negative outcomes for these students.

### **Gender/Sex and Cultural Impact on Racial Bias**

Many studies have examined gender differences, race/ethnic differences and their interaction in understanding racial bias. Navarrette et al., (2010) suggest racial attitudes may be different for men and women due to socialization and different experiences. They found that aggression scores and scores on social dominance attitude measures were related to European American men's scores of explicit racial bias but not European American women's. They also found that women's fear of violence from men was related to explicit racial bias suggested a gender socialization may contribute to bias. For men of color and women of color, that the internalization of racial bias may differ due to experiencing different types of discrimination

along with the intersection of their race and gender including different perceptions and stereotypes. Uzogara (2018) found that racial discrimination based on appearance and skin tone increased beliefs about internalized oppression for Latinx women but not men. For African American young adults, there were gender differences in how past discrimination impacted their mental health (Assari, Moazen-Zadeh, Caldwell, & Zimmerman, 2017).

Women consistently report lower levels of explicit racial bias (Navarrette, McDonlad, Molina & Sidanius, 2010; Qualls, Cox and Schehr, 1992; Sawyerr, Strauss and Yan, 2004). Neville, Poteat, Lewis and Spanierman (2014) found that European American women had lower scores on a color-blind racial ideology measure and a greater decrease color-blind racial ideology over the 4 years of college compared to European American men. Cundiff and Komarraju (2008) found that women, compared to men, reported higher scores on measures of ethnocultural empathy or the ability to have empathy for those in other cultures. They, however, found no differences on empathy for different cultural backgrounds. Sawyerr, Strauss and Yan (2004) examined race and gender differences on attitudes related to diversity. They found that gender was related to differences in appreciation for other cultures, having contact with diverse groups and comfort with differences while race was related to comfort with differences and overall orientation to diversity.

Nosek, Banaji and Greenwald (2002) found gender and race differences in racial bias where men and European American people had higher levels of both explicit and implicit bias. Sabin et al, (2009) compared physicians' implicit and explicit racial attitudes by race and gender. They found that women generally had lower levels of implicit bias compared to men. They found that European American doctors had the highest levels of implicit racial bias ( $M = 0.44$ ) while African American doctors on average had low implicit bias ( $M = 0.05$ ). They found that other

racial groups had significant pro-European American implicit attitudes but lower than European American doctors. When looking at the interaction of race and gender, European American male doctors had the highest level of racial bias while female African American doctors had the lowest. When looking at explicit racial bias, African American people had the lowest level of pro-European American explicit racial bias ( $M = -0.75$ ) while European American doctors had the highest levels of explicit racial bias ( $M = 0.48$ ). Latinx female doctors reported the low explicit racial bias with no preference of European Americans ( $M = 0.02$ ). Assari (2018) looked at the interaction between race and gender on implicit racial bias using the Implicit Association Test. His sample included 44,442 European Americans and African Americans participants. He found that a statistically significant interaction between race and gender when examining implicit bias scores ( $b = 0.05$ ; 95% CI[.04-.07]) where European Americans had the highest scores of anti-black implicit bias. Based on the research of gender and race differences, it is important to consider these factors when examining implicit and explicit racial bias.

### **Reduction of Racial Bias**

Due to their independence, the methods of reduction for explicit and implicit racial bias must be considered separately and it cannot be assumed that a method that reduces one type of bias will work on the other (Dovidio & Gaertner, 2000). Aversive racism theory provides guidance on methods of racial bias reduction (Dovidio & Gaertner, 2004; Gaertner & Dovidio, 2005; Pearson, Dovidio & Gaertner, 2009). Overall, research has suggested that changes to explicit racial bias tend to happen more quickly, and with less effort from person while changing implicit racial bias takes more time and effort (Dovidio, Kawakami, & Beach, 2001). Researchers have mostly focused on the reduction of explicit racial bias by using self-report measures (Wilson, Lindsey and Schooler, 2000). The focus on explicit racial bias by

investigators might suggest that racial bias is a target that can be changed with less effort than may actually be required.

### **Reduction of Explicit Racial Bias**

Educational strategies aimed at increasing knowledge are the most common method used in research as a method to reduce explicit racial bias (Dovidio, Kawakami & Gaertner, 2000; Dovidio & Gaertner, 2004; Stephan & Stephan, 2001). Goals of reduction interventions often include increasing students' cultural knowledge and appreciation of other racial groups (Dovidio et al, 2000). Other effective interventions aim at changing personal attitudes and societal norms about prejudice and racism including emphasizing the importance of anti-racist views or educating students about modern expressions of racism. (Dovidio, Kawakami & Gaertner, 2000; Stephan & Stephan, 2001). Other research has provided evidence of the use of media, providing anti-stereotyping examples, and persuasive communication (Amodio & Devine, 2005; Dovidio, Kawakami and Gaertner, 2000; Sritharan & Gawronski, 2010)

Another common strategy of reducing explicit racial bias is through intergroup contact (Utsey, Ponterotto, & Porter, 2008). Intergroup contact is defined as “interpersonal contact with diverse others under particular conditions [that] will attenuate prejudice and promote intergroup harmony” (Utsey, Ponterotto, & Porter, 2008, p. 342). Intergroup contact has received a considerable amount of empirical support. Pettigrew and Tropp (2006) conducted a meta-analysis of the effectiveness of intergroup contact on the reduction of racial bias, using 713 samples from 515 studies. Their results suggested a mean correlation of  $-.23$  between intergroup contact and racial bias. The correlation was strongest when participants did not choose to engage in intergroup contact ( $r = -.28$ ). Intergroup contact, based on Allport's (1954) contact hypothesis, holds that a reduction of racial bias will be most effective under the following four conditions: 1)

equal status between the groups in the situation; 2) common goals; 3) intergroup cooperation; and 4) the support of authorities or law. (Pettigrew & Tropp, 2006). Pettigrew and Tropp found that although the presence of the four optimal conditions had stronger effects ( $r = -.29$ ), the presence of all four optimal conditions was not necessary for the contact to reduce bias ( $r = -.20$ ). A follow up meta-analysis found intergroup contact to reduce explicit bias was affected by increasing knowledge about non-membered groups, reducing anxiety about contact and helping others take perspective and gain empathy towards non-membered groups (Pettigrew & Tropp, 2008). However, increasing knowledge appeared to have less of an impact as compared to the methods of reducing anxiety and increasing ability to take others' perspectives.

Bowman and Park (2015) compared the frequency of cross-racial interactions to number of close interracial relationships. They found cross-racial interactions were more predictive of self-reported ability to get along with people from other races, beliefs that people of other races are hardworking and situational attributions for life outcomes of people. Cross-racial interactions appeared to have a stronger impact on African American, Latinx American and Asian American. For European Americans, interracial interactions was only related to situational attributions for life outcomes of people (e.g. "Many Blacks have only themselves to blame for not doing better in life", p. 607).

There have been many recommendations to reduce internalized racism including changing the curriculum to be inclusive of diverse histories and struggles (Johnson & Kohli, 2006; Kohli, 2014), and creating more inclusive environments and helping people be proud of their cultural identity (Gibson, Roachat, Tone, & Baron, 2017; David, Schroeder, & Fernandez, 2019). One study found African American male college students in predominantly White institutions did not show evidence of internalized racism due to support from same-race peers



suggesting positive exposures to other people of color might be helpful (Harper, 2006). Experts recommend that students learning about their cultural background might reduce explicit bias (Bailey et al., 2014; Gibson et al., 2017; Hipolito-Delgado et al., 2014).

### **Reduction of Implicit Bias**

The reduction of implicit bias generally requires more energy and time by people compared to the reduction of explicit bias (Dovidio, Kawakami, & Beach, 2001; Wilson, Lindsey & Schooler, 2000). The reduction of implicit bias often takes practice and meaningful effort by the person with implicit bias to undo learned associations (Wyer & Hamilton, 1998).

In the aversive racism literature, four research-based strategies to reduce implicit bias have been suggested (Dovidio & Gaertner, 2004; Gaertner & Dovidio, 2005; Pearson, Dovidio & Gaertner, 2009). The first strategy is redefining in-group bias. In other words, helping people redefine their out-groups, such groups of color, as a sub-group of a larger group to which they already belong. Research has suggested that participants in research studies are less likely to automatically discriminate when they have something in common with people of color (Nier, Gaertner, Dovidio, Banker, & Ward, 2001). The “Common In-Group Identity” model of bias reduction, based on the idea of finding a common group identity, has received empirical support (see Gaertner et al., 2008 for review).

The second strategy is having individuals acknowledging and addressing their implicit biases. This strategy teaching involves teaching people the difference between implicit and explicit attitudes, having them practice self-regulation of their biased behavior, and unlearning their automatic associations (Pearson, Dovidio & Gaertner, 2009). Researchers have suggested that active practice can reduce implicit associations (Devine, Forscher, Austin & Cox, 2012;

Green et al., 2007; Kawakami, Dovidio, Moll, Hermsen, & Russin, 2000; Park, Glaser, & Knowles, 2008; Son Hing & Zanna, 2002).

The third strategy consists of controlling implicit bias through increasing other goals such as being egalitarian. Researchers suggest that having overarching goals and motivation that contradicts racism reduces implicit bias (Aarts, Gollwitzer, & Hassin, 2004; Moskowitz, Salomon, & Taylor, 2000; Sassenberg & Moskowitz, 2005).

The final strategy is intergroup contact. In addition to the reduction of explicit bias, there is considerable empirical support that intergroup contact also reduces implicit bias (Aberson, Shoemaker & Tomolillo, 2004; Dasgupta & Rivera, 2008; Henry & Hardin, 2006; Tam, Hewstone, Harwood, Voci, & Kenworthy, 2006; Turner, Hewstone, & Voci, 2007; Vezzali & Giovannini, 2009). Turner and Crisp (2010) found that even imagining intergroup contact can reduce implicit bias. Aberson and Haag (2007) found that actual contact predicted decrease in implicit bias but increasing knowledge about others and decreased intergroup anxiety did not.

### **Racial Bias & Ethnic Studies Courses**

#### **Explicit Bias & Ethnic Studies Courses**

There is limited evidence to support the reduction of explicit racial bias as a result of taking an ethnic studies course. The few studies that looked exclusively at the role of ethnic studies indicate the courses can affect beliefs about race and racism. Astin (1993) found that taking ethnic studies courses reduced the belief that racism was no longer a problem in the United States. Milem (1994) found that taking ethnic studies course predicted higher values toward helping promote racial understanding, a finding consistent for both those that enrolled in ethnic studies course as a requirement or an elective. Gurin, Dey, Hurtado and Gurin (2002) found that ethnic studies course enrollment was related to increased awareness of issues related

to diversity, and appreciation/acceptance of other groups for European, Asian and Latinx American students, but not African American students. Brehm (1998) found that ethnic studies courses were effective at reducing, but not eliminating, European American students' stereotyping of other groups. Engberg (2004) conducted a review of research, including non-published studies, on the impact of ethnic studies classes on racial biases. Overall, she found that ethnic studies courses have been helpful in promoting understating of other cultural groups. Using SEM-modeling, Bowman, Brandenberger, Hill and Lapsley (2011) found that taking an ethnic studies course predicted recognition of racism in senior year of college which then predicted recognition of racism in adulthood. While most studies examining the relationship between ethnic studies courses and racial biases found reductions of bias, these results should be examined with caution. As Engberg (2004) highlighted, many these studies rely on the same source of data: the Cooperative Institutional Research Program (CIRP) survey. The CIRP is a yearly national survey that samples students on a variety of questions related to their college experience (Astin, 1993; Gurin et al., 2002). Enrollment in ethnic studies courses ("number of ethnic studies course") and racial biases ("racism was no longer a problem) were both measured by one item each and asked retroactively (Astin, 1993; Engberg, 2004; Gurin et al, 2002). Because the CIRP was not designed to examine the effectiveness of ethnic studies courses, it is difficult to assess if the outcomes are due to participation in the course or a selection bias of people who take ethnic studies courses. Additionally, the CIRP tends to have a bias towards private universities and to have low participation (Engberg, 2004). Vogelgesang (2001) cited a participation rate of 22%.

## **Race-Related Diversity Courses**

Empirical support for the reduction of racial bias through enrollment in ethnic studies courses may be found in research on general diversity courses, that often include ethnic studies and other similar race-related courses. Denson (2009) conducted a meta-analysis on the effect sizes of curricular and co-curricular activities on racial bias from 27 studies. Curricular and cocurricular activities were defined as diversity and ethnic studies courses in addition to women's studies courses and diversity workshops. Overall, they found that the standardized mean difference effect size across the 27 studies was 0.48 suggesting that curricular and cocurricular activities are effective at reducing racial bias. The meta-analysis did not provide effect sizes for each type of intervention, instead combining all types of curricular and cocurricular activities. Denson found that although knowledge-based interventions impacted racial bias, the interventions that had an intergroup contact component had a higher reduction of racial bias compared with knowledge alone based on hierarchical linear modeling ( $\gamma = .27$ ). Racial bias was defined very broadly in this meta-analysis and was inclusive of attitudes, cognition, emotions, and behavior/discrimination.

Chang (2002) conducted one of the largest studies on the effects of diversity courses on the reduction of racial bias. He collected information from a diverse undergraduate student population that had a required diversity course requirement. Students had a choice of 25 university-approved courses that explicitly explored issues of diversity in the United States including ethnic studies and women studies courses. The study had a between subjects repeated measures design. The 25 courses were randomly divided into 13 pretreatment courses and 12 post-treatment groups. The Modern Racism Scale (MRS; McConahay, Hardee & Batts, 1981) was used to assess student beliefs on racism. The completion of the diversity course was

considered to be the treatment. They found that those students in the post-treatment group had significantly lower scores on the MRS suggesting that they had more favorable views towards African Americans. Those students who had taken a previous diversity course did not have a significant difference in scores after treatment and started with lower MRS scores (less bias) suggesting either students were limited in their ability to grow in diversity courses or further growth could not be assessed by the MRS.

Henderson-King and Kaleta (2000) studied the effects of a required course on race and ethnicity on racial bias at a large midwestern university. The researchers compared the students taking the required class on race and ethnicity to a control group of students not taking this course. They asked students to rate racial and ethnic groups from 0 (negative) to 100 (positive) and found that students in the control group reported lower ratings of Latinx and African Americans at the end of the semester. Those that were in the race/ethnicity course did not report any differences between the start and end of the semester. The authors suggested that the course created a buffer against the reduction of positive feelings towards social groups.

Case (2007) found that enrollment in psychology diversity courses increased awareness of white privilege and racism while also increasing support for affirmative action. Hogan and Mallott (2005) collected data from 250 students enrolled in diversity courses from a larger group of students in enrolled in psychology and sociology courses. They found that students in both types of these classes had lower prejudiced beliefs (as measured by the MRS) at the end of the course compared to the beginning of the class. Hogan and Mallott also found that students that reported a higher level of need for cognition, defined as “enjoyment from thinking and problem solving” (p. 119), resulted in lower levels of reported racial bias. They found a small correlation between social desirability and racist beliefs ( $r = .11$ ). Probst (2003) examined the effectiveness

of a “Cultural Diversity in Organizations” psychology course. She found improved attitudes toward people of color in the workplace and an increase of intercultural tolerance at the end of the course.

Kernahan and Davis’s (2010) study examined the role of a psychology of prejudice and racism course on race-based beliefs directly after completing the course and one year later. Students in the course had an increase in awareness of racial privilege, institutional discrimination, blatant racial issues and general awareness/understanding of others at the end of the course. This increase stayed stable or slightly decreased, depending on variable, at one year follow up after the course was completed. However, at one year follow up, students reported an increase in comfort with racial issues and interracial interaction that students did not report at the end of the diversity course. Rudman, Ashmore and Gary (2001) found that their “Prejudice and Conflict” course reduced racial bias as measured by the MRS.

Bowman (2010b) examined the impact of enrolling in multiple diversity courses. He found that taking one diversity course provided growth in students' interest in participating in diverse social and cultural activities. He found that taking two or more diversity course provides growth in students’ comfort with differences, relativistic appreciation of diversity, and diversity of contact. This effect appeared to be strongest with European American students. He concluded that students should take at least two diversity courses to fully be impacted by courses. This finding contradicts Chang (2002) who found that more than one course had no effect on racial bias. Bowman’s outcome was an appreciation and comfort with diverse groups while Chang’s outcome was more of a pure measure of racist beliefs. It is possible that while both measures examined racial beliefs, the small differences between the outcome measures resulted with contrasting results.

The research on diversity courses supports the notion that race-related courses can have some effect on racial beliefs. However, ethnic studies, when examined in isolation, may not have similar results. This is an empirical question that has not yet been answered. With the exception of Bowman (2010b) and Chang (2002), most of the studies on diversity courses have focus on a sole class. It is harder to generalize the applicability of these found effects to a wider range of classes. Additionally, no study has examined possible differences in explicit racial bias due to sex/gender and ethnicity/race.

All studies examining the relations between participation in ethnic studies courses and racial bias outcomes have examined outcomes at the end of the course. Research on short-term diversity workshops suggest that workshops are a common alternative and successful method of explicit racial bias reduction on college campuses (Bowman, Denson & Park, 2016; Denson, 2009; McCauley, Wright & Harris, 2000). Research has shown that engagement in race-related workshops in college can directly and indirectly predict adulthood outcomes including recognition of racism, personal growth orientation, community leadership, interracial socialization, volunteer work, perception of unequal opportunities and discussion of racial issues (Bowman, Brandenberger, Hill & Lapsley, 2011; Bowman, Denson & Park, 2016). Diversity workshops typically are about 2 hours (McCauley, Wright & Harris, 2000). The research on diversity workshops suggest that ethnic studies courses can have an impact earlier in the semester and might encourage growth throughout the semester.

### **Implicit Bias and Ethnic Study Courses**

After a comprehensive literature search, no studies were found examining the relationship between ethnic studies courses and implicit racial bias. I found only one study was when I expanded my search to include general undergraduate diversity courses. Rudman, Ashmore and

Gary (2001) examined the impact of their prejudice and conflict course on implicit bias. They found that students had reduced implicit bias scores, as measured by prejudice IAT that uses racially associated names, at the end of the semester. They found that these scores were independent of change of explicit racial bias.

Although these results are promising, there are a number of differences between this Rudman et al. study and examining the effectiveness of ethnic studies courses on reducing racial bias. Primary, there are a number of content differences in Rudman et al.'s prejudice/conflict course and most ethnic studies courses. The prejudice/conflict course specifically focused on students understanding racial conflict, tracking of bias, and awareness of their own prejudice. Ethnic studies courses may be more general and focus on one particular group and may be less about students' own experience (Hoang, 2012, Sleeter, 2011). The degree to which the prejudice/conflict course reflected most ethnic studies courses is debatable. Additionally, the Rudman et al. study focused only on one course that had a small sample size ( $n = 23$  in experimental group). There is a need to examine the effectiveness of ethnic studies courses as to their ability to reduce implicit bias.

Mixed support was found for the effect of graduate counseling and counseling psychology multicultural courses on measures of implicit racial bias. Castillo, Brossart, Reyes, Conoley and Phoummarath (2007) found that for counseling trainees, their multicultural course experience produced a reduction in implicit racial bias as measured by IAT as compared to a counseling theories course. Conversely, Boysen and Vogel (2008) found that participation in multicultural counseling courses had no impact on implicit bias. The research examining the overall usefulness of diversity and graduate level multicultural classes to reduce implicit bias are limited.



## **Reducing Racial Bias in Classrooms**

Researchers have suggested two general classroom approaches to reducing racial bias (Dovidio, Gaertner, Stewart, Esses, ten Vergert & Hodson, 2004; Nagda, Kim & Truelove, 2004; Lopez, Gurin & Nagda, 1998). Dovidio et al. (2004) described these approaches as “enlightenment” and “encounter” approaches. The enlightenment approach involves “expanding the knowledge that people have of other groups or altering people’s perspective of their relations with other” (Dovidio et al., 2004, p.257). The enlightenment approach reflects the use of traditional classroom features including lectures, readings and written assessments (Nagda, 2006). The purpose of the approach is to help students learn factual knowledge about other groups and the effect of racism on people of color. The encounter approach involves “educational methodologies that are interactive and involve students as active participants in both individual and collective learning” (Nagda, 2006, p. 555). Based on Allport’s (1954) contact hypothesis, encounter approaches assume that students will reduce racial bias by actively learning and interacting with each other. Instructors of psychology diversity courses reported the use of lecture and discussion as most common teaching techniques (Prieto, Whittlesey, Herbert. Ocampo, Schomburg & So, 2009) suggesting that instructors are commonly incorporating these approaches into their work.

### **Enlightenment**

Enlightenment approaches, defined by traditional classroom components including lectures and readings, have the goal of increasing knowledge about cultural groups and the influence of racism. Enlightenment approaches are assumed to be related to decreasing explicit racial bias. This assumption is based on finding of explicit reduction in traditional university courses (cf. Cole, Case, Rios & Curtin, 2011; Engberg, 2004; Dovidio et al, 2004). Because most

university courses tend to incorporate traditional components of teaching (Bonwell & Sutherland, 1996) researchers have assumed that the traditional components are related to reduction in explicit racial bias. The specific effects of these traditional components have not been examined in isolation related to reducing racial bias. However, research has shown some evidence to support the effectiveness of traditional classroom components. Swim and Miller (1999) found that learning about historical discrimination can reduce racial bias towards others. Rudman, Ashmore and Gary (2001) found that cognitive changes, such as increased awareness of discrimination experienced by African Americans, were related to reduction in explicit racial bias (but not implicit bias) in their conflict seminar. The goal of diversity courses, including ethnic studies courses, is to reduce explicit bias (Engberg, 2004). Diversity courses are more likely to rely on traditional/enlightenment methods of changing bias (Dovidio et al, 2004). Research suggests that enlightenment plays a factor in reducing explicit bias but no evidence of the effectiveness to reduce implicit bias.

### **Encounter**

Encounter approaches are defined by the involvement of active approaches that encourage contact and discussion between students (Dovidio et al, 2004; Nagda, 2006). Given racial diversity in courses and the support of an instructor, classrooms can have Allport's conditions for prejudice reduction through intergroup contact (Zirkel, 2008). Although most diversity courses, including ethnic studies courses, do not use contact as primary source of teaching, meaningful interaction with classmates may be able to reduce bias (Zirkel, 2008). Rudman, Ashmore, Gary (2001) found when students made friends with classmates of different race, implicit bias was reduced.

There is limited research on the influence of encounter and contact approaches in university ethnic studies or diversity courses. As previously discussed, Denson's meta-analysis on curricular and co-curricular activities, within ethnic studies classes, found that intergroup contact components reduced explicit racial bias more than interventions that just featured enlightenment components. No research to date has been conducted on the influence of classroom components in reducing bias for ethnic studies classes. However, research on university courses based on "Difficult Dialogues" (Gurin, Nagda & Zuniga, 2013; Nagda & Zuniga, 2003) curricula can provide evidence of the impact of enlightenment and encounter approaches on race-related bias. Difficult Dialogues is a curriculum based on increasing productive intergroup contact for students from different racial backgrounds (Gurin, Nagda & Zuniga, 2013; Nagda & Zuniga, 2003). Nagda et al. (2004) found that both enlightenment and encounter approaches were related to students' confidence in reducing their own racial bias and confidence in promoting diversity. Nagda (2006) found that encounter approaches were related to students' ability to bridge differences with people from different racial/ethnic groups. Krings, Austic, Gutierrez and Dirksen (2015) found that intergroup dialogue courses and traditional diversity courses both increased activism related to issues of diversity and racism. Nagda and Zuniga (2003) found that encounter approaches increased awareness of racial group membership, perspective taking, and comfort in communicating about racial differences. Lopez, Gurin and Nagda (1998) found that course content and active learning components both independently contributed to understanding structural causes for group inequalities.

Although encounter approaches have limited support, the impact of intergroup contact on college students has been well documented (see Chavous, 2005 for review). An intercultural communication course designed to increase cultural awareness and intercultural communication

competence increased students' level of empathy towards others (Carrell, 1997). Students who completed an independent assignment about diversity, an enlightenment component, did not increase in empathy. The study suggested that communication, a goal of encounter approaches, and cultural awareness, a goal of enlightenment approaches, are important factors in growth on topics of racial bias. Experiencing interpersonal interaction related to racial diversity had the strongest positive impact on cognitive development, including abilities in critical thinking, problem solving and tendencies to engage in meaningful thinking (Bowman, 2010a). Socializing with people from different racial/ethnic group and discussing racial/ethnic issues were related to cultural awareness, commitment to promoting racial understanding, and a reduction in the belief that racism is no longer a problem (Astin, 1993). One assumption that could be made is that ethnic studies courses that have more discussion and active learning components might impact racial bias differently than courses that are purely enlightenment-based. However, studies to date have not examined the impact of encounter approaches in ethnic studies courses on reduction of implicit bias.

### **Role of Online/Distanced Learning**

Universities are increasingly using online course (also known as distance education) formats for class offerings (Allen & Seaman, 2011) with an increase of about 2% of students enrolling in an online-presented course each year. In the fall of 2018, 34% of students enrolled in at least 1 online-course and 14% of students only enrolled in classes offered online (Hussar et al., 2020). No studies were found to examined outcome differences between traditional face -to-face ethnic studies or diversity courses to their online counterparts.

However, general research on online/distanced learning combined with research on “enlightenment” and “encounter” approaches (Dovidio et al., 2004) might provide evidence that course format may impact the use of ethnic studies courses to reduce race-related implicit bias.

Many studies compare the differences in academic performance online/distanced learning and traditional face-to-face course. Allen et al. (2004) conducted a meta-analysis on the comparison between online/distanced learning and traditional face-to-face course in predicting exam and final course grades using 29 studies. The researchers found that students in distanced learning courses performed slightly better or about the same compared to their traditional in-person counterparts (average  $r = .048$ ,  $p < .05$ ). They found similar results when comparing academic performance differences in online courses to performance in face-to-face courses in courses where material was presented in real time (synchronous; average  $r = .07$ ,  $p < .05$ ) and in courses where students could access the material on their time (asynchronous; average  $r = .07$ ,  $p < .05$ ). Social studies courses, like ethnic studies courses, found a similar difference in academic performance between online/distance learning and traditional face-to-face course (average  $r = .07$ ,  $p < .05$ ). While these differences were statistically significant in the meta-analysis, the effects were close to zero suggesting little practical difference between academic performance in online/distanced learning and traditional face-to-face course. Shachar and Neumann (2010) conducted a similar meta-analysis on 125 studies. They found that students in online courses slightly outperformed students in traditional in-person courses ( $d = 0.257$ , 95% CI [0.17, 0.35]). They also found that the differences effect size has shown a pattern of increase in the last decade of the research studies examined (2000-2009). Means, Toyama, Murphy and Baki (2013) found, in a meta-analysis of 45 studies, no difference in academic performance between purely online courses and traditional face-to-face courses.

Researchers found that most online courses in their meta-analysis of 76 studies were asynchronous (Bernard et al, 2009). Face-to-face courses are typically synchronous where the class meets at the same time for instruction. The meta-analysis found no difference in achievement between online classes that are asynchronous and online classes that have synchronous components. Student's perception of social presence or "the ability to perceive others in an online environment" (Richardson, Maeda, Lv and Caskurlu, 2017, p. 402) has been found to be related to academic performance and course satisfaction.

However, it cannot be assumed that similar academic performance between online/distanced learning and traditional face-to-face course extends to impacts on racial bias, especially implicit bias. No studies were found to examine the use of online ethnic studies or diversity courses to reduce racial bias. Research suggest that encounter approaches, relying on intergroup contact theory may impact implicit bias (Dovidio & Gaertner, 2004; Gaertner & Dovidio, 2005; Pearson, Dovidio & Gaertner, 2009). However, distanced/online courses that provide decreased opportunities for meaningful intergroup contact might make changes in implicit bias more difficult. Online courses may encourage deindividuation due to "visual anonymity" and lack of cues (Sherblom, 2010) which may be important in meaningful intergroup contact. Students in online courses may be more easily be perceived to be "othered" or marginalized due to lack of social cues (Phirangee & Malec, 2017). Students in online courses have reported feelings of disconnection, isolation, and lack of community (Phirangee & Malec, 2017, p.169).

### **Summary**

Researchers and officials have tasked universities and colleges to reduce racial bias among college students to create an inclusive environment and prepare students to interact with

diverse populations (Guo & Jamal, 2007; Harper & Hurtado, 2007; Quaye & Harper, 2007). One of the approaches to accomplishing this task is by providing, required or not required, ethnic studies courses (Guo & Jamal, 2007).

Aversive racism theory and research on internalized racism suggest that both implicit and explicit racial bias must be considered when examining overall racial bias (Dovidio & Gaertner, 2004; Dovidio, Gaertner & Pearson, 2016; Gaertner & Dovidio, 1986; Pearson, Dovidio & Gaertner, 2009; Huber et al., 2006). Research has shown evidence of negative consequences (lower interracial interaction, experience of mistrust from people of color & negative nonverbal behavior) for people that have lower levels of explicit racial bias but high levels of implicit racial bias (Dovidio & Gaertner, 1996; Dovidio and Gaertner, 2000; Gaertner, 1973; Gaertner & Dovidio, 2005; Hodson, Dovidio, & Gaertner, 2002; Hyers & Swim, 1998; Johnson, Whitestron, Jackson & Gatto, 1995; Karpinski & Hilton, 2000; Knight, Guiliano & Sanchez-Ross, 2001; Murre, Dietz-Uhler, Dovidio, Gaertner & Drout, 1994; Otero & Dovidio, 2005; Pearson, Dovidio & Pratto, 2007; Saucier, Miller & Doucet, 2005; Shelton, 2000; Sommers & Ellsworth, 2000; Son Hing, Chung-Yan, Hamilton & Zanna, 2008). Research has also shown negative consequences for students of color who internalize racism (Bryant, 2009; Graham, West, Martinez, & Roemer, 2016; Johnson & Kohli, 2006; Molina & James, 2016; Muzon & McLean, 2017; Robertson, 2018). Research on gender/sex and race/ethnicity suggest that levels of implicit and explicit racial bias might be impacted by these demographic factors along with impacting individuals' development of racial bias beliefs (Assari, 2018; Assari et al., 2017; Cundiff & Komarraju, 2008; Navarrette et al, 2010; Neville et al, 2014; Nosek et al., 2002; Sabin et al., 2009; Uzogara, 2018).

Interventions aimed at reducing racial bias should aim at reducing both implicit and explicit bias. Educational strategies aimed at increasing knowledge related to racism and interventions aimed at intergroup contact are the most commonly used and empirically supported methods to reduce explicit racial bias (Dovidio, Kawakami & Gaertner, 2000; Dovidio & Gaertner, 2004; Pettigrew & Tropp, 2006; Pettigrew & Tropp, 2008; Stephan & Stephan, 2001; Utsey, Ponterotto, & Porter, 2008). Multiple approaches have been shown to reduce implicit bias (Aarts, Gollwitzer, & Hassin, 2004; Devine, Forscher, Austin & Cox, 2012; Dovidio & Gaertner, 2004; Gaertner & Dovidio, 2005; Green et al., 2007; Kawakami et al., 2000; Moskowitz, Salomon, & Taylor, 2000; Park et al., 2008; Pearson, Dovidio & Gaertner, 2009; Nier, Gaertner, Dovidio, Banker, & Ward, 2001; Sassenberg and Moskowitz, 2005; Son Hing & Zanna, 2002). Like with explicit bias, intergroup contact has been shown to reduce implicit bias (Aberson & Haag, 2007; Aberson, Shoemaker & Tomolillo, 2004; Dasgupta & Rivera, 2008; Henry & Hardin, 2006; Tam, Hewstone, Harwood, Voci, & Kenworthy, 2006; Turner, Hewstone, & Voci, 2007; Vezzali & Giovannini, 2009).

Research on ethnic studies and related-diversity courses provide evidence for the reduction of racial explicit bias as a result of simply taking these courses (Astin, 1993; Bowman, 2010b; Brehm, 1998; Case, 2007; Chang, 2002; Denson, 2009; Gurin, Dey, Hurtado & Gurin, 2002; Henderson-King & Kaleta, 2000; Kernahan & Davis, 2010; Milem, 1994; Probst, 2003; Rudman, Ashmore & Gary, 2001). However, these findings have limitations on their generalizability. Research specifically on ethnic studies courses has mostly relied on the same source of data (CIRP) and relied on correlational cross-sectional data after completion of an ethnic studies course (Engberg, 2004). Studies on race-based diversity courses and explicit bias either used cross-sectional information (Chang, 2002; Bowman, 2010b) or only focused on one



course (Case, 2007; Henderson-King & Kaleta, 2000; Kernahan & Davis, 2010; Probst, 2003; Rudman, Ashmore & Gary, 2001).

There is no evidence for the effect of ethnic studies courses on implicit bias. Only one study found a reduction of implicit bias in an undergraduate diversity course (Rudman et al., 2001). However, it is difficult to know the degree to which this course has in common with ethnic studies courses. Rudman et al.'s study focused on teaching about bias and conflict while ethnic studies courses normally explore the experience of a particular cultural group (Sleeter, 2011). Research on the relations between implicit bias and ethnic studies courses needs to be conducted. Improvement of explicit bias but not implicit bias may not offset adverse racism among students.

Understanding how different teaching approaches can target reducing implicit and explicit bias is important to explore (Dovidio, Gaertner, Stewart, Esses, ten Vergert & Hodson, 2004; Nagda, Kim & Truelove, 2004; Lopez, Gurin & Nagda, 1998). There are two general approaches to reducing bias in classrooms: an enlightenment approach, based on traditional teaching methods to educate students about other groups; and, an encounter approach, based on the encouragement of classroom discussion and active learning activities to increase intergroup contact. Online/distance courses are becoming more common but may not be able to provide encounter approach that engages meaningful intergroup contact to reduce implicit bias. (Gaertner & Dovidio, 2005; Gurin, Nagda & Zuniga, 2013; Lopez, Gurin & Nagda, 1998; Nagda, 2006; Nagda & Zuniga, 2003; Nagda, Kim and Truelove, 2004; Phirangee & Malec, 2017; Pearson, Dovidio & Gaertner, 2009; Sherblom, 2010).

### **Present Study**

My study was designed to add to the limited research on the ability of ethnic studies courses on reducing racial bias and prejudice. I aimed to examine the effect of ethnic studies courses on student levels of both explicit and implicit racial bias. Unlike previous studies, I sampled multiple ethnic studies courses to be able to generalize the results. I conducted the first study to date that examines the relation between ethnic studies courses and implicit racial bias along with examining sex and cultural demography as moderators of racial bias. I also examined the impact of online/distance courses on implicit bias over time.

## CHAPTER 3. METHOD

### Participants

My study was approved by the Institutional Review Board at Iowa State University, and all human subjects' rights were observed (See Appendix A). I obtained informed consent from participants before they took part in my study. Inclusion criteria included enrollment in an introductory level course offered by one of the four ethnic studies programs at Iowa State (African & African American Studies, AF AM 201; American Indian Studies, AM IN 210; US Latino/a Studies, USLS 211; and, Asian American Studies, HIST 225), and being 18 or older. There were about 10 sections each semester during the academic year with an enrollment maximum of about 30 students in each section. Participants were offered an opportunity to take part in a drawing for a \$35.00 gift certificate to Amazon.com for each part of the study in which they chose to participate.

A total of fifty-seven people started the survey. Thirty-seven (37) people signed the informed consent. Three cases were discarded due to not completing the survey after informed consent. Four cases were discarded because they discontinued the survey after completing the demographic items. A total of 30 useable cases were used included for final data analysis.

The sample had a mean age of 19 years ( $SD = 1.28$ , range 18 to 22). A majority of participants were female-identified (70%), and a slim majority of the sample identified as European American/White (57%). Other cultural identifications were: Latinx/Hispanic American (33%), African American/Black (23%), American Indian/Alaskan Native (3%), and Asian American (3%). Half of the sample (50%) self-identified as people of color. Totals exceed 100% as participants could pick more than one cultural/racial group. Five students selected more than

one cultural identification and all students with more than one cultural identification identified as students of color. One student (3%) identified as an international student.

### **Academic Information**

Participants were approximately evenly divided among their year in college; 30% were first year/freshman students, 30% were sophomores, 20% were juniors, and 20% were seniors. A majority of the sample were enrolled in the introductory level African & African American Studies (43.3%) or the US Latino/a Studies course (46.7%). The remaining participants were enrolled in the American Indian Studies course (10%). No participants were enrolled in the Asian American Studies course. Half of the students (50%) reported that their cultural/racial background matched the focus of the ethnic studies course in which they were enrolled. During the study, I modified the survey to include a question on course format (in-person vs. distanced learning/online) due to the increased presence of online courses in semesters following the first wave of data collection. Of the 16 participants who received the question, 25% of students (n = 4) reported that their course was in an online format.

### **Procedures**

I obtained email addresses from the Registrar's Office of students who were enrolled in these four ethnic studies courses, during the Fall 2018 semester, the Spring 2019 semester, and the Fall 2020 semester. At the start of each semester, I sent an email invitation to participate in my study and followed up a week later to enhance participation. Participants completed the initial survey between weeks two and five of the semester. Solicitation was also attempted during the Summer 2019 semester, but no one partook in the study.

At the start of the semester, participants completed, in the following order: demographic items; the Implicit Association Task (Greenwald et al., 1998); the Modern Racism Scale

(McConahay, et al., 1981); and, the Marlowe-Crowne Social Desirability Scale-Short Form (Reynolds, 1982); see Appendix B-E for study materials). For follow-up purposes, participants had the option of providing an active, non-ISU email address (for anonymity), or using their ISU email address.

Participants completed the follow up survey between weeks 14 and 16 of the semester. At follow-up, participants completed all measures except demographic items. Only a small number of participants (n = 5) completed the follow-up survey.

During all waves of data collection, I provided participants a URL that linked them to the ISU Qualtrics® data collection software, a fire-walled and secure site, to complete study materials. No other identifying information was collected from participants as they completed research materials.

## **Measures**

### **Modern Racism Scale**

The Modern Racism Scale (MRS; Appendix C; McConahay, 1986; McConahay, Hardee, & Batts, 1981) is a measure of participants' racial bias. The MRS measures two cognitive components of racial bias (McConahay, 1986); Old Fashion Racism and Modern Racism, each of which reflects different forms of *explicit* racial bias against African Americans (Gaertner & Dovidio, 2005; McConahay, 1986). The Old Fashion racism scale measures traditional attitudes related to racial bias that pre-date the US civil rights movement of the 1960s. An example is: "It is a bad idea for blacks and whites to marry one another." The Modern Racism subscale measures subtle and more contemporary ideas that reflect newer forms of racist attitudes. The majority of people endorsing these items do not consider them to reflect racially biased attitudes but instead ideas supported by facts and morals (McConahay, 1986). An example is

“Discrimination against blacks is no longer a problem in the United States.” Because some MRS items specifically tap respondent attitudes toward African Americans rather than all people of color, I adapted the MRS for my study by using the more inclusive term ‘people of color’ in items that specifically identify ‘Blacks’ (e.g., “Discrimination against people of color is no longer a problem in the United States.”)

The MRS consists of 14 questions; seven on the Old Fashion Racism subscale and seven on the Modern Racism subscale. Participants rated each item on a five-point Likert-type scale, ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). Three items were reverse-scored (2, 3 and 9). Each of the subscale scores has a possible range of 7 to 35. I divided subscale scores by 7 to align them with the 1 - 5 Likert range. *Higher* scores on each subscale suggest *higher* levels of participant racial bias.

McConahay (1986) and McConahay et al., (1981) provided validity evidence for the MRS. McConahay (1986) conducted exploratory factor analyses with community and college student samples using rotated solutions to account for the theoretical relations between different factors of racist attitudes. Within the college sample, items loaded onto two distinct factors, with loading weights ranging from .78 to .44 for the Old Fashion Racism factor; and, from .61 to .34 for the Modern Racism factor. The two factors accounted for 48.2% of the variance among the items.

For the community sample, items loaded onto two distinct factors, with loading weights ranging from .83 to .31 for the Old Fashion Racism factor; and, from .81 to .39 for the Modern Racism factor. The two factors accounted for 49.4% of the variance among the items. In both of these EFAs, the two factors had a correlation of  $r = .59$ , suggesting that they both tapped related but independent elements of the construct of “racial bias”.

McConahay (1986) and McConahay et al. (1981) also conducted a series of experiments to investigate how participants would react on each subscale with experimenters of different races. As predicted by researchers, participants scored reported less racial bias on the Old Fashion Racism subscale when administered by an African American experimenter as compared to a European American experimenter ( $F = 7.85$ ;  $p < .05$ ). Participants, however, scored similarly across the condition of the experimenter's race on the Modern Racism subscale, suggesting less reactivity to the race of the experimenter ( $F < 1.0$ ;  $p < .05$ ). Participants rated the Old Fashion subscale items ( $M = 7.68$ ) as more reflective of racism than items on the Modern Racism subscale ( $M = 5.68$ ;  $F = 7.36$ ;  $p = .009$ ; McConahay et al., 1981). The authors showed that responses to Modern Racism items may be influenced by social desirability. While social desirability, as measured by Marlowe-Crowne Social Desirability Scale, was not statistically related to MRS subscales in this sample, social desirability was controlled in my analyses with MRS due to relationship based in theory and prior research. The Modern Racism subscale was able to predict participant ability to identify microaggressions in four different scenarios (Kanter, Williams, Kuczynski, Manbeck, Debreux & Rosen, 2017;  $r = .27$  to  $.36$ ;  $p < .01$ ). The microaggressions in the scenarios included comments about current events and political issues; denial of white privilege; comments about an African American female's hair/clothing and assumptions of being on scholarship.

As a more subtle measure of racial bias attitudes, the Modern Racism subscale was positively correlated ( $r = .30$ ) with a preference to vote for a European American political candidate over an African American candidate in a community sample in Los Angeles, even after controlling for political views and political party association (McConahay, 1986). Within college student samples, the Modern Racism subscale was correlated with the construct of Color-

Blind Racial Attitudes (Awad, Cokley & Ravitch, 2005;  $r_s = .40$  to  $.54$ ;  $p < .01$ ) and anti-black feelings measured by the Feeling Thermometer (Gawronski, Peters, Brochu & Strack, 2008;  $r = .31$ ;  $p < .01$ ) providing evidence for construct validity.

Overall, the MRS showed internal consistency coefficients of .81 and .86, for the Old-Fashioned and Modern Racism subscales, respectively, in a college student sample (McConhany, 1983). The MRS has been used as a measure of racial bias in previous studies examining the effectiveness of race-related undergraduate courses (cf. Chang, 2002; Hogan & Mallott, 2005).

For the current sample, the Old Fashion Racism subscale had an alpha coefficient of .66; the Modern Racism subscale had an alpha coefficient of .77. The Old-Fashion Racism subscale mean was 1.35 with a standard deviation 0.55. The Modern Racism subscale mean was 1.39 with a standard deviation 0.53. The two subscales had a statistically significant positive relation ( $r = .75$ ;  $p < .001$ ). The magnitude of the subscale means indicates participants, on the average, reported very low levels of Old Fashion and Modern Racism.

For the five participants that completed the follow up at the end of the semester, the scores on the Modern Racism Scale subscales were used from the participants' most recent survey at the end of the semester to create a greater range of data.

### **Implicit Association Task**

The 'racial bias' version (Appendix D; Nosek et al. 2007; Nosek, Banaji & Greenwald, 2002) of the Implicit Association Task (IAT; Greenwald et al., 1998), measures automatic cognitive associations between the race-based appearance of a stimulus face photo and positive or negative word associations. The IAT uses reaction times on a simple sorting tasking to measure the strength of participant automatic associations.



I used a web-based version of the IAT designed to operate within the Qualtrics® system (Carpenter et al., 2017). Web-based versions of the IAT have similar response patterns to lab-based administrations (Nosek, Banaji & Greenwald, 2002). The racial bias IAT consists of seven trials where participants are presented with emotionally neutral facial images of African Americans and European Americans, and words that have been traditionally defined as positive or negative (see Appendix D for images and categorical words). Participants were asked to sort the pictures and words as quickly as they can into their respective categories (racial group and judgment characteristic of the word).

The seven trials were inclusive of two short practice trials, before the longer experimental trials are conducted, to offset practice effects and help orient participants to the task. In the two practice trials, participants only sorted facial images or words, respectively, in each trial. Participants were then simultaneously presented with combined pair groupings (e.g., “positive word and African American face” or “negative word and European American face”) to sort words and images for a total of 4 trials. An additional practice trial was presented in the fifth trial to help participants adjust to facial categories appearing on the opposite side of the screen. All combinations of face and words were presented on both the right and left side of the screen. Additionally, the IAT software informed participants when they made an error in sorting (e.g. selecting 'African American' for a 'European American' face), which they had to correct before moving on to the next stimuli (cf. Greenwald, Nosek & Banaji, 2003). Due to the amount of time it takes participants to correct themselves, participants effectively had a time penalty for incorrect sorting.

Participant reaction times were recorded for each trial. Participants were expected to have a faster reaction time for combinations of faces and value-associated words that match their

automatic cognitive associations. When the combination of faces and value-associated words was antithetical to participant automatic cognitive associations, this was expected to produce a slower reaction time due to increased processing time due to cognitive dissonance.

Greenwald et al. (2003) recommend that trials over 10,000 milliseconds or all of the data provided by any participant with 10% of their responses being less than 300 milliseconds be eliminated due to questions surrounding the reliability of such data. Based on a series of analyses, Greenwald et al. (2003) found that these outlier scores adversely affected the validity of the measure.

For my study, I calculated a time-based difference score (D-score) for participants, based on the guidelines provided by Greenwald et al. (2003). The steps taken to calculate this D-score are: 1) calculate the average speed of sorting for each trial; 2) calculate the differences between trials 3 and 6; and trials 4 and 7; 3) divide each found difference by the pooled standard deviation of the associated pair so as to create a standardized difference; and, 4) average the two standardized differences to create a final D-score.

Practically speaking, a D-score of 0 would suggest that participants were equally fast on all trials, irrespective of racial stimuli. A positive D-score would indicate a positive bias towards European American faces versus African American faces, suggesting an implicit bias towards European Americans. A negative D-score would indicate a positive bias towards African American faces versus European American faces, suggesting an implicit bias towards African Americans. D-scores are intended to reflect a *degree* of bias rather than of the absolute presence or absence of bias. I used Carpenter et al.'s (2017) online scoring system to calculate D-scores from raw time data; this online system also automatically deletes invalid trials according to the guidelines established by Greenwald et al. (2003).

In my sample, one participant's score was not included due to excessive speed and answering too quickly, based on the guidelines established by Greenwald et al. (2003). In all analyses including the IAT, this case was not included.

Research has been conducted on the validity of the IAT. Nosek, Banaji and Greenwald (2002), based on a sample of 160,857 participants, found on average a positive bias toward European American faces versus African Americans faces ( $d = 0.71$ ). Specifically, their results suggested that European American participants showed the strongest positive bias toward European American faces ( $d = 0.83$ ), with Asian Americans ( $d = 0.78$ ) and Latinx Americans ( $d = 0.66$ ) also displaying a similar bias. On average, African Americans displayed a much smaller positive bias for European American faces ( $d = 0.17$ ). Nosek et al. (2002) stated their findings provided construct validity for the IAT by demonstrating expected higher out-group bias than in-group bias. Scores on the racial bias version of the IAT have been shown to be related to implicit bias against Latinx faces ( $r = .49$ ; Blair et al., 2013). Hofmann, Gawronski, Gschwendner, Le, and Schmitt (2005) found the IAT to have an average internal consistency of .79 in studies included in their meta-analysis. In this study, the Spearman-Brown split-half reliability coefficient was .70.

Nosek et al. (2007) found a small but statistically significant relation between the racial bias version of the IAT with explicit, self-report measures of racism (average  $r = .27$ ) suggesting the IAT and explicit measures of racial bias are related but different concepts. Greenwald, Poehlman, Uhlmann and Banaji (2009) conducted a meta-analysis to examine studies testing the predictive validity of the IAT. They found that in 32 studies predicting Black–White interracial discrimination behaviors, IAT scores correlated more strongly ( $r = .24$ ) with predicting Black–White interracial-interaction behaviors than did explicit, self-report measures ( $r = .17$ ;  $z = 4.27$ ,  $p$

< .001). Although both correlations indicate very small magnitude relations, explicit self-report measures are often used in research to predict or explain behavior when IAT cognitive-based measure may account for more variability in behavior.

In my current sample, the IAT had a mean D-score of 0.15 with a standard deviation 0.32. The Cohen's *d* for the sample was calculated to be 0.48 ( $p < .05$ ). For the five participants who completed the follow up at the end of the semester, the D-scores on the IAT were used from the participants' most recent survey at the end of the semester to create a greater range of data.

### **Marlowe-Crowne Social Desirability Scale-Short Form**

The Marlowe-Crowne Social Desirability Scale - Short Form (SDS; Appendix E) is a 13 item, true or false, self-report measure that assesses tendencies to respond in a socially desirable way (Reynolds, 1982). Items were scored as a 1 for a less socially desirable response and as a 2 for a more socially desirable response. Five items were reverse-scored (5, 7, 9, 10, and 13), and the mean score of all items was used, ranging from one to two. *Higher* scores represent *greater* levels of socially desirable responding.

The SDS has a high correlation with the Marlowe-Crowne standard form ( $r = .96, p < .001$ ; Marlowe & Crowne, 1960; Fischer & Fick, 1993), as well as the Edwards Social Desirability scale ( $r = .41, p < .001$ ; Edwards, 1957; Reynolds, 1982). The SDS has a high level of internal consistency ( $\alpha = .89$ ; Fisher & Fick, 1993). I used the SDS to control for participants' socially desirable responding on self-reported scores concerning explicit racial bias. For my sample, the SDS had an alpha coefficient of .72.

### **Day of Survey Completion**

A new variable was created based on the day of survey completion. Using Iowa State's academic calendar, a number was entered as a variable into my database indicating the number

of days into the semester when participants completed research materials. The first day of the classes was designated as 'day one'. Weekends and holiday breaks, such as Thanksgiving, were included in the count. For the five participants who completed the follow up at the end of the semester, the day entered was when these participants completed the follow up survey. The purpose of using the later date was done to create a greater range in the data.

### **Research Questions and Hypotheses**

#### **Research Question 1**

Will European American male-identified participants have higher scores of explicit racial bias as compared to people of color and female-identified participants?

#### **Hypothesis 1A**

There will be a statistically significant interaction between sex (Male/Female) and person of color demography (yes/no) on Old Fashion Racism subscale scores on the MRS, after controlling for SDS scores. European American men will have higher scores on the Old Fashion Racism subscale of the MRS compared to people of color and European American women.

#### **Hypothesis 1B**

There will be a statistically significant interaction between sex (Male/Female) and person of color demography (yes/no) on Modern Racism subscale scores, after controlling for SDS scores. European American men will have higher scores on the Modern Racism subscale of the MRS as compared to people of color and European American women.

#### **Research Question 2**

Will European American male-identified participants have higher scores of implicit racial bias compared to people of color and European American female-identified participants?

**Hypothesis 2**

There will be a statistically significant interaction between sex (male/female) and person of color demography (yes/no) on IAT D-scores. European American men will have higher IAT D-scores as compared to people of color and European American women.

**Research Question 3**

Will participant sex moderate the relation between the day in the semester that survey was completed and explicit racism scores?

**Hypothesis 3**

Participant sex will significantly moderate the relation between the day in the semester that survey was completed and scores on the Modern Racism subscale of MRS, after controlling for SDS (see Figure 1 for statistical model).

**Research Question 4**

Will sex moderate the relationship between the day in the semester that survey was completed and implicit racism scores?

**Hypothesis 4**

Sex will significantly moderate the moderation of person of color demography on the relationship between the day in the semester that survey was completed and D-scores on the IAT (see Figure 2 for statistical model).

**Research Question 5**

Will the format of the course (online/distance vs. in-person) moderate the relation between the day in the semester of survey completion and implicit bias scores, after controlling for participant sex and racial identification?

### Hypothesis 5

The format of the course (online course vs. face-to-face course) will statistically significantly moderate the relation between the day in the semester of survey was completed and implicit bias, as measured by IAT-D scores, after controlling for participant sex and racial identification.

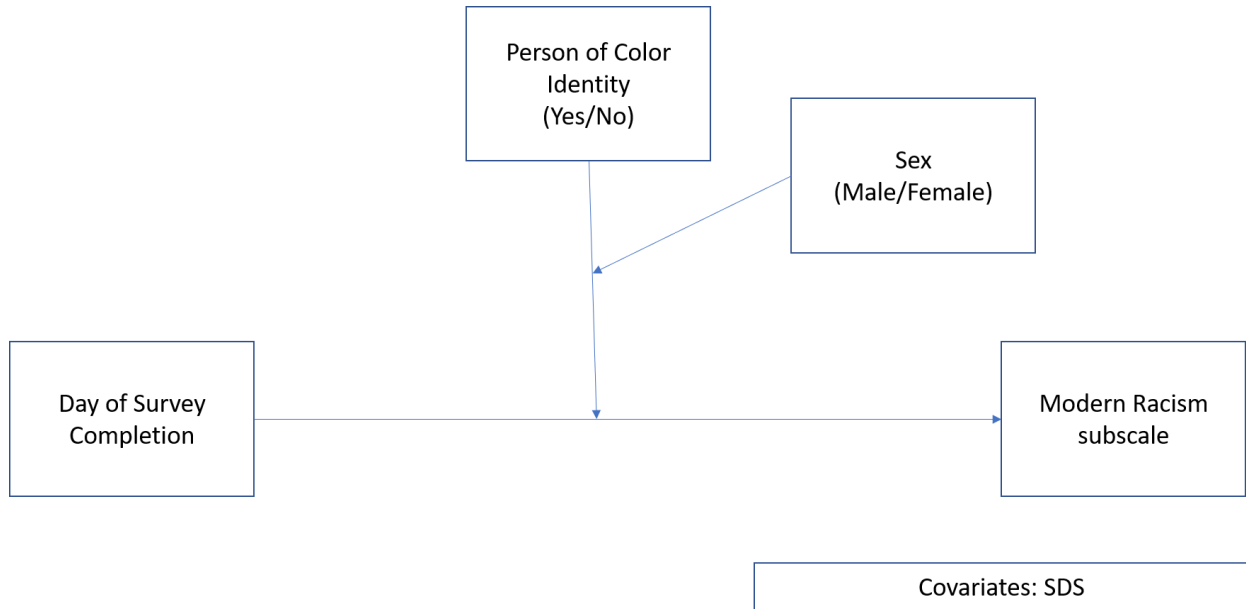


Figure 1. Model for Hypothesis Four

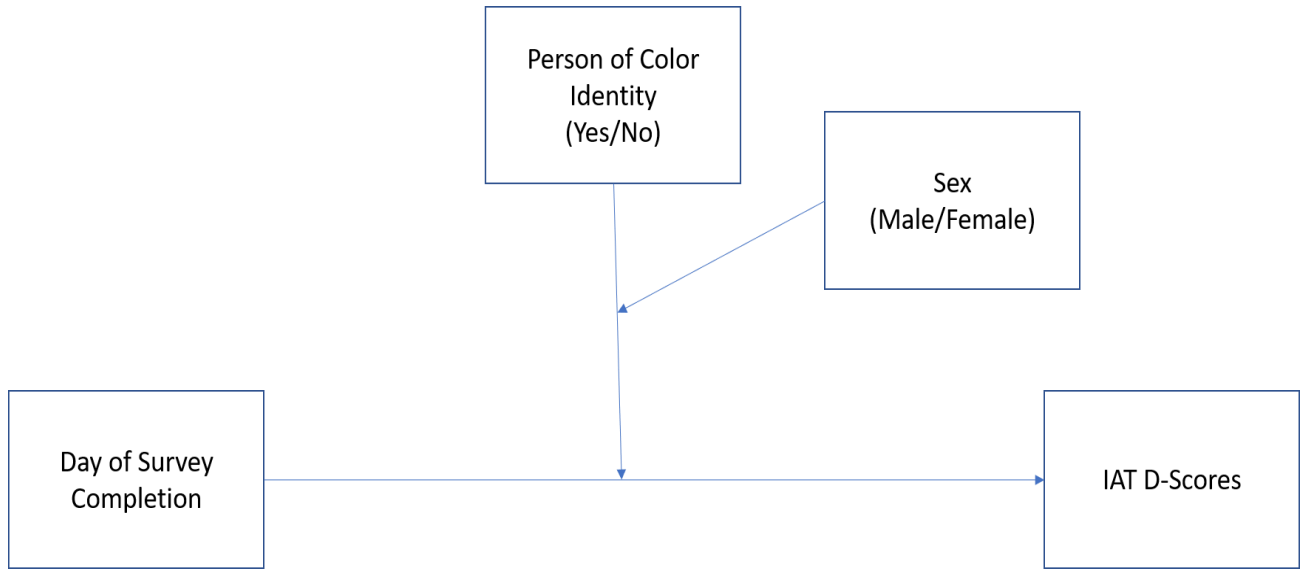


Figure 2. Model for Hypothesis Five



## CHAPTER 4. RESULTS

### Data Preparation

Only five participants completed the follow-up survey; hence, these participants completed the MRS and IAT twice; once at the start of the semester and once at the end of the semester. For these 5 participants, I used to the participants' most recent survey at the end of the semester to create a greater range of day of survey completion data. For all analyses, only participants' most recent survey was used. For the day of survey completion item, the day entered was when the follow up survey was completed.

### Outliers

For all measures, a visual scan for outliers was completed. For the IAT, one possible outlier was found (D-score = 1.20). The participant's score on IAT was over 2 standard deviations from next highest score (D-score = 0.52) and over 3 standard deviations from the scale mean (D-score = 0.15). Data analyses for all hypotheses including the IAT was run with and without the possible outlier. Results did not change based on the outlier and the results with the outlier included are shown below. No outliers were found for MRS or SDS.

### Missing Data

Within the useable 30 cases, a total of 3 participants failed to endorse certain items on study measures. On the Old Fashion Racism subscale of MRS, two participants did not respond to one item on the measure. On the SDS, two participants did not respond to one item on the measure. For both measures, the participant's mean of other items on the scale was imputed to replace the missing value. There was no missing data on Modern Racism subscale of the MRS.

### Statistical Analysis Procedures

For all descriptive analyses and statistical tests, I used the Statistical Package for the Social Sciences (SPSS; 2020, version 27.0). Two-way ANCOVA tests was used to examine Hypothesis 1, and a two-way ANOVA was used to examine Hypothesis 2. I used Hayes's PROCESS module (2020, version 3.5) for SPSS for moderation analyses on Hypotheses 3-5. Hayes's PROCESS module is a modeling addition to SPSS that can be used for moderation models that automatically provides additional statistics such as simple slopes and  $R^2$  changes (Hayes, 2018).

### Descriptive Statistics

I provide descriptive statistics, including standard deviations, means and ranges for all study measures (Old Fashion Racism subscale-MRS, Modern Racism subscale-MRS, IAT, SDS, survey completion date and course format) in Table 1. Ranges for the Old-Fashion Racism subscale of MRS, Modern Racism subscale of MRS, SDS, IAT and survey completion date for sex and racial demography are presented in Table 2.

Table 1

*Means, Standard Deviations, and Ranges Among Variables*

	M	SD	Sample Range	Scale Range
1. Old-Fashion Racism subscale	1.35	0.55	1.00-3.00	1-5
2. Modern Racism subscale	1.39	0.53	1.00-3.14	1-5
3. SDS	1.49	0.23	1.08-2.00	1-2
4. Implicit Association Task	0.15	0.32	-0.32-1.21	N/A
5. Survey Completion Day	34.00	32.68	10-127	N/A

*Note.* Old-Fashion Racism and Modern Racism are subscales of Modern Racism scale. SDS= Marlowe-Crowne Social Desirability Scale.

Table 2

*Ranges of Variables Among Sex and PoC Demography*

	N	OFR	MR	SDS	IAT	Completion Day
Men of Color	4	1.00 to 2.14	1.00 to 1.29	1.23 to 1.77	-.30 to .22	12 to 127
Women of Color	11	1.00 to 1.86	1.00 to 1.86	1.15 to 2.00	-.32 to .33	10 to 108
EA Men	5	1.00 to 2.43	1.00 to 3.14	1.23 to 1.67	.06 to 1.21	15 to 39
EA Women	10	1.00 to 3.00	1.00 to 2.00	1.08 to 1.85	.02 to .47	10 to 108

*Note.* OFR= Old Fashion Racism; MR= Modern Racism; IAT=Implicit Association Task; SDS= Marlowe-Crowne Social Desirability Scale - Short Form; PoC= Person of Color.

A zero-order correlation matrix was calculated to show relations among all study variables. The results of that analysis are in Table 3. The Old Fashion Racism subscale had a high magnitude relation with the Modern Racism subscale ( $r = .75, p < .001$ ) and a lower magnitude relation with sex ( $r = -.37, p < .05$ ). These findings indicated that as participants' scores on the Old Fashion Racism items increased, they were more likely to identify as male.

The Modern Racism subscale also had a moderate, inverse magnitude relation with IAT D-scores ( $r = -.37, p < .05$ ) and sex ( $r = -.38, p < .05$ ). As participants' Modern Racism scores increased, their implicit bias scores were more likely to be pro-white and they were more likely to identify as male. IAT D-scores had moderate magnitude relation with racial demography ( $r = .52, p < .01$ ) and format of course ( $r = -.53, p < .05$ ). As participants' scores on the IAT increased (suggested a higher pro-white implicit bias), they were more likely to be European American and enrolled in an online course.

Table 3

*Inter-correlations Among All Study Variables*

	1	2	3	4	5	6	7
1. OFR	-----						
2. MR	.75**	-----					
3. IAT	.23	.38*	-----				
4. SDS	-.28	-.12	.02	-----			
5. Completion Day	-.17	-.18	-.10	-.20	-----		
6. PoC	.27	.31	.52**	-.01	-.10	-----	
7. Sex	-.37*	-.38*	-.13	.16	.01	-.07	-----
8. Format of Course	-.23	-.33	-.53*	-.04	.16	-.15	-.08

*Notes.*  $N = 30$ . \*Coefficients significant at  $p < .05$ ; \*\*Coefficients significant at  $p < .01$ . OFR= Old Fashion Racism; MR= Modern Racism; IAT=Implicit Association Task; SDS= Marlowe-Crowne Social Desirability Scale - Short Form; PoC= Person of Color (1=Person of Color 2= Not Person of Color); Sex (1=Male 2=Female); Format of Course (1=Online/Distanced 2=In-person)

The Modern Racism subscale also had a lower inverse magnitude relation with IAT D-scores ( $r = -.37, p < .05$ ) and sex ( $r = -.38, p < .05$ ). As participants' Modern Racism scores increased, their racial implicit bias scores were more likely to be pro-white and they were more likely to identify as male. IAT D-scores had a moderate magnitude relation with person of color demography ( $r = .52, p < .01$ ) and format of course ( $r = -.53, p < .05$ ). As participants' scores on the IAT increased (suggested a higher pro-white implicit bias), they were more likely to identify as European American and be enrolled in an online course.

### **Hypothesis 1A**

I conducted a 2x2 ANCOVA analysis to examine Hypothesis 1B. Sex and racial demography were entered as independent variables, while scores from the Old Fashion Racism subscale of the MRS was entered as the dependent variable. The SDS was first entered as a

covariate to control for the impact of social desirability. The results of the ANCOVA analysis are presented in Table 4.

Table 4

*ANCOVA Results of OFR with Sex and PoC Demography*

Predictor	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	Partial $\eta^2$
Model	2.44	4	0.61	2.41	.08	.28
Intercept	3.22	1	3.44	13.60	<.01	.35
SDS	0.51	1	0.51	2.01	.17	.07
Sex	0.76	1	0.76	2.99	.09	.11
PoC	0.78	1	0.78	3.06	.10	.11
Interaction	0.27	1	0.27	1.05	.32	.04
Error	5.05	25	0.25			

*Notes.*  $R^2 = .39$ , adj.  $R^2 = .29$  for model. OFR = Old Fashion Racism subscale; SDS = Marlowe-Crowne Social Desirability Scale - Short Form; PoC = Person of Color (1=Person of Color 2=Not Person of Color); Sex (1=Male 2=Female).

The overall model was not statistically significant,  $F(4,25) = 2.41$ ,  $p = .08$ , partial  $\eta^2 = .28$ . Social desirability, as measured by SDS, was not related to scores on the Old Fashion Racism subscale of the MRS,  $F(1,25) = 2.01$ ,  $p = .17$ , partial  $\eta^2 = .07$ . The two-way interaction between sex and racial demography, while controlling for SDS, was not statistically significant ( $F(1,25) = 1.05$ ,  $p = .32$ , partial  $\eta^2 = .04$ ). Participant scores on the Old Fashion Racism subscale were not statistically significant different based on their sex or racial demography. Additionally, there was no main effect for sex,  $F(1,25) = 2.99$ ,  $p = .09$ , partial  $\eta^2 = .11$  or racial demography,  $F(1,25) = 3.06$ ,  $p = .10$ , partial  $\eta^2 = .11$ . In other words, participant scores on Old Fashion Racism were not statistically significant different based on their sex or racial demography. These findings indicate that hypothesis 1A was not supported.

## Hypothesis 1B

I conducted a 2x2 ANCOVA analysis to examine Hypothesis 1B. Sex and racial demography were entered as independent variables, while scores from the Modern Racism subscale of the MRS were entered as the dependent variable. The SDS was entered as a covariate to control for the impact of social desirability. The results of the ANCOVA analysis are presented in Table 5.

The overall model was statistically significant,  $F(4,25) = 4.00$ ,  $p = .01$ , partial  $\eta^2 = .39$ . Social desirability, as measured by SDS, was not related to scores on the Modern Racism subscale of the MRS ( $F(1,25) = 0.30$ ,  $p = .59$ , partial  $\eta^2 = .01$ ). The two-way interaction between sex and racial demography, while controlling for SDS, was statistically significant ( $F(1,25) = 7.20$ ,  $p = .01$ , partial  $\eta^2 = .22$ ). Participant scores on Modern Racism subscale were statistically significant different based on their sex and racial demography. To examine this interaction, I conducted an analysis of simple effects for sex and racial demography. Bonferroni adjustments for  $p$  value cutoffs were used with these analyses to account for multiple comparisons. The mean scores were adjusted after controlling for SDS scores.

For people for color, sex did not show statistically significantly different mean scores on the Modern Racism scale ( $F(1,25) = .120$ ,  $p = .73$ , partial  $\eta^2 = .01$ ). There were also no statistically significant mean differences between men (adj  $M = 1.1$ ) and women (adj  $M = 1.2$ ) Modern Racism scale scores. For European Americans, however, sex did show statistically significantly different Modern Racism scores ( $F(1,25) = .11.42$ ,  $p = <.01$ , partial  $\eta^2 = .31$ ). Men (adj  $M = 2.1$ ) had statistically significant higher scores than women (adj  $M = 1.2$ ).

For males, racial demography did show statistically significantly different mean scores on Modern Racism subscale ( $F(1,25) = 9.81$ ,  $p = <.01$ , partial  $\eta^2 = .28$ ). European American males

(adj  $M = 2.1$ ) had statistically significant higher scores than males of color (adj  $M = 1.1$ ). For females, racial demography did not show statistically significantly different means on Modern Racism scores ( $F(1, 25) = 0.01, p = .92, \text{partial } \eta^2 = .00$ ). There were also no statistically significantly different mean scores between people of color (adj  $M = 1.2$ ) and European Americans (adj  $M = 1.2$ ) on the Modern Racism subscale. These findings indicate that hypothesis 1B was supported.

Table 5

*ANCOVA Results of MR with Sex and PoC Demography*

Predictor	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P</i>	Partial $\eta^2$
Model	3.23	4	0.81	4.00	.01	.39
Intercept	2.02	1	2.02	9.99	>.01	.29
SDS	0.06	1	0.06	0.30	.59	.01
Sex	0.84	1	0.84	4.14	.05	.14
PoC	1.48	1	1.45	7.21	.01	.22
Interaction	1.33	1	1.33	6.58	.02	.21
Error	5.05	25	0.20			

*Notes.*  $R^2 = .39$ , adj.  $R^2 = .29$  for model. MR= Modern Racism subscale; SDS= Marlowe-Crowne Social Desirability Scale - Short Form; PoC= Person of Color (1=Person of Color 2= Not Person of Color); Sex (1=Male 2=Female).

**Hypothesis Two**

I conducted a 2x2 ANOVA analysis to examine Hypothesis 2. Sex and racial demography were entered as independent variables, while the IAT D-scores were the dependent variable. The results of the ANOVA analysis are presented in Table 6. The two-way interaction between sex and racial identity was not statistically significant ( $F(1,25) = 1.48, p = .24, \text{partial } \eta^2 = .06$ ). Participant scores on the IAT subscale did not show a statistically significant

difference based on sex and racial demography. These findings indicate that Hypothesis 2 was not supported.

The results of ANOVA suggested a main effect for racial demography on IAT D-scores ( $F(1,25) = 10.61, p = .00, \text{partial } \eta^2 = .30$ ). In other words, people of color ( $M = -.01$ ) had statistically significant lower mean score on IAT than European Americans ( $M = .31$ ).

Table 6

*ANOVA Results of IAT with Sex and PoC Identity*

Predictor	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P</i>	Partial $\eta^2$
Model	0.88	3	0.29	2.79	.02	.31
Intercept	0.45	1	0.45	5.85	.02	.19
Sex	0.00	1	0.00	0.03	.88	.00
PoC Identity	0.82	1	0.82	10.61	.00	.30
Interaction	0.11	1	0.11	1.48	.24	.06
Error	1.93	25	.077			

*Notes.*  $R^2 = .31, \text{adj. } R^2 = .23$ . IAT=Implicit Association Task; PoC= Person of Color (1=Person of Color 2= Not Person of Color); Sex (1=Male 2=Female).

### **Hypothesis Three**

I used the Hayes PROCESS module to determine if sex and racial demography had a joint moderating effect on the relation between day of survey completion and scores on the Modern Racism subscale. PROCESS Model 3 depicts the proposed relation (see previous Figure 1). Survey completion day was entered as the independent variable, Modern Racism subscale of the MRS scores were entered as the outcome variable, sex was entered as the moderator, and racial demography was entered the secondary moderator. Participant SDS scores were entered as a covariate to control for the impact of social desirability. The results of the moderation analysis are presented in Table 7.



Table 7

*Moderated Moderation Model on Modern Racism*

Predictor	<i>b</i>	<i>Se</i>	<i>T</i>	<i>P</i>	<i>LLCI</i>	<i>ULCI</i>
Model on MR						
Constant	-2.91	1.76	-1.67	.11	-6.5706	0.7615
Completion Day	0.10	0.04	2.28	.03	0.0091	0.1947
Sex	2.30	0.92	2.50	.04	0.3882	4.2214
PoC Identity	4.22	1.20	3.51	<.01	1.7229	6.7251
Sex x Day	-0.05	0.02	-2.14	.10	-0.1022	-0.0013
PoC x Day	-0.10	0.04	-2.42	.02	-0.1829	-0.0137
Sex x PoC	2.10	0.65	-3.22	<.01	-3.4541	-0.7455
Sex x Poc x Day	0.05	0.02	-2.33	.03	0.0053	0.0929
SD	-0.28	0.37	-0.74	.46	-1.574	0.5012

*Notes.*  $R^2 = .53$ . MR= Modern Racism subscale of MRS; SDS= Marlowe-Crowne Social Desirability Scale - Short Form; PoC= Person of Color (1=Person of Color 2= Not Person of Color); Sex (1=Male 2=Female).

Participant sex moderated the effect of racial demography on the relation between day of survey completion and Modern Racism scores ( $b = 0.05$ ,  $p = .03$ ). A 95% bootstrap confidence interval for the moderating effect of sex was 0.005 to 0.092, which does not include zero, indicating a true moderation effect. The addition of this interaction term explained an additional 12.1% of the total variance ( $F = 5.43$ ,  $p = .03$ ).

A simple slope analysis was conducted to examine this moderating effect of sex, resulting in four simple slopes (i.e., European American men, European American women, men of color and women of color). The simple slopes analysis revealed that there was a statistically significant relation between day of survey completion and Modern Racism scores for European American men ( $b = -0.05$ ,  $p = .02$ , 95% CI[-.089, -.008]), however there was no statistically significant

relation between the day of survey completion and the Modern Racism subscale of MRS scores for men of color ( $b = 0.00, p = .85, 95\% \text{ CI}[-.009, .011]$ ), women of color ( $b = -0.00, p = .73, 95\% \text{ CI}[-.012, .009]$ ) or European American females ( $b = -0.00, p = .63, 95\% \text{ CI}[-.010, .006]$ ). In other words, European American men had a statistically significant decrease in scores on the Modern Racism subscale of the MRS when the survey was completed later in the semester. These findings suggest that Hypothesis 3 was supported.

#### **Hypothesis Four**

I used the Hayes PROCESS module to determine if sex and racial demography had a jointly moderating effect on the relation between day of survey completion and scores on the IAT. PROCESS Model 3 depicts this proposed effect (see previous Figure 2). Survey completion day was entered as the independent variable, IAT D-scores were entered as the outcome variable, sex was entered as the primary moderator and racial demography was entered the secondary moderator. The results of this moderation analysis are presented in Table 8.

There was a no statistically significant moderating effect by participant sex. The 95% bootstrap confidence interval was  $-0.028$  to  $0.032$ , which included zero, indicating no moderation. Neither a moderation effect for sex ( $b = 0.00, p = .68, 95\% \text{ CI}[-0.031, 0.038]$ ), nor racial demography ( $b = -0.00, p = .91, 95\% \text{ CI}[-0.061, 0.054]$ ), on the relation between completion day and IAT D-scores was present. As a follow up, an additional linear regression was conducted to examine the relation of day of survey completion on IAT D-scores, while controlling for sex and racial demography. In this linear regression, day of survey completion was not related to IAT D-scores ( $b = 0.00, p = .81$ ). Overall, there does not seem to be a relation between the day of completion of research materials and resultant IAT D-scores; participant

scores on IAT did not statistically significant change as the semester progressed. These findings indicate that Hypothesis 4 was not supported.

Table 8

*Joint Moderation Model on IAT*

Predictor	<i>b</i>	<i>Se</i>	<i>T</i>	<i>p</i>	LLCI	ULCI
Model on IAT						
Constant	-0.40	1.31	-0.31	.76	-3.1162	2.3177
Completion Day	-0.01	0.03	-0.17	.87	-0.694	0.0590
Sex	0.06	0.71	0.08	.93	-1.4165	1.5340
PoC Identity	0.64	0.88	0.72	.48	-1.1997	2.4728
Sex x Day	0.00	0.02	0.21	.84	-0.0313	0.0381
PoC x Day	-0.00	0.03	-0.12	.91	-0.0611	0.0544
Sex x PoC	-0.20	0.47	-0.42	.68	-1.1789	0.7858
Sex x Poc x Day	0.00	0.01	0.11	.91	-0.0283	0.0315

*Notes.*  $R^2 = .36$ . IAT=Implicit Association Task; PoC= Person of Color (1=Person of Color 2= Not Person of Color); Sex (1=Male 2=Female).

**Hypothesis Five**

I used the Hayes PROCESS module to determine if course format had a moderating effect on the relation between day of survey completion and IAT D-Scores. PROCESS Model 1, depicting a simple moderation, was used. Survey completion day was entered as the independent variable, IAT D-scores were entered as the outcome variable, and course format was entered as the moderator. Participant sex and racial demography were entered as covariates due to prior research suggesting participant sex and racial demography may influence implicit racial bias (Assari, 2018; Nosek et al, 2002; Qualls et al, 1992; Sabin et al, 2009). The results of this moderation analysis are presented in Table 9.

There was a statistically significant moderating effect of course format on the relation between day of survey completion and IAT D-scores ( $b = -0.15, p = .01$ ). The 95% bootstrap confidence interval was  $-0.246$  to  $-0.044$ , which does not include zero, indicates true moderation. The addition of the interaction term explained an additional 25.3% of the total variance ( $F = 10.58, p < .01$ ).

Table 9

*Moderation of Course Format on Completion Day and IAT*

Predictor	<i>B</i>	<i>Se</i>	<i>T</i>	<i>P</i>	LLCI	ULCI
Model on IAT						
Constant	-7.48	3.10	-2.41	.04	-14.5079	-0.4530
Completion Day	0.72	0.22	3.27	.01	0.2250	1.2333
Course Format	-1.32	0.30	-4.36	.03	0.1609	2.8595
Interaction	-0.15	0.04	-3.25	.01	-0.2461	-0.0442
Sex	-0.10	0.12	-0.84	.42	-0.3629	0.1671
PoC Identity	0.11	0.10	1.10	.30	-0.1202	0.3489

*Notes.*  $N = 16$ .  $R^2 = .78$  for model. IAT= Implicit Association Task. PoC= Person of Color (1=Person of Color 2= Not Person of Color). Sex (1=Male 2=Female). Format of Course (1=Online/Distanced 2=In-person).

A simple slopes analysis was conducted to examine the moderation effect. There was a statistically significant relation ( $b = 0.15, p = .01, 95\% \text{ CI} [.048, .249]$ ) between day of survey completion and IAT D-scores in distanced/online classes, but not in-person courses ( $b = 0.00, p = .15, 95\% \text{ CI} [-.002, .008]$ ). In distanced/online classes, participants who completed the survey later in semester reported statistically significantly increased implicit racial bias while no such statistically significant increase in bias was found for in-person courses. These findings indicate that Hypothesis 5 was supported.

## CHAPTER 5. DISCUSSION

The purpose of my study was to examine the role of ethnic studies courses in reducing explicit and implicit bias. This study was designed to expand research indicating ethnic studies courses are useful in reducing explicit bias and sought to examine the effect of ethnic studies courses on the reduction of implicit bias. Prior research and theory suggest that both implicit and explicit racial bias must be considered when examining overall racial bias (Dovidio & Gaertner, 2004; Dovidio et al, 2016; Gaertner & Dovidio, 1986; Pearson et al, 2009).

I also examined the potential moderating effect of demographic variables (participant racial identity and sex) on the reduction of explicit and implicit bias. Racial identification and sex have previously been linked to explicit and implicit bias (Assari, 2018; Nosek et al, 2002; Qualls et al, 1992; Sabin et al, 2009).

Finally, research has demonstrated the increased use of distanced/online courses (Allen & Seaman, 2011). Research on classroom approaches to reducing racial bias suggest that encounter approaches might be effective to reduce implicit bias due to intergroup contact in classrooms (Dovidio & Gaertner, 2004; Gaertner & Dovidio, 2005; Dovidio et al, 2004; Lopez et al, 1998; Nagda et al, 2004; Pearson et al, 2009). However, distanced/online courses might have decreased opportunities for meaningful intergroup interaction. I examined potential differences in the reduction of implicit bias based on the course delivery format.

### **Explicit Racial Bias**

When examining participant explicit bias, European American men had significantly higher levels of explicit racial bias, as measured by Modern Racism subscale, as compared to men of color and women. This finding is consistent with the previous pattern of sex and racial differences found in other samples (Assari, 2018; Sabin et al, 2009). There were no differences

in scores on Old Fashion Racism subscale. It is possible that my sample generally found the Old Fashion Racism items to show too clear of a racial bias (McConahay, 1986), so did not endorse these items.

When examining the moderation effects of racial demography and sex, my results indicated that European American men displayed a statistically significant decrease in explicit racism as the semester progressed. While my results are in line with prior research, generalizing my findings to all European American men in ethnic studies courses should be made with great caution. I sampled only five European American men and their participation was limited to the first half of the semester. With such a small cell size, individual scores had a larger impact on results and may not actually represent what a larger, more distributed group of European American men in ethnic studies courses would report.

Importantly, on both of the subscales of MRS, participant scores in my sample ranged from 1 to 3 on (“Strongly Disagree” to “Neither Agree or Disagree”). This sample represents a sample of students with already strong to neutral explicit anti-racist beliefs. These results may suggest that European American men more strongly embraced anti-racism beliefs as the course progressed, rather than reducing racist beliefs. My results may not be generalizable to European American men in ethnic studies courses who initially hold strong racist beliefs.

Although research suggests that learning about one's own cultural background might reduce explicit bias in people of color (Bailey et al., 2014; Gibson et al., 2017; Hipolito-Delgado et al., 2014), this finding was not replicated in this study. In my sample, participants reported low scores on the Modern Racism, independent of time in the semester. It is possible that participants of color might have been impacted by the course, but this was not be reflected due to the range restriction of scores on the MRS.

### **Implicit Racial Bias**

No interaction of sex and racial identity was found in predicting implicit racial bias, as measured by IAT. When looking at main effects, racial demography was related to implicit racial bias but not sex, suggesting that sex might not factor as strongly in implicit racial bias reduction for students in ethnic studies courses. However, people of color, on the average, had lower implicit racial bias compared to their European American peers. My sample also had lower IAT D-scores ( $d = 0.48$ ) than the average D-scores in the Nosek et al. (2002) study ( $d = 0.71$ ), implying a general lack of implicit racial bias in my sample.

Neither racial demography nor sex moderated the relation between date of survey completion and implicit bias as measured by IAT. In fact, there was no evidence of students scoring significantly differently on the IAT as the semester progressed. Implicit racial bias has been demonstrated to be harder to change (Dovidio, Kawakami, & Beach, 2001; Wilson, Lindsey & Schooler, 2000), requires more concentrated efforts (Wyer & Hamilton, 1998), and is more impervious to traditional teaching methods (Dovidio et al., 2004).

The format of the course did moderate the relation between date of survey completion and implicit bias. Participants enrolled in 'in person' courses did not show changes in IAT scores across the semester. However, for those in distanced/online courses, implicit racial bias actually increased for students who took the survey later in the semester as compared to students who completed research materials earlier in the semester. Online courses have an increased level of anonymity (Phirangee & Malec, 2017; Sherblom, 2010). In-person courses may have more opportunities for meaningful interracial contact experiences which has been linked with decreases in implicit racial bias (Dovidio et al., 2004). It is possible that interracial contact might serve as a buffer to increases implicit bias, and the absence of such meaningful interactions may

be reduced within an online course environment. Regardless, analyses involving course format utilized a smaller sample ( $n = 16$ ) than other analyses. There were only 4 participants who participated in online courses, and these participants largely completed research materials at the start of the semester. Therefore, no definite conclusions can be made regarding the effect of ethnic studies course format on the reduction of implicit racial bias. Further research is needed on this issue.

### **Reduction of Racism**

Introductory ethnic studies courses are designed to give students initial and basic exposure to cultural histories and patterns. Although they may cover topics of racism, they are not designed to focus on the reduction of racism. Although the cultures under study might be impacted by racism, the lack of a direct focus on racism may help explain a general lack of change in measures of racial bias for students.

However, ethnic studies courses are often included by some universities in their general diversity course curriculum to create change in students' views on race. To meet this goal, ethnic studies courses should then reduce both explicit and implicit racial bias to avoid the maintenance of aversive racism students may possess. My results do not suggest a general significant reduction in both explicit and implicit racial bias for the students in the ethnic studies courses I sampled. However, specifically, European American men, who did reduce their explicit racial bias, they did not reduce their level of implicit racial bias. European American women did not show the course impacting their levels of racial bias, but did display a pattern of low explicit bias with slightly higher implicit bias. Students of color who participated in this study, generally, reported both low explicit and implicit racial bias, suggesting little evidence of internalized racism.



### **Limitations**

My study had several critical limitations that impact the consideration of my findings and suggest that the generalization of my results is not advisable. The existence of a self-selection bias was present. The small number of students who decided to participate in this study, may be different from the general population of students in ethnic studies courses, and the students who chose to enroll in the race-based courses I examined to satisfy their university general diversity requirements, are likely different than those students who chose other types of courses reflecting different foci of cultural diversity. Students who decided to participate in a study on racial bias may have already found the subject to be more comfortable to them and more valued by them, and brought lower explicit and implicit racial bias to their learning. In the future, investigators need to assess for the variables of comfort, preparedness, and the intrinsic value students hold toward the ethnic studies courses in which they enroll. In addition, it will be very important for investigators to, in future studies, to make a clear distinction between a *strengthening* of already anti-racist beliefs held by students, versus casting any 'reductions' in already low bias scores as 'decreasing' students' racial biases. Because the scales on the MRS are essentially bi-dimensional with a neutral midpoint, future studies should employ scales that are uni-dimensional (none to high) in rating explicit and implicit bias.

My study also had an extremely small sample size, due to overall low participation as well as severe attrition across the pre-post test methodology I used. As a result, my sampling is likely neither representative of students in the courses I examined, nor representative of the population of students who take ethnic studies courses. Due to the small sample size, analyses were conducted with very small cell sizes, affecting statistical power and inflating the possibility of outcomes being susceptible to sampling error. This was particularly true for European

American men, men of color, and students in online courses. These groups were often represented by only 4-5 participants per cell. Last, using the most recent data provided by the five of my participants who completed the end of the semester follow up survey likely heavily influenced the overall results and do not accurately reflect what all participants may have reported had the entire sample completed research materials at the end of the semester.

My study was conducted at a predominantly European American campus, situated in a predominantly European American Midwest region of the U.S.. My results cannot be generalized to more ethnically diverse areas in the United States or universities that are not predominantly European American. Especially, my findings cannot be generalized to such environments as Historically Black Colleges or Universities (HBCUs) or Hispanic-Serving Institutions (HSIs).

### **Future Directions**

Even within the context of the substantial limitations my research possesses, my study does have implications for both researchers and classroom professionals. Researchers should conduct replications of my study with larger and more culturally diverse samples to provide more confidence in the potential influence of ethnic studies courses reducing explicit and implicit racial bias. These replications should employ repeated measure designs, to gain more confidence in obtained results rather than comparing different students at the start and end points of the semester.

Various didactic elements might also influence the levels of explicit and implicit racial bias held by students. Previous research has established that meaningful interactions among students from different cultures can reduce racial bias (Dovidio et al, 2004; Nagda, 2006; Zirkel, 2008). Therefore, more active learning strategies such as group work, collaborative projects, and

structured discussions may be useful pedagogies for instructors to employ in ethnic studies courses. Related, research examining the impact of ethnic studies courses on racial bias by various ratios present of students from different cultural backgrounds should be carried out. Last, differences between in-person and online courses should be more clearly examined, particularly with respect to the potential to reduce implicit racial bias.

My study also had implications for instructors of ethnic studies courses. Instructors may want to provide students a pre-test for explicit and implicit racial bias at the start of class and adjust course material accordingly. Instructors should also be aware of the research indicating possible cultural and sex differences within their classroom as far as racial bias is concerned. As aforementioned, instructors should consider design differences in distanced/online courses to include evidence-based methods to decrease implicit bias (e.g., reducing student anonymity and increasing meaningful intergroup interactions).

### **Summary**

The results of my study suggest that students' cultural identification and sex might play an important part in the reduction of explicit racial bias. In the future, researchers and classroom instructors need to consider the impact of student demographics on changing beliefs across the duration of ethnic studies courses, as well as exploring how different teaching techniques can impact both explicit and implicit racial bias.

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## APPENDIX B. DEMOGRAPHICS

**Instructions:** Please answer the following demographic and academic questions.

1) Sex M\_\_\_\_\_ F\_\_\_\_\_ Other\_\_\_\_\_

2) Age \_\_\_\_\_

3) Year in School Freshman\_\_\_\_\_ Sophomore\_\_\_\_\_ Junior\_\_\_\_\_ Senior\_\_\_\_\_ Other\_\_\_\_\_

4) Race/Ethnicity (mark all that apply)

\_\_\_\_\_ American Indian or Alaskan Native

\_\_\_\_\_ Asian American

\_\_\_\_\_ African American (Black)

\_\_\_\_\_ Hawaiian or Other Pacific Islander

\_\_\_\_\_ Hispanic/Latinx American

\_\_\_\_\_ European American (White)

\_\_\_\_\_ Middle Eastern American

\_\_\_\_\_ Other

5) Do you consider yourself a “person of color?” \_\_\_\_\_Yes \_\_\_\_\_No

6) Are you an international student? \_\_\_\_\_Yes \_\_\_\_\_No

7) What is your declared major? \_\_\_\_\_

8) In which of the following courses are you enrolled related to your participation in this study?

9) Does the ethnic studies course in which you are now enrolled match what you consider to be your own cultural/racial background?

\_\_\_\_\_Yes \_\_\_\_\_No

10. Is the ethnic studies course in which you are currently enrolled an online course?

\_\_\_\_\_Yes \_\_\_\_\_No

## APPENDIX C. IMPLICIT ASSOCIATION TASK STIMULI

### Categorical Words

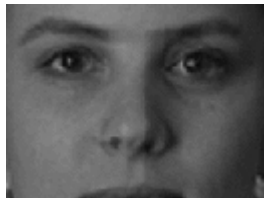
Positive	Negative
Joy	Agony
Love	Terrible
Peace	Horrible
Wonderful	Nasty
Pleasure	Evil
Friend	War
Laughter	Awful
Happy	Failure

### Examples of Face Stimuli

African  
American



European  
Americans



### APPENDIX D. MODERN RACISM SCALE

In the following section, we are interested in your attitudes and opinions. For each of the following statements please select how much you disagree or agree with each statement.

1	2	3	4	5
Strongly Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Strongly Agree

1. People of color are generally not as smart as whites. (Old Fashion)
2. I favor laws that permit people of color to rent or purchase housing even when the person offering the property for sale or rent does not wish to rent or sell it to people of color. (Old Fashion)
3. Generally speaking, I favor full racial integration. (Old Fashion)
4. I am opposed to open or fair housing laws. (Old Fashion)
5. It is a bad idea for people of color and whites to marry one another. (Old Fashion)
6. If a family of color with about the same income and education as I have moved next door, I would mind it a great deal. (Old Fashion)
7. It was wrong for the United States Supreme Court to outlaw segregation in it's 1954 decision. (Old Fashion)
8. Discrimination against people of color is no longer a problem in the United States. (Modern)
9. It is easy to understand the anger of people of color in America. (Modern)
10. People of color have more influence upon school desegregation plans than they ought to have. (Modern)
11. People of color are getting too demanding in their push for equal rights. (Modern)
12. People of color should not push themselves where they are not wanted. (Modern)
13. Over the past few years, people of color have gotten more economically than they deserve. (Modern)
14. Over the past few years, the government and news media have shown more respect to people of color than they deserve. (Modern)

**APPENDIX E. MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE-SHORT FORM**

Read each item and decide whether it is true (T) or false (F) for you.

1	2
True	False

1. It is sometimes hard for me to go on with my work if I am not encouraged.
2. I sometimes feel resentful when I don't get my way
3. On a few occasions, I have given up doing something because I thought too little of my ability
4. There have been times when I felt like rebelling against people in authority even though I knew they were right.
5. No matter who I'm talking to, I'm always a good listener.
6. There have been occasions when I took advantage of someone.
7. I'm always willing to admit it when I make a mistake.
8. I sometimes try to get even, rather than forgive and forget.
9. I am always courteous, even to people who are disagreeable.
10. I have never been irked when people expressed ideas very different from my own.
11. There have been times when I was quite jealous of the good fortune of others.
12. I am sometimes irritated by people who ask favors of me.
13. I have never deliberately said something that hurt someone's feelings