

1-1-2015

Activating Race: Race Priming in an Undergraduate Population

Amber L. Nelson

George Fox University, nelsona@georgefox.edu

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Activating Race: Race Priming in an Undergraduate Population

by

Amber L. Nelson

Presented to the Faculty of the
Graduate Department of Clinical Psychology

George Fox University

in partial fulfillment

of the requirements for the degree of

Doctor of Psychology

in Clinical Psychology

Newberg, Oregon

May, 2015

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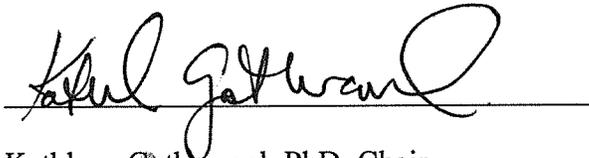
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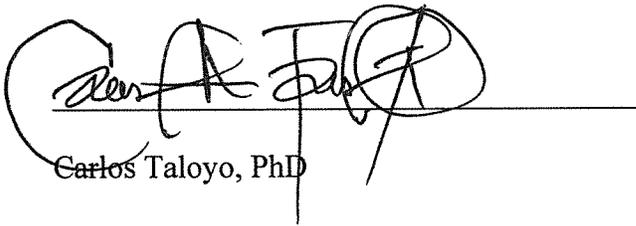
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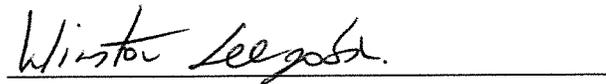
Signatures:



Kathleen Gathercoal, PhD, Chair



Carlos Taloyo, PhD



Winston Seegobin, PsyD

Date: 5/29/15

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Amber L. Nelson

Graduate Department of Clinical Psychology

George Fox University

Newberg, Oregon

Abstract

Can a race priming intervention improve evaluations of college scholarship applicants? Building on the work of Sanchez and Bonam (2009), the present study was designed to examine how evaluations of warmth, competence, and scholarship worthiness, change as a result of race priming and stereotype activation. The hypothesis was that race priming and stereotype activation would cause participants to consider how they may apply stereotypes in their judgments of candidates, resulting in a positive shift in their evaluations on dimensions of warmth, competence, and scholarship worthiness following a race priming intervention.

Participants across three studies included 228 undergraduate students, and 24 graduate students from a university in the Northwest. Students were asked to evaluate prospective student applications for a substantial diversity scholarship to the university rating candidates on dimensions of warmth, competence, and scholarship worthiness. Participants were randomly

assigned to read the scholarship application of a Biracial, White, Black, or undisclosed race candidate.

Study 1 suggests that with race introduction (via priming and disclosure) participants rate candidates differently depending upon race, particularly with regard to diversity scholarship worthiness. Biracial candidates had the most positive change in ratings after priming intervention, which is contrary to previous research (Sanchez, & Bonam, 2009). Study 2 found that race impacted ratings of warmth, competence, and scholarship worthiness regardless of whether evaluation took place before or after the intervention. Study 3 compared graduate students to the undergraduate population in Study 2. This study revealed that before the intervention, Biracial individuals were rated the highest on warmth, and competence, with White candidates being least scholarship worthy. However, after the intervention was presented, there was a drop in ratings for Black and Biracial candidates, resulting in Biracial candidates being considered least warm, and competent of all the race disclosure groups. Comparison between studies indicate a difference in how graduate students responded to the intervention and their post intervention candidate ratings, relative to undergraduates.

Results of these studies are discussed considering essentialism (Young, Sanchez, & Wilton, 2013), cohort effects, job and college applications, and stereotype content model (Cuddy, Fiske, & Glick, 2007).

Keywords: Race Priming, Stereotype, Perception, Stereotype Activation, Scholarship Worthiness

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Chapter 1

Introduction

Perceptions of Minority Individuals

There has been extensive research on stereotypes and perceptions of minority individuals over the years, starting in the 1930s with studies by Katz and Braly (1932) that indicated that “negroes” were perceived as: superstitious, lazy, happy-go-lucky, ignorant, musical, ostentatious, very religious, stupid, physically dirty, naïve, slovenly, and unreliable. Whereas the stereotypes have changed over time, and the specific adjectives chosen to accompany Black individuals have shifted, the overall tone and endorsement remains negative (Chavous, Harris, Rivas, Helaire, & Green, 2004; Devine & Elliot, 1995; Graham & Lowery, 2004; Spencer, et.al., 1998). African Americans are typically associated with negative evaluations and with the culturally defined stereotyped content (Amodio, & Devine, 2006; Blair, 2002; King & Wheelock, 2007).

There are many opportunities for evaluations to be affected by racial bias. For example, research regarding race and applications indicates that as Black racial prototypicality increased the number of jobs awarded to minorities decreased (Colarelli, Poole, Unterborn, & D’Souza, 2010; Mazzocco, Brock, Brock, Olson, & Banaji, 2006). Similarly, Bertrand and Mullainathan (2002) found that attaching names which are race-associated had a significant impact on how resumes were evaluated, such that resumes with more racially associated names were evaluated more negatively. In an expansion of Bertrand and Mullainathan’s study, researchers found that Asian American names were evaluated positively for high status jobs regardless of resume quality, White and Hispanic applicants benefitted from high quality resumes, and Blacks were

evaluated negatively, even with strong credentials (King, Madera, Hebl, Knight, & Mendoza, 2006; Remedios, Chasteen, & Oey, 2012).

Perceptions of Biracial Individuals

In the 2000 census many more options for racial identities could be endorsed and the prevalence of multiracial/biracial identification and disclosure became more prevalent. Biracial Americans have been largely misunderstood and under-researched. A substantial portion of the scholarly literature on Biracial individuals focuses on social experience as facilitative in identity development (Crawford, & Allagia, 2008; Daniel, 2002; Harris & Khanna, 2010; Jackman, Wagner, & Johnson, 2001; Sanchez, & Garcia, 2009; Sanchez & Chavez, 2010; Shih, Bonam, Sanchez, & Peck, 2007). However, some current research looks at social perception with the stereotype content model (SCM; Cuddy, Fiske, & Glick, 2007; Sanchez & Bonam, 2009). These studies suggest that when people are asked to evaluate the scholarship requests of applicants of several races, biracial individuals are perceived lower in ratings of warmth, competence, and minority scholarship “worthiness” than their monoracial counterparts (Sanchez & Bonam, 2009). Other research states that biracial individuals are perceived as awkward in social situations and highly isolated (Jackman et al., 2001).

Stereotype Content Model

The stereotype content model (SCM) “defines two fundamental dimensions of social perception, *warmth* and *competence*” (Cuddy, Fiske, & Glick, 2008, p.. 632). Cuddy and colleagues, posit that judgments of warmth and competence are the facilitating factor in perception of others and motivates the perceivers’ “emotional and behavioral reactions, all resulting from social structural relationships” (p. 633) Warmth and competence are significant

dimensions in person perception because they essentially address questions of survival in the social world. First, the warmth dimension encompasses traits of morality, trustworthiness, sincerity, kindness, and friendliness; evaluation of these traits allows an individual to assess or anticipate another's intentions toward them. Secondly, individuals assess how capable the other is in carrying out those intentions, which are understood via the competence dimension comprising of such traits as efficacy, skill, creativity, confidence, and intelligence. Essentially, perceivers distinguish targets according to the likely impact on self or ingroup as determined by perceived intentions (warmth) and capabilities (competence).

Dimensions of warmth and competence have been consistent measures in studies of person perception (Asch, 1946; Rosenberg, Nelson, & Vivekananthan, 1968; Wojciszke, Bazinska, & Jaworski, 1998), voter's ratings of political candidates (Abelson, Kinder, Peters, & Fiske, 1982; Kinder & Sears, 1981; Wojciszke & Klusek, 1996); interpretations of other's behaviors (Wojciszke, 1994), social-value orientations (Peeters, 2002), and analysis of prejudices toward specific social groups (e.g. Altermatt et al, 2003; Clausell & Fiske, 2005; Glick, 2002; Glick & Fiske, 1996; Hurh & Kim, 1989; Kitano & Sue, 1973; Lin, Kwan, Cheung, & Fiske, 2005). Much research has been dedicated to understanding these dimensions, and exploring various terms that are similar to them, such as communion and agency (Abele & Wojciszke, 2007), evaluation, potency, and activity (EPA; Osgood et al., 1957), among others. However, research indicates that dimensions of warmth and competence encapsulate the important traits of these other labels (Cuddy et al., 2008). Specifically, research indicates that people experience pity with groups individuals perceive as high in warmth and low in competence (Cuddy, Norton, & Fiske, 2002; Fiske, Cuddy, Glick, & Xu, 2002), and envy toward those groups perceived as

high in competence and low in warmth (Fiske et al., 2002). They also found that if groups are both low in competence and warmth, it elicits a sense of contempt. Further, these “emotional” responses in turn cause specific actions toward the perceived group (Cuddy et al., 2007). A solid understanding of how and where groups fall along these dimensions allows for a clearer understanding of motivation in stereotypes, perceptions, and evaluations of minority individuals.

Application Selection and Scholarship Worthiness

“Understanding access and assistance for people of mixed racial backgrounds will provide useful information on whether biracial people are viewed as ‘minority enough’ for social policies intended to support racial minorities” (Sanchez & Bonam, 2009, p. 132). Positive perceptions of biracial individuals predicted more support of social policies and increased financial assistance, whereas negative perceptions of biracial individuals predicted less support of policies and decreased financial assistance (Pittinsky & Montoya, 2009). In one study that addressed scholarship worthiness, Sanchez, & Bonam (2009) found that an individual high in warmth *and* competence were deemed most scholarship worthy, and conversely, those low in warm *and* competence were least scholarship worthy. Thus, trait evaluations (i.e., warmth and competence) of the biracial individual related to participants perceptions and evaluation of candidate scholarship worthiness. Further Sanchez & Bonam, 2009. found that biracial individuals were rated lower in warmth and competence than their monoracial counterparts. This research also indicated that warmth was related to prosocial and cooperative intergroup emotions, and competence is related to academic competence (BIAS map; Cuddy et al., 2007; Sanchez & Garcia, 2009).

Evaluations, such as college applications, scholarship profiles, and job applications, are opportunities for racially mixed individuals to disclose their ethnic and racial backgrounds, and expose the multiracial individual to vulnerability and discovery of their dual minority status (Johnson, 1992; Sanchez & Garcia 2009; Shih & Sanchez, 2005). Biracial individuals face a double-bind in which they may not be perceived as White enough to gain all the privileges of being White, but not “minority enough” to be perceived as a member of a racial minority group. The biracial individual is in a “double minority” not fitting the “in-group” of either ethnic heritage, thus being viewed as less in need, and less minority scholarship worthy than their monoracial counterparts (Johnson, 1992; Sanchez & Bonam, 2009).

Race Priming, Stereotype Activation

Briefly, literature on race bias generally includes two key components, prejudice and stereotyping (Allport, 1954; Devine, 1989; Dovidio, Brigham, Johnson, & Gaertner, 1996; Fiske, 1998; Gawronski, Cunningham, Lebel, & Deutsch, 2010; Mackie & Smith, 1998). “Where the term *prejudice* refers to negative affective responses toward outgroup members (McConahay & Hough, 1976), the term *stereotype* refers to cognitive representations of culturally held beliefs about out-group members” (Amodio, & Devine, 2006, p. 652).

Research further reveals that stereotypes can be understood to contain an underlying theory-based (i.e., “essentialist”) explanation for this relational content rather than a reflection of social groups. These theories and beliefs are typically branded essentialist when they “claim that social distinctions have deeply rooted biological underpinnings, are historically invariant and culturally universal, or that their boundaries are sharp and unsusceptible to sociocultural

shaping” (Yzerbyt, Rocher, & Schaderon, 1997, p. 22, also Haslam, Rothschild, & Ernst, 2000; Martin & Park, 1995; Yzerbyt, Rogier, & Fiske, 1998).

Research in the area of stereotyping and impression formation has made distinctions between stereotype activation and stereotype application (e.g., Brewer, 1988; Devine, 1989; Fiske & Neuberg, 1990; Gilbert & Hixon, 1991; Hamilton, 1981; Krieglmeier & Sherman, 2012). Stereotype activation addresses increasing knowledge accessibility about social groups. Whereas, stereotype application is how this knowledge is used in the perception and evaluation of a target individual or group (Gilbert & Hixon, 1991; Kunda & Spencer, 2003). In other words, a cognitive prime activates a stereotype scheme, which can then be applied to thinking about a person or group (i.e., Prime → Stereotype Activation → Stereotype Application).

Stereotypes can be activated in a number of ways: priming tasks (e.g., Correll, Park, Judd & Wittenbrink, 2002; Dovidio, Evans, & Tyler, 1986; Macrae, Bodenhausen, Milne, Thorn, & Castelli, 1997; Payne, 2001; Wittenbrink, Judd, & Park, 1997), through implicit associations (IAT; e.g., Amodio & Devine, 2006; Nosek, Banaji, & Greenwald, 2002; Rudman, Greenwald, & McGhee, 2001), or word-fragment completion (e.g., Gilbert & Hixon, 1991; Spencer et al., 1998).

Priming is an experimental manipulation whereby a category is either explicitly or implicitly activated or made salient in the participant’s mind, often with behavioral consequences. For example, racial priming occurs when people are reminded of their racial identity by being asked to state their racial identity or by reading information about their racial identity.” (Chiao, Heck, Nakayama, & Ambady, 2006, p. 388)

Research indicates that race priming can affect cognitive abilities (Aronson, Steele, Salinas, & Lustina, 1998; Chiao et al., 2006; Spencer, Steele, & Quinn, 1999; Steele & Aronson, 1995), and stereotype-threat research shows that when race is made a salient factor, it affects one's performance on academic-type tests, such as math and verbal tasks (Cheryan & Bodenhausen, 2000). When given more time, individuals were able to self-correct for activated stereotypes (Conrey, Sherman Gawronski, Hugenberg, & Groom, 2005; Payne, 2001; Payne & Bishara, 2009; Sherman et al., 2008). Race priming has been implemented in a variety of ways, including writing essays regarding ethnic identity (Chiao et al., 2006), word-associations, and visual stimuli.

Research in the area of stereotypes and human attributes indicate that individuals who believe that traits are immutable ("essentialism") are particularly prone to endorse specific stereotypes (Bastian & Haslam, 2005; Neuberg & Sng, 201). It has been found that essentialist beliefs predict endorsement of stereotypes (Bastian & Haslam, 2005; Hall, 2005). Essentialism has a variety of social consequences for social perception, social motivation, and social attitudes (Keller, 2005; Prentice & Miller, 2007). Specifically, with regard to race, essentialism research shows that those who had a biological essentialist belief were more likely to endorse African American stereotypes than were those who held social constructivist understandings of race (Williams & Eberhardt, 2006; Yzerbyt, Corneille, & Estrada, 2001). Additionally, they found that those who endorsed biological essentialist beliefs expressed less interest in cross-racial social interactions, had a less diverse group of close friends, and they saw racial disparities as more insurmountable and less problematic than those who had a social construct of race (Levy,

Stroessner, & Dweck, 1998; Prentice & Miller, 2007; Shelton & Richeson, 2005; Stangor, Lynch, Duan, & Glass, 1992; Williams & Eberhardt, 2006; Yzerbyt, Corneille, & Estrada, 2001).

Present Study

Sanchez and Bonam (2009) asked the simple question, “Are biracial people perceived more negatively than their monoracial counterparts?” (p. 131). The question arises, how can the disparity in evaluations and perceptions of minority individuals be controlled for in the application process? The literature suggests race priming as one possible means of addressing the issue. The present study utilized ratings of warmth, competences, and minority scholarship worthiness for college applicants to make it consistent with the stereotype content model (SCM).

Building on the work of Sanchez & Bonam (2009), the present study was designed to examine how evaluations of warmth, competence, and scholarship worthiness for candidates of various races, change with some interim race priming and stereotype activation. The hope was that with race priming, and stereotype activation, that participants would consider more carefully how they might have applied stereotypes in their judgments of candidates, resulting in a positive shift in their evaluations on the dimensions of warmth, competence, and scholarship worthiness after the priming intervention.

Overview of Hypotheses

Hypothesis 1. Prior to explicitly making race a salient factor, through race priming, there would be significant differences in participants’ ratings of candidates of different race disclosure groups (i.e. African American, Biracial, Caucasian, of an undisclosed race), with biracial candidates scoring lowest on ratings of warmth, competence, and scholarship worthiness. This is to say that there will be a difference between groups before the priming intervention.

Hypothesis 2. After the race priming intervention, participants' ratings would become more similar across race disclosure groups (i.e., African American, Biracial, Caucasian, candidate of an undisclosed race) and there would be no significance difference in ratings of disclosure groups on perceptions of candidate warmth, competence, and scholarship worthiness. Simply put, after intervention the groups will be more similar across the three dimensions.

Hypothesis 3. After the priming intervention, participants' ratings of candidate warmth, competency, and scholarship worthiness would be significantly different for minority races when comparing same race disclosures before and after intervention. For instance, biracial ratings were expected to be significantly more positive after priming when compared to pre-intervention ratings of the biracial candidate (Table 1). Otherwise stated, there would be a difference in ratings within race disclosure groups after intervention.

Hypothesis 4. It was anticipated that the priming intervention would not impact the ratings of warmth, competence, and scholarship worthiness of the undisclosed race candidates, resulting in no significant difference among the group (Table 1). In other words, the undisclosed group will not be impacted by the intervention.

Table 1

Hypothesis 3 and 4 Outlined across Dimensions by Race before and after Intervention

	Before Intervention	Hypothesis	After Intervention
Within Subjects Pairs	Non-Disclosed	No Significant change	Non-Disclosed
	White	No Significant change	White
	Black	Significant Change	Black
	Biracial	Significant Change	Biracial

Chapter 2

Three Studies

Study 1

This study compares evaluations of scholarship applicants by current college students attending an undergraduate university. The scholarship candidates' race was varied across groups (varying their race disclosures between; African American, Biracial, Caucasian, and of an undisclosed race) and they were rated on dimensions of warmth, competence, and diversity scholarship worthiness.

Method

Participants were 148 undergraduates (63.5% female, $n = 94$) from a private university in the Northwest. Participants were members of an introductory psychology subject pool, who participated in exchange for required research credit. The ethnicity of participants was 75% white. According to the University's website, 29.9% of the student body is non-white (therefore 70.1% white). The mean age of participants was 19.28 ($SD = 2.29$) with a mode of 18, and a positive skew (skew = 4.30, SE skew = 0.20) with 19 people over the age of 21. The modal year in school was first-year ($M = 1.68$, $SD = 0.93$), with a significant positive skew (skew = 1.47, SE skew = 0.20) and nine people beyond third year. Degree concentrations varied, with most frequently occurring majors being Nursing ($n = 21$), Athletic Training ($n = 20$), Biology ($n = 12$), and Elementary Education ($n = 12$).

Participation was solicited after an unrelated guest lecture on social psychology by the primary researcher. Subjects were given approximately 15 minutes to complete the online survey in class. Based on the mean of 15 randomly selected timestamps, the average time to complete the survey was 5:08 minutes.

Procedure and Measures. Participants were asked to evaluate prospective student application profiles for warmth, competence, and worthiness for a substantial diversity scholarship to the university. The study is best described in five steps.

Step 1: Pre-intervention undisclosed race candidate profile presented. In this first step, participants (raters) were given one candidate profile and asked to evaluate for undergraduate admission to George Fox University. The candidate was described as an 18-year-old male, with various good academic qualities (e.g., 2130 SAT score, 4.0 GPA, and various extracurricular and sports activities) (Sanchez, et al, 2009). Candidates' race was undisclosed for all the participants.

Step 2: Rating warmth, competence, scholarship worthiness, and admission criteria. In Step 2, participants were asked questions about how they perceived the scholarship candidate on the SCM dimensions of warmth (warm, good-natured, sincere, and trustworthy), and competence (capable, efficient, organized, and skillful), on a scale from 1 (*not at all*) to 7 (*extremely*). These traits have been used in previous research and found to be reliable in SCM research as well as disclosure research (Cuddy, Fiske, & Glick, 2007 Sanchez & Bonam, 2009).

Participants were also told that exceptional candidates would qualify for a diversity scholarship to subsidize the cost of tuition, books, and living expenses. As in the Sanchez and Bonam (2009) study, participants were asked to rate their level of agreement with the following statements on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*) to determine diversity

scholarship worthiness: “I believe this candidate should be awarded a selective scholarship for minority students,” “I am extremely confident that this candidate deserves a minority scholarship,” and “If I only had one minority scholarship to give, this candidate would be my first choice for the minority scholarship.” This scale was used and found reliable in previous research (Sanchez & Bonam, 2009). Additionally, the participants were asked about the importance of other admissions criteria in decision-making (e.g. SATs, GPA, Letters of Recommendation, etc.; Sanchez & Bonam, 2009).

Step 3: Race priming intervention. In the *intervention* step, participants answered eleven short questions designed to prime subjects for race, race activation, white privilege, and essentialist thinking. The participants were asked to rate their agreement with 11 statements on a scale of 1 (*not at all*) to 7 (*extremely*) from the abbreviated essentialism questionnaire (Young et al., 2013) (see Appendix A). This measure has been used and validated through previous research (Sanchez, 2009; Cuddy et al., 2007). Questions are used as a means of race priming due to their high face validity as it relates to stereotype activation, and its validity in previous race-related research. Additionally, participant demographics (i.e. age, year, major, ethnicity, gender) were also collected during this step.

Step 4: Post-intervention a second scholarship candidate of a randomly assigned race was rated. In the *post-intervention* step (4) the participant was asked to evaluate another prospective candidate’s application profile on the same dimensions of warmth, competence, scholarship worthiness, and other admission criteria. The candidate profile was systematically identical to the first candidate evaluated in the pre-activation phase, as validated by a piloted comparison study. The candidate was described as a 19-year-old male with various good

academic qualities (e.g., 2130 SAT score, 4.0 GPA, and various extracurricular and sports activities) as in Step 1. However, in this condition, the candidate's race was disclosed; participants were randomly assigned to one of four candidate race disclosures: African American ($n = 37$), Caucasian ($n = 43$), Biracial ($n = 34$), or undisclosed ($n = 33$).

Step 5: Rating warmth, competence, scholarship worthiness, and admission criteria repeated for the second scholarship candidate. In this final step, questions evaluating dimensions of warmth, competence, scholarship worthiness, and other admission criteria were repeated in the same way as Step 2. Rating from 1 (*not at all*) to 7 (*extremely*), and level of agreement from 1 (*strongly disagree*) to 7 (*strongly agree*).

Results and Discussion

Hypothesis 1: *If we start from a neutral place, do individuals perceive candidates similarly on dimensions of warmth, competence, diversity scholarship worthiness, and other admission criteria?*

To answer simply, yes. Prior to the intervention and when all were asked to rate a scholarship candidate whose race was not disclosed, participants were treated as four groups based on the race disclosure condition to which they were assigned post-intervention. The mean ratings of four dimensions for each group for the candidate of undisclosed race (candidate 1) are shown in Table 2. A 4 x (4) ANOVA determined there were significant differences in response to the dimensions of warmth, competence, scholarship worthiness, and admission criteria, Greenhouse-Geiser $F(2.18, 311.71) = 80.80, p < .001$. However, the four groups responded similarly across all dimensions, $F(3, 143) = .22, p = .88$, and there was no interaction between

group (based on post-intervention race disclosure) and how they responded to the dimensions

$F(6.54, 311.71) = .76, p = .62$. Thus, these groups are comparable in their ratings before priming.

Table 2.

Mean Ratings of Four Scholarship Dimension for two Candidates, one of Undisclosed Race before a Race-Priming Intervention and the Other after

Dimension	Race Disclosure Of Candidate 2	Rating of Candidate 1 (pre)		Rating of Candidate 2 (post)	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Warmth	White	5.40	1.11	5.59	1.08
	Black	5.09	1.27	5.38	1.04
	Undisclosed	5.47	1.05	5.76	.90
	Biracial	5.38	.95	5.63	.99
Competence	White	5.33	1.10	5.58	1.01
	Black	6.42	.64	6.27	.63
	Undisclosed	6.09	1.09	6.09	.86
	Biracial	6.23	.92	6.14	.79
Scholarship Worthiness	White	6.34	.67	6.15	.72
	Black	6.27	.84	6.17	.74
	Undisclosed	4.60	1.42	4.85	1.44
	Biracial	4.64	1.18	4.99	.96
Other Criteria	White	4.61	1.37	4.65	1.32
	Black	4.29	1.31	5.04	1.27
	Undisclosed	4.54	1.32	4.89	1.26
	Biracial	5.36	.87	5.47	.90

Note: African American ($N = 37$), Caucasian ($N = 43$), Biracial ($N=34$), Undisclosed ($N = 33$)

Hypothesis 2: *After race priming is introduced, do raters respond differently to race disclosures on the dimensions of warmth, competence, diversity scholarship worthiness, and other admission criteria?*

Again, the simple answer is yes. Utilizing the 2(times) x 4(dimensions) x 4(candidate races) repeated-measures ANOVA, we found that there were significant differences in the way participants responded to the first candidates (whose race was not disclosed) and the second candidate. The mean ratings of four dimensions for each group are shown in Table 2. The summary of the ANOVA results are shown in Table 3. The most important part of the analysis to answer this questions is the three-way interaction (i.e. Dimension*Time*Candidate) which indicates that there are significant differences in the ratings of some dimensions, before and after priming, but only when the second candidate was of some race (and not for others).

Table 3.

ANOVA Summary Table from Study 1

Source	df 1	df 2	F	Sig.	Eta Squared	Effect size
Dimensions ^a	2.24	319.89	91.70	<.001	.391	large
Candidate 2 race ^a	3	143	0.21	.89	.004	none
Time	1	143	16.52	<.001	.104	medium
Dimensions*Candidate ^a	6.71	319.89	0.75	.62	.016	small
Time*Candidate ^a	3	143	0.62	.60	.013	small
Dimension*Time ^a	2.48	354.54	11.89	<.001	.077	medium
Dimension*Time*Candidate ^a	7.44	354.54	2.11	.04	.042	medium

Note: ^a The assumption of sphericity was not met, so a Greenhouse-Geisser correction to the ANOVA was employed for this analysis.

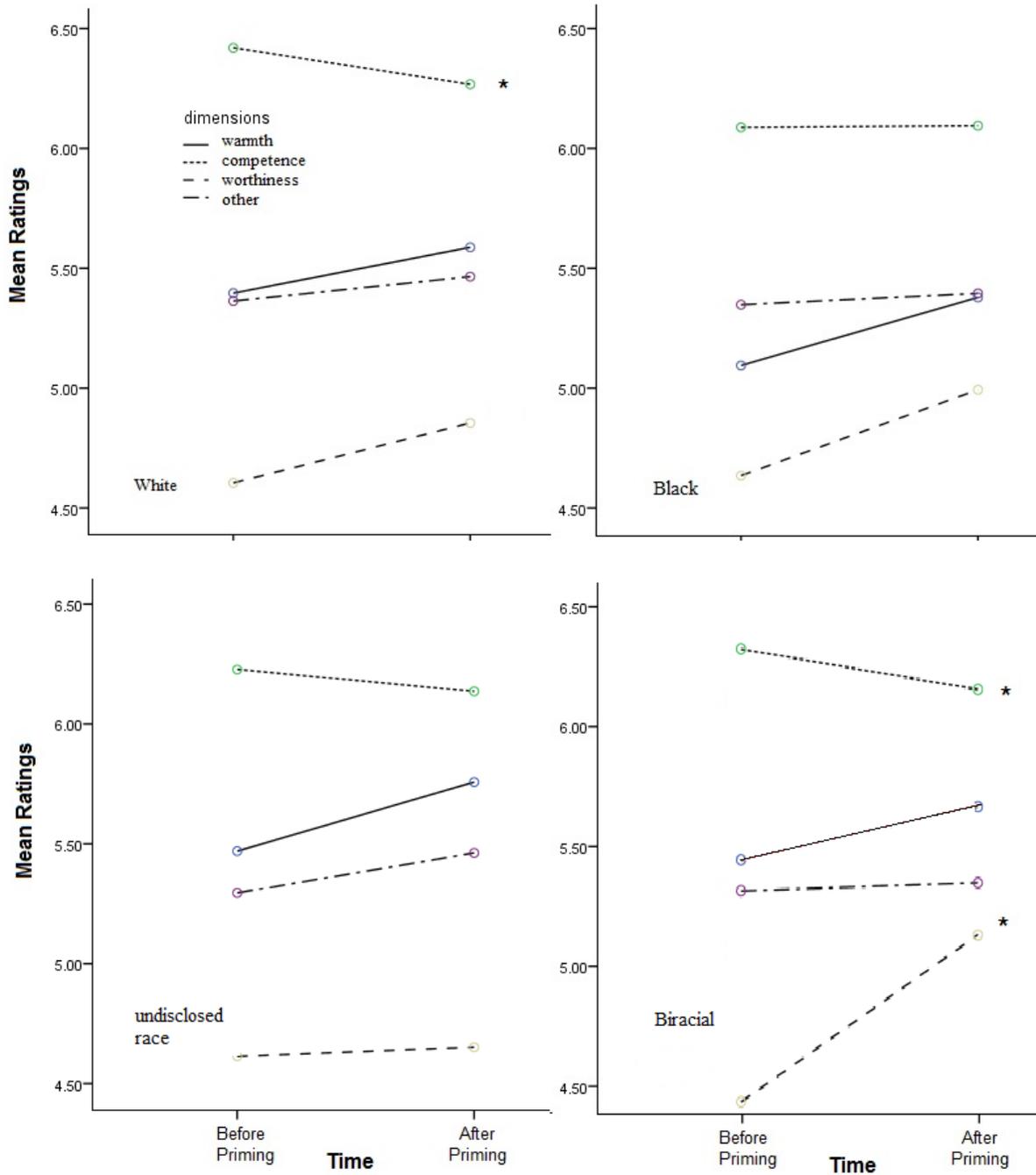


Figure 1. The change in dimension ratings of Warmth, Competence, Scholarship Worthiness, and Other Scholarship attributes, before and after priming is shown. Before priming the candidates' race was not mentioned. Each quadrant shows the ratings of groups with different post-priming candidate races.

In order to tease apart the three-way interaction, four 2(times) x 4(dimensions) ANOVAs were conducted, one for each candidate 2 race disclosure group. These four ANOVAs explores the change of dimension ratings before and after priming for each race disclosure group separately. Figure 1 shows a composite of four figures, one for each race disclosure group. In each figure the change in dimension ratings before and after priming is shown. The four ANOVAs and follow-up repeated-measures t-tests indicate that dimension ratings before and after priming only changed in conditions in which the second candidate was White or Biracial, and only changed for the dimensions of competence and scholarship worthiness. Interestingly, Competence ratings decreased significantly for both the White candidate, $t(42) = 2.07, p = .04$, and the Biracial candidate, $t(33) = 2.78, p = .01$. And, Scholarship Worthiness ratings increased significantly for the Biracial candidate, $t(33) = -4.11, p < .001$.

Summary

In its essence Study 1 indicates that before any differentiating information is presented (i.e. when all participants read about a candidate of undisclosed race) participants rated candidates similarly across dimensions of warmth, competence, and scholarship worthiness. However, once race is introduced, through priming and a disclosure about the second candidate's race, we begin to see differences in the way in which participants rated candidates of different races, particularly when it came to perceived competence and diversity scholarship worthiness. The most significant outcome is that for scholarship worthiness, Biracial candidates had the most positive change in relation to the undisclosed candidate. This has compelling implications because previous research indicated that Biracial individuals are generally seen as less warm, competent, and scholarship worthy than their monoracial counterparts (Sanchez & Bonam, 2009).

This would indicate that the race priming-race activating intervention likely had an impact on this change.

However, I am left with the question, how would participants have responded to the race disclosure of candidates *prior* to the priming intervention? In order to address this question, a second study with undergraduates at George Fox University was conducted.

Study 2

Study 2 is an attempt to address the question of how participants would respond to race disclosure candidates before they are introduced to a priming intervention. The methodology of Study 1 was modified by randomly assigning the race disclosures (Caucasian, African American, undisclosed, or Biracial) for the first candidate profile. The race disclosure of the second candidate remained consistent with the first. The applicant candidates were again rated on dimensions of warmth, competence, diversity scholarship worthiness, and other admission criteria.

Method

Participants were 78 undergraduates (63.5% female, $n = 49$) from a private university in the Northwest. Participants were recruited from the psychology subject pool and they participated in exchange for required research credit. The ethnicity of participants was 60% white ($n=36$). The modal participant age was 18 ($M = 19.41$, $SD = 1.02$), and the modal year in school was the first year ($M = 1.83$, $SD = .89$). Degree concentrations varied, with most frequently occurring majors being Nursing ($n = 27$ s), Biology ($n = 9$), and Exercise Education ($n = 7$).

Participation was solicited after an unrelated guest lecture on social psychology by primary researcher. Subjects were given approximately 15 minutes to complete the online survey in class. Based on the mean of 15 randomly selected timestamps, the average time to complete the survey was approximately 7.4 minutes.

Procedure and Measures

Step 1: Pre-intervention with randomly assigned race candidate profile presented.

In this first step, raters were given the same first-candidate profile as participants in Study 1 received, however, this time with a randomized race disclosure: African American ($n = 24$), Caucasian ($n = 12$), Biracial ($n = 20$), or undisclosed ($n = 22$).

Step 2: Rating warmth, competence, scholarship worthiness, and admission criteria.

In step 2, raters were asked the same questions regarding how the candidate was perceived on the dimensions of warmth, competence, diversity scholarship worthiness, and other admissions criteria.

Step 3: Race-matching and reading check. This is a change in methodology from Study 1. In this step, participants were asked to recall four characteristics of the first candidate profile (i.e., age, gender, ethnicity, and sport) to check how well they attended to those details. Answers to the question of ethnicity were used as the matched-race disclosure for Candidate 2. There were 18 who incorrectly identified candidate races (i.e., mis-matched Candidate 1 and 2 races), and those participants were dropped from the sample. The race of 83.3% of the African American candidates were correctly identified ($n = 20$), 83.3% of Caucasian candidates were correctly identified ($n = 10$), 70% of Biracial candidates were correctly identified ($n = 14$), and

72% of undisclosed race candidates were correctly identified ($n = 16$). Therefore 60 subjects correctly identified the race of candidate 1 in this step and were used as the sample.

Step 4: Race priming intervention. No changes were made to the intervention, and questions utilized to prime and activate race were rated, and participant demographics were collected.

Step 5: The second candidate profile presented. The *post-intervention* step (5) asked the participant to read about a second scholarship candidate whose race-matched the first candidate. Participants were given the same second-candidate profile as participants in Study 1 received

Step 6: Rating the four dimensions for the second candidate. Ratings of warmth, competence, scholarship worthiness, and admission criteria were completed for Candidate 2. Questions from Step 2 were repeated.

Results and Discussion

Hypothesis 1: Before priming, was there a difference in the way participants responded to race disclosures on dimensions of warmth, competence, and diversity scholarship worthiness?

When checking the assumptions some conditions showed negative skew in rating of the four dimensions. However, since all skew was negative, and the General Linear Model is robust under these conditions, an ANOVA was employed. Further, the assumption of sphericity was not met, Mauchly's $W(5) = .66$, $p < .001$, therefore a Greenhouse-Geisser correction to the ANOVA was used to analyze the hypothesis.

Yes. The mean ratings of four dimensions for each group are shown in Table 4. A $4 \times (4)$ ANOVA on the pre-priming data determined there were significant differences in response to the

dimensions of warmth, competence, scholarship worthiness, and admission criteria, $F(2.48, 136.64) = 49.49, p < .001$. Although there was no main effect of the candidate's race disclosure, $F(3, 68) = 2.27, p = .09$, there was a significant interaction between dimension and race

Table 4

Mean Ratings of Warmth, Competence, Scholarship Worthiness, and Other Admissions Criteria, Before and After Priming, for Candidates of Different Races by Undergraduate Students

	Race Disclosure			
	White	Black	Undisclosed	Biracial
Warmth - Pre	5.70 (1.01)	5.81 (1.01)	5.22 (1.45)	5.71 (1.03)
Warmth - Post	5.33 (1.01)	5.68 (1.14)	5.34 (1.23)	5.71 (1.0)
Competence - Pre	6.65 (0.63)	6.55 (0.48)	5.94 (1.49)	6.73 (0.51)
Competence - Post	6.70 (0.40)	6.06 (0.76)	5.69 (0.72)	6.52 (0.72)
Scholarship Worthiness – Pre	3.83 (1.48)	5.14 (0.93)	4.25 (1.06)	5.05 (1.18)
Scholarship Worthiness – Post	3.30 (0.93)	5.23 (0.94)	4.41 (0.78)	5.18 (1.27)
Other Criteria - Pre	5.58 (0.64)	4.98 (0.77)	5.03 (0.68)	5.12 (0.8)
Other Criteria - Post	5.68 (0.70)	5.01 (1.01)	4.95 (0.68)	5.22 (0.80)

Of the first candidate, $F(7.43, 136.64) = 2.51, p = .02$. This interaction indicated that the race disclosure impacted the ratings of some dimensions, but not others. Four one-way ANOVA's were used to compare the participants' responses to candidates of different races on each dimension. The Results indicate that ratings did not differ as a function of candidate race on dimensions of Warmth $F(3, 56) = .88, p = .46$; Competence, Brown-Forsythe $F(3, 27.72) = 2.56, p = .08$; and Other Admission Criteria, $F(3, 56) = 1.55, p = .21$. The only dimension on which participants responded differently to candidates of different races was that of Scholarship Worthiness $F(3,56) = 4.30, p = .01$ (see Figure 2).

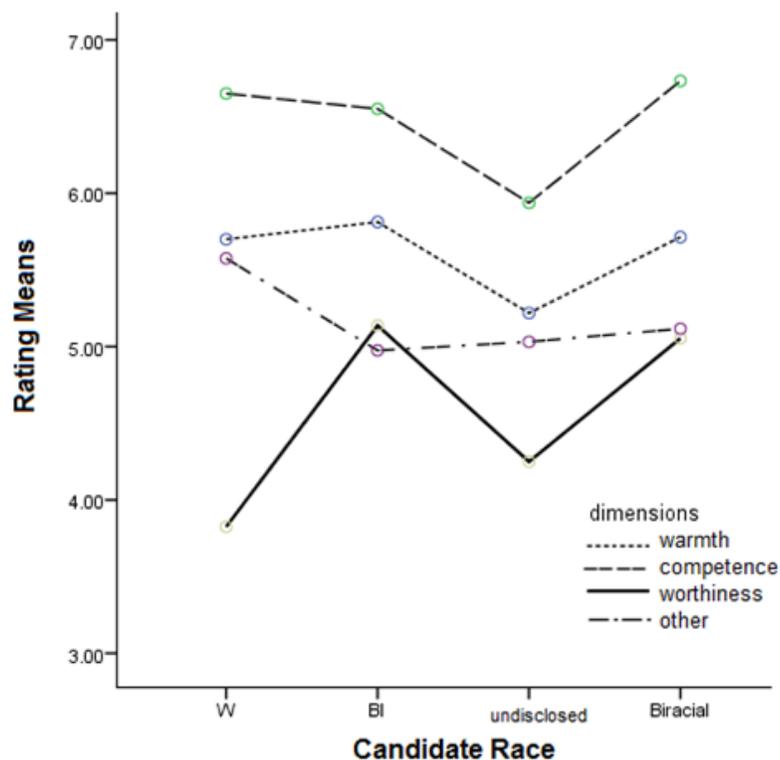


Figure 2. Dimension ratings as a function of candidate race, pre-intervention.

A Bonferroni post hoc test was used to reveal how race influenced the ratings of scholarship worthiness. It showed that Black candidates were rated as significantly more scholarship worthy than White candidates, $t(28) = -2.99$, Bonferroni $p = .02$. Looking at the graph and a t-test it appears that the White and Biracial candidates also differed, however with the Bonferroni correction, the White-Biracial comparison just missed significance $t(28) = -2.26$, Bonferroni $p = .07$.

So participants rated candidates similarly when using the dimensions of warmth, competence, and admission criteria, regardless of candidate race. However, when deciding whether or not a candidate was worthy of a diversity scholarship, race disclosure was a more salient factor for participants. Specifically, Black candidates were rated as most scholarship worthy, while the other race disclosures (White, Biracial, and undisclosed) were not statistically different from one another on this dimension.

Hypothesis 2: *Did the overall dimension ratings of the different race disclosure candidates become more similar after the intervention?*

When checking the assumptions some conditions showed negative skew in rating of the four dimensions. However, since all skew was negative, and the General Linear Model is robust under these conditions, an ANOVA was employed. Further, the assumption of sphericity was not met, Mauchly's $W(5) = .82$, $p = .05$, therefore a Greenhouse-Geisser correction to the ANOVA was used to analyze the hypothesis.

Yes. The results were similar to the pre-intervention data. The mean ratings of four dimensions for each group are shown in Table 4. Here the (4)x4 ANOVA also indicate that the participants responded significantly differently on the four dimensions, $F(3, 168) = 46.94$, p

< .001. Again, the way in which they perceived candidates was not significantly impacted by the candidate's race disclosure, $F(3, 56) = 1.91, p = .14$, however, there was a significant interaction between dimension and candidate race, $F(9, 168) = 6.00, p < .001$. This interaction indicates that the race disclosure did impact the ratings of some dimensions, but not others. To determine which dimensions were impacted by race disclosure four one-way ANOVA's were again used to compare the participants' responses on the dimension across all the race disclosures. Again, as in the pre-priming condition, the dimensions which did not differ were Warmth, $F(3, 56) = .49, p = .69$, and Other Admission Criteria, $F(3, 56) = 1.85, p = .14$. However participants did respond significantly differently as a function of candidate race to dimensions of Competence, Brown-Forsythe $F(3, 36.74) = 3.82, p = .02$, and Scholarship Worthiness $F(3,56)= 10.16, p < .001$ (see Figure 3).

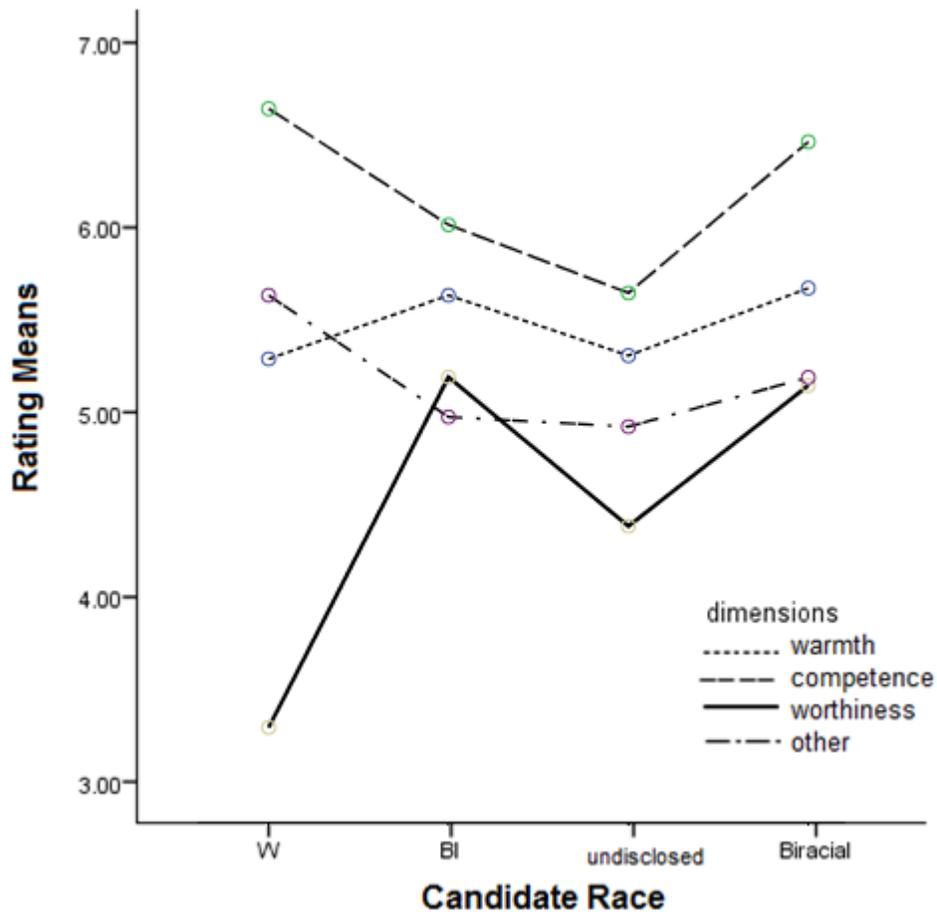


Figure 3. Dimension ratings as a function of candidate race, post-intervention.

A Bonferroni post hoc test was used to reveal how race influenced the ratings of Competence and Scholarship Worthiness. For the dimension of Competence the only ratings that differed significantly were for White and Undisclosed-race candidates, Welch's $t(19.09) = -2.85$, Bonferroni $p = .04$. Whereas for the dimension of Scholarship Worthiness, all the race disclosures were significantly different from the White candidate; White versus Black, $t(28) = -5.32$, Bonferroni $p < .001$; White versus Undisclosed, $t(24) = -3.28$, Bonferroni $p = .003$; White versus Biracial, $t(22) = -3.98$, Bonferroni $p = .001$.

In sum, we found that participants evaluate candidates similarly when comparing dimensions of warmth, and admission criteria, regardless of candidate race. However, for scholarship worthiness, all race disclosures (Black, Biracial, and undisclosed) did in fact become more similar after the intervention, with the exception of White candidates who maintained their status as least favorable for a diversity scholarship (Figure 3).

Hypothesis 3: *Was there significant change within race disclosure groups after the intervention? In other words did the Caucasian candidates ratings decrease while the African American and Biracial candidate's ratings increase? And did the undisclosed race candidate's ratings remain unchanged?*

When checking the assumptions some conditions showed negative skew in rating of the four dimensions. However, since all skew was negative, and the General Linear Model is robust under these conditions, an ANOVA was employed. Further, the assumption of sphericity was not met, Mauchly's $W(5) = .76, p = .01$, therefore a Greenhouse-Geisser correction to the ANOVA was used to analyze the hypothesis.

No. The ANOVA results indicate that there is a difference in how participants respond to the various dimensions (Warmth, Competence, Scholarship Worthiness, and Other admission criteria) $F(2.62, 146.44) = 60.24, p < .001$, but there is no overall impact of race $F(3, 56) = 2.57, p = .06$. However, the interaction between race and dimension, $F(7.85, 146.44) = 4.81, p < .001$, overrides the main effect, which indicates that participants respond differently to different dimensions according to race, as we saw in the previous analyses. However, specific to this hypothesis, there is no main effect of time (Pre-intervention vs. Post-intervention), $F(1, 56) = .92, p = .34$. Nor are there any interactions with time. Specifically, the interaction of time and

dimension was not significant, $F(2.44, 136.40) = 1.31, p = .28$; the interaction of time and candidate race was not significant, $F(3, 56) = .28, p = .84$; and most importantly the three-way interaction of time and dimension and candidate race was not significant, $F(7.31, 136.40) = 1.28, p = .26$ (Table 4).

In the end, this study indicates that the priming intervention did not have an impact on how participants responded to candidates of different races. This study did support the notion that different dimensions, especially diversity Scholarship Worthiness, depend on the candidates' race disclosure, but having a race activating/priming intervention before the review of a candidate profile had no effect on how the participants responded to them. These results are inconsistent with previous research (Chiao et al., 2006; Cuddy et al., 2007; Cuddy, et al, 2008; Deutsch, & Gawronski, 2009; Sanchez & Bonam, 2009), that indicate that race activation generally elevates individuals' perceptions of others (Bastian & Haslam, 2005; Krieglmeier & Sherman, 2012; Kunda & Spencer, 2003; Levy et al., 1998; Macrae et al., 1997; Petty, Wegner, & Fabrigar, 1997; Sanchez & Bonam, 2009). We also found discrepant results from the Sanchez & Bonam (2009) study, that indicated that Biracial candidates were seen as less scholarship worthy than the other race disclosures. This may be due to a few different factors. One factor may be the demographic characteristics of the current sample, which can be described as culturally conservative, middle-class, and predominantly white students. This is likely quite different than the demographics at Rutgers, where the Sanchez & Bonam,(2009), sample was recruited. Additionally, undergraduate in the current sample attend a university that participates in a diversity scholarship program that highlights individuals' leadership potential, regardless of race. This may have been a factor that impacted how the students in the current sample rated

candidates. Another possible factor in the discrepant results are that the present study did not specify the mix of the Biracial candidate, where previous studies (Sanchez & Bonam, 2009) compared Black/White Biracial and Asian/White Biracial candidates. This too may have impacted the way in which participants rated candidates.

In review of the results of this study, I could not help but wonder whether another sample, perhaps an older demographic, would respond to the candidates and intervention differently. As a result, a third and final study was conducted to address this question.

Study 3

Study 3 is an attempt to address the question of whether a sample, with demographic characteristics different from the undergraduates in Studies 1 and 2, would respond differently to the priming intervention and race disclosure candidates. No changes in the methodology from Study 2 were made in this data collection.

Method

Participants consisted of 24 students from the graduate department of counseling (63.5% female, $n = 24$) at a private university (George Fox University) who volunteered in exchange for a chance to win a \$20 Amazon gift card. The ethnicity of participants was 95.83% white ($n = 23$). The average participant age was 34.21 ($SD = 11.32$). Degree concentrations varied, with Master's in Mental Health Counseling being the most frequently occurring degree ($n = 14$), Masters in Marriage and Family Therapy ($n = 5$), Doctor of School Psychology ($n = 4$) and Masters in School Counseling ($n = 2$).

Participation was solicited via an e-mail forwarded by program director and made available on the program's intranet communication site. Participants were told the survey took approximately 15 minutes to complete. Based on the mean of 15 randomly selected timestamps, the average time to complete the survey with this population was approximately 10:48 minutes.

Procedure and Measures

Steps 1 through 6 from Study 2 were repeated with no change in methodology.

Results and Discussion

Hypothesis 1: Before priming, was there a difference in the way participants responded to race disclosures on dimensions of warmth, competence, and diversity scholarship worthiness?

When checking the assumptions some conditions showed negative skew in rating of the four dimensions. However, since all skew was negative, and the General Linear Model is robust under these conditions, an ANOVA was employed. Further, the assumption of sphericity was not met, Mauchly's $W(5) = .96$ $p = .01$, therefore a Greenhouse-Geisser correction to the ANOVA was used to analyze the hypothesis.

Yes, these results are comparable to those in Study 3. The mean ratings of four dimensions for each race group are shown in Table 5. Here the ANOVA results indicate that the participants responded significantly different to candidates on the four dimensions (Warmth, Competence, Scholarship Worthiness, and Other Admission Criteria), Greenhouse-Geisser $F(3,60, 20) = 29.91$, $p < .001$. There was also a significant effect of candidate race, Greenhouse-Geisser $F(3,20, 60) = 3.22$, $p < .04$, and a significant interaction between the candidate race and how the participants rated them on the various dimensions, Greenhouse-Geisser $F(9, 60) = 2.67$, $p = .01$ (Figure 4).

Table 5

Mean Ratings of Warmth, Competence, Scholarship Worthiness, and Other Admissions Criteria, Before and After Priming, for Candidates of Different Races by Graduate Students

Dimension	Time	Candidate Race			
		White	Black	Undisclosed	Biracial
Warmth	pre	4.75 (1.20)	5.32 (1.07)	4.37 (.59)	5.80 (1.30)
	post	3.75 (.92)	4.14 (.90)	3.71 (.62)	3.30 (1.64)
	ES	.94 (large)	1.19 (large)	1.09 (large)	1.69 (large)
Competence	pre	5.50 (1.23)	6.07 (.87)	6.30 (.33)	6.55 (.45)
	post	5.37 (1.18)	5.86 (1.0)	5.92 (.49)	5.20 (2.40)
	ES	.11 (no effect)	.22 (small)	.91 (large)	.78 (medium)
Scholarship Worthiness	pre	2.79 (1.20)	5.03 (.94)	4.00 (.67)	4.90 (1.81)
	post	2.83 (1.24)	5.14 (1.03)	4.12 (.67)	4.95 (1.65)
	ES	-.03 (no effect)	-.11 (no effect)	-.18 (no effect)	-.03 (no effect)
Other	pre	4.77 (0.56)	5.37 (.55)	4.54 (.54)	5.08 (.79)
	post	4.56 (0.76)	5.27 (.77)	4.58 (.48)	5.08 (.70)
	ES	.31 (small)	.15 (no effect)	-.08 (no effect)	0 (no effect)

When four one-way ANOVAs were run to compare the responses of the different race disclosure candidates on each of the dimensions. The only dimension that differed based on race was Scholarship Worthiness, Brown-Forsythe $F(3,10.74) = 4.21, p = .03$. Dimensions of Warmth. ($F(3, 20) = 1.96, p = .16$), Competence, Brown-Forsythe $F(3, 11.6) = 1.76, p = .21$, and Other Admission Criteria, $F(3, 20) = 2.28, p = .11$, were not significantly different based on race.

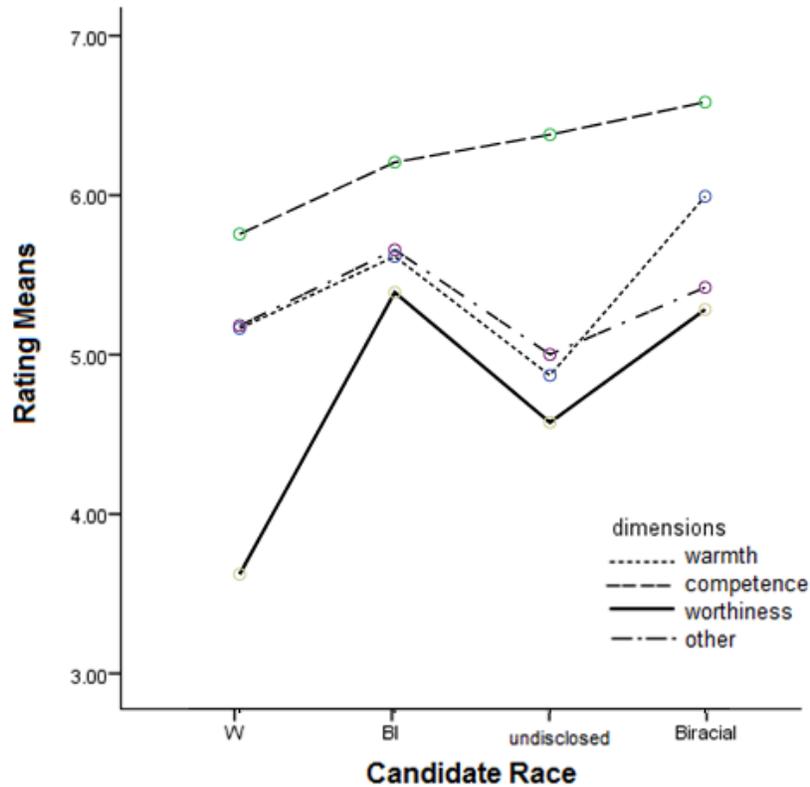


Figure 4. Pre-Intervention Graduate Student Ratings of candidates of four races.

Additionally, a Bonferroni post hoc test was used to evaluate how race influenced ratings of Scholarship Worthiness. As expected, ratings for White candidates were significantly lower than for Black candidates $t(11) = -3.79$, Bonferroni $p = .02$, and Biracial candidates, $t(9) = -2.32$, Bonferroni $p = .047$ before the intervention.

Simply put, the present study found that participants from the Masters program rated candidates just as the undergraduates from Study 2 had prior to the introduction of intervention.

Hypothesis 2: *Did the overall dimension ratings of the different race disclosure candidates become more similar after the intervention?*

When checking the assumptions some conditions showed negative skew in rating of the four dimensions. However, since all skew was negative, and the General Linear Model is robust under these conditions, an ANOVA was employed. Further, the assumption of sphericity was not met, Mauchly's $W(5) = .15, p < .001$, therefore a Greenhouse-Geisser correction to the ANOVA was used to analyze the hypothesis.

Yes. The post-priming mean ratings of four dimensions for each candidate race group are shown in Table 5. These means are also shown in Figure 5. The (4) x 4 ANOVA shows that there is still a significant effect of dimension, Greenhouse-Geisser $F(1.44, 28.77) = 15.85, p < .001$, but after the intervention there is no significant effect of race, $F(3, 20) = 2.15, p = .13$, and there is no interaction between dimension and race, Greenhouse-Geisser $F(4.32, 28.77) = 1.68, p = .18$. The one dimension that differed again, was Scholarship Worthiness $F(3,20) = 4.94, p = .01$ (see Figure 5). A Bonferroni post hoc indicates that White candidates were rated significantly lower on Scholarship Worthiness than Black, $t(11) = -3.67$, Bonferroni $p = .01$, and Biracial candidates, $t(9) = -2.43$, Bonferroni $p = .04$.

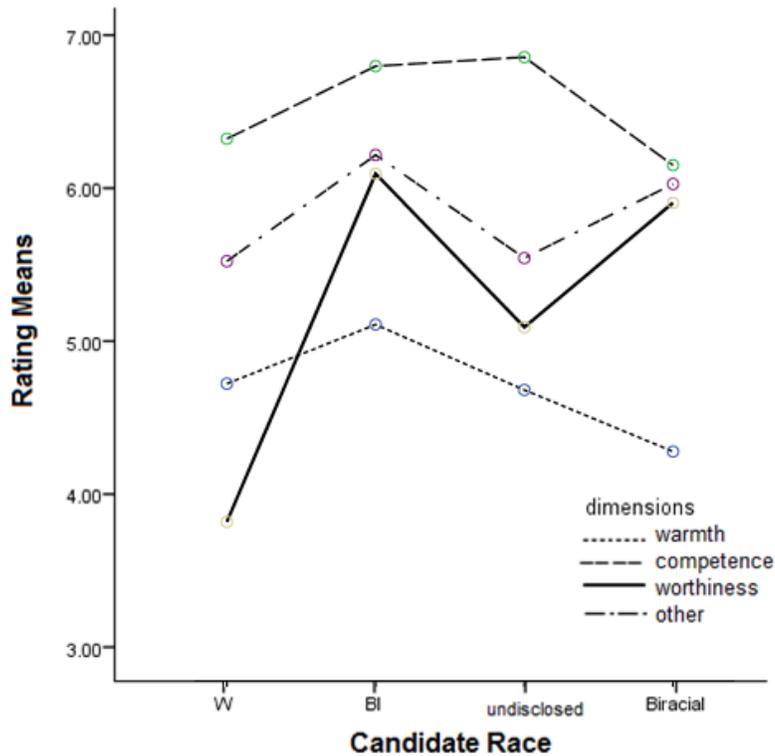


Figure 5. Post-Intervention Graduate Students Ratings.

Hypothesis 3: *Was there significant change within race disclosure groups after the intervention? In other words did the Caucasian candidates ratings decrease while the African American and Biracial candidate's ratings increase? And did the undisclosed race candidate's ratings remain unchanged?*

When checking the assumptions some conditions showed negative skew in rating of the four dimensions. However, since all skew was negative, and the General Linear Model is robust under these conditions, an ANOVA was employed. Further, the assumption of sphericity was not

met, Mauchly's $W(5)=.32, p = .01$, therefore a Greenhouse-Geisser correction to the ANOVA was used to analyze the hypothesis.

Yes. According to the ANOVA, Study 3 shows a significant effect of dimension (i.e., Warmth, Competence, Scholarship Worthiness, and Other Admission Criteria were rated differently), $F(1.72, 34.36) = 22.14, p < .001$, and of candidate race $F(3, 20) = 3.15, p = .048$. However there was no interaction of dimension and race $F(5.15, 34.36) = 2.15, p = .08$, which is a more meaningful effect than the effect of candidate's race or dimension alone. With regard to time, there was a significant main effect of time (i.e. pre and post intervention ratings differed), $F(1, 20) = 10.80, p = .004$, There was no interaction of candidates' race and time, $F(3, 20) = 1.25, p = .32$. Nor was there a three-way interaction between time, race, and dimension, $F(5.20, 34.66) = 1.52, p = .21$, However, there is a significant interaction of dimension and time $F(3, 1.73) = 15.20, p < .001$, which indicates that ratings of some dimensions change after the intervention where others do not, but they do not change as a function of candidates' race (see Table 5).

When looking at the changes within race disclosure groups before and after priming (Table 5), we see that there was a large effects of the intervention on the Warmth dimension, such that every race disclosure group's ratings decreased significantly, i.e., all had large effect sizes (White $d' = .94$, Black $d' = 1.19$, Undisclosed $d' = 1.09$), with Biracial candidates having the highest ratings of warmth before the intervention, and the lowest warmth after ($d' = 1.69$). On the Competence dimension, the White candidate was not impacted by the intervention ($d' = .11$); the decline in the Black candidate's ratings of Competence represent small effects ($d' = .22$); the Biracial candidate decreased was a medium sized effect ($d' = .78$); and the undisclosed race candidate's ratings decreased by a large effect ($d' = .91$). There was no effect of the candidates'

race on Scholarship Worthiness after the intervention, and Other Admission Criteria were also affected minimally by the priming intervention, registering only a small decrease ($d = .31$) in ratings for White candidates after the intervention.

This means that though ratings on dimensions changed after the intervention, it was not strictly due to the candidates' race disclosure. For example, all race disclosures were perceived as significantly less warm after the intervention. Additionally, all but the White candidates were perceived as significantly less competent after intervention; though the White candidate's ratings of competence also decreased slightly after intervention, it was not statistically significant. Because the results show that participants respond to races similarly before and after the intervention, the differences within race disclosures need to be accounted for otherwise. This was contrary to the results of the previous two studies, which prompts the question that started this study, do undergraduate and graduate students respond differently after priming?

Hypothesis 4: *Do undergraduate students and graduate students respond differently after the priming intervention?*

Yes. The analysis for this question was a (2 times) x (4 dimensions) x 4 candidate races x 2 samples repeated-measures ANOVA. There is a significant main effect of whether the participant was in the undergraduate student population sample or the graduate student sample, $F(1, 76) = 14.75, p < .001$. Additionally there was significant interaction between sample and dimension, $F(1, 76) = 8.96, p = .004$, another interaction between sample and time, $F(1, 76) = 7.16, p = .009$, and there were significant three-way interactions of sample, dimensions, and the candidates' race $F(3, 76) = 5.90, p < .001$ and sample, dimensions, and time, $F(1, 76) = 26.32, p < .001$. Post hoc t-tests to compare the responses of graduate and undergraduate students on the

four dimensions before the intervention revealed that responses to Warmth differed for the two groups, $t(82) = 2.07, p = .04$ (see Figure 6) and responses to Scholarship Worthiness differed significantly too (see Figure 7). Overall these results allow us to conclude that graduate students respond differently after the intervention than do undergraduates.

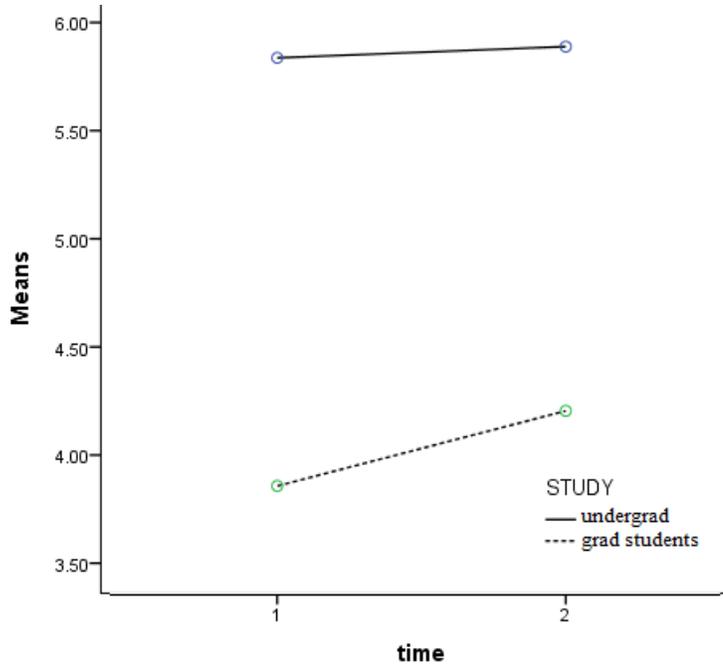


Figure 6. Warmth pre and post intervention.

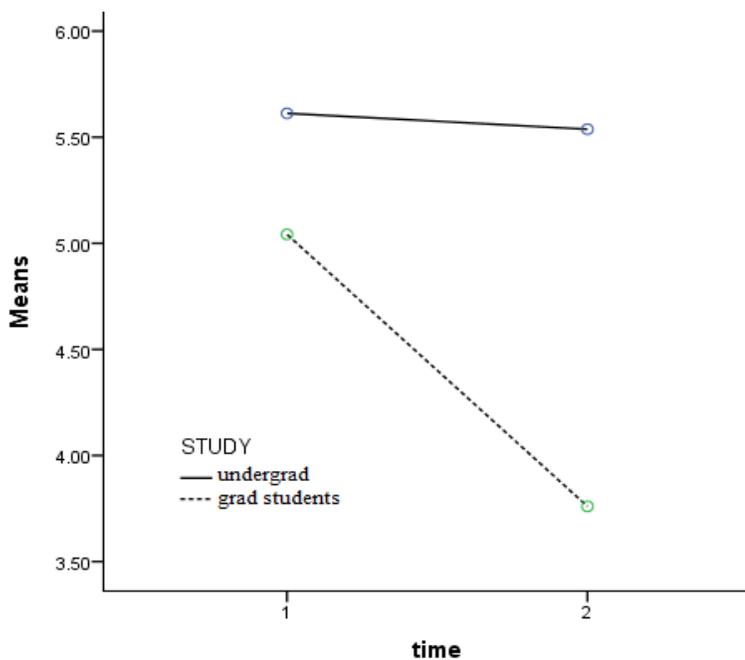


Figure 7. Scholarship Worthiness pre and post intervention.

So, what this means is that undergraduates and graduate students did respond to the candidates, and the dimensions differently *after* the intervention. Since participants in all the studies answered the same intervention questions but seem to have been affected differently by the intervention, I wondered whether the participants in the three studies responded differently to the priming intervention questions themselves.

Hypothesis 5: *Do participants in the 3 studies respond differently to the priming intervention questions?*

The assumption of sphericity was not met, Mauchly's $W(54) = .17, p < .001$, therefore a Greenhouse-Geisser correction to the ANOVA was used to analyze the hypothesis.

Yes, in fact they do! Table 6 shows graduate students' and undergraduate students' mean responses to the eleven intervention questions. Figure 8 displays the means in Table 6 graphically. This hypothesis was assessed using a 3 (studies) x 11 (questions) repeated-measures ANOVA. There was a significant main effect of intervention question, Greenhouse-Geisser $F(7.26, 16334.12) = 339.06, p < .001$, indicating that subjects respond differently to different intervention questions. Additionally there was a significant main effect of study, $F(2, 225) = 5.43, p = .005$, and a significant interaction of intervention questions and study, $F(14.53, 16334.12) = 8.47, p < .001$. There is no main effect of participants' race $F(1, 225) = .57, p = .45$. In other words, this suggests that subjects respond to some questions more than others, and undergraduate and graduate students respond differently overall, but most importantly undergraduate and graduate students respond different to some intervention questions, but not others. (see Figure 8).

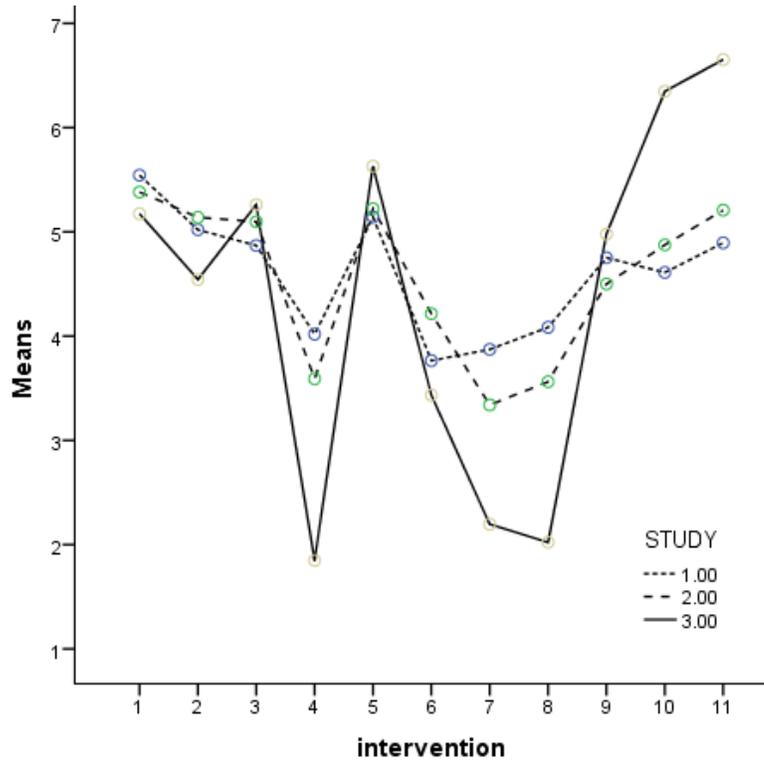


Figure 8. Intervention question ratings by study.

To further elucidate exactly which questions were the most significantly different, eleven one-way ANOVAs were conducted (see the means in Table 6). In the end, we found that responses of participants from Study 3 (i.e., graduate students) differed significantly on 9 out of the 11 intervention questions from those of the subjects in Study 1 and/or Study 2 (i.e., both undergraduate samples). Overall, graduate students tended to have significantly different responses to the intervention questions.

Table 6*Graduate Students and Undergraduate Students' Responses to Individual Intervention Questions*

Intervention questions	Undergraduate Participants		Graduate Participants		Effect Size
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>d'</i>
No one can change his or her race—you are who you are	5.52	1.33	4.42	1.95	-.67
Racial groups are primarily determined by biology	5.06	1.20	5.04	1.16	-.02
A person's race is fixed at birth	5.09	1.62	3.67	2.22	-.73
It's possible to be a full member of more than one race	3.77	1.64	2.63	1.69	-.68
It's easy to tell what race people are by looking at them	5.26	1.37	4.38	1.08	-.50
White privilege impacts how people are treated	3.93	1.61	4.75	1.85	.47
Young children probably learn about which people fall into which racial groups automatically, without much help from adults	3.73	1.51	2.38	1.14	-1.01
The political climate can dictate whether someone is categorized as Black or White	3.87	1.51	2.04	1.16	-1.36
The average person is highly accurate at identifying people by race	4.73	1.38	4.04	1.60	-.46
It's natural to notice the racial group to which people belong	4.63	1.59	5.75	1.70	.68
Siblings born to the same parents will always be the same race as each other	5.06	1.40	6.33	1.09	1.01

Note: Undergraduates ($n = 207$), Graduate Students ($n = 24$)

Chapter 3

Results Summary

In this three-study dissertation, I examined the impact of a race priming and activating intervention on participants' ratings of a scholarship candidate on dimensions of warmth, competence, and diversity scholarship worthiness. In Study 1, we see that before any race-related information is introduced, candidates with similar credentials are rated similarly across dimensions of warmth, competence, and scholarship worthiness. However, once race was introduced as a salient factor (i.e., candidate race disclosure, and race priming), we found that candidates were rated differently according to their race, especially on the dimensions of Competence and Scholarship Worthiness. Perhaps the most compelling result from Study 1 was that Biracial candidates had the most positive change after the intervention, particularly on the dimension of Scholarship Worthiness.

In Study 2, I expanded the method from the first study to introduce early and varied race disclosures. Study 2 revealed that people rated the dimensions differently, and perceived Black candidates as most diversity Scholarship Worthy before the intervention (i.e., race priming). After the intervention, undisclosed candidates were evaluated as significantly less competent, and with the exception of the White candidate (least favorable), other candidates of race disclosures (Black, Biracial, undisclosed) were rated more similarly in their Scholarship Worthiness. Ultimately, while Study 2 indicated that the intervention did not have an impact on how participants responded to candidates of different races, the study did support the notion that

ratings of different dimensions, especially diversity Scholarship Worthiness, were affected by the scholarship candidates' race disclosure.

In the last study, I explored whether the participant demographics might affect their responses to the priming intervention. Study 3 was a systematic replication of Study 2, with graduate students rather than undergraduates as participants. Here the graduate students responded like the undergraduates before the intervention but quite differently after. Again, Black and Biracial candidates were perceived as more Scholarship Worthy than White candidates. Furthermore, some dimensions changed after the intervention and some did not, but these differences were not moderated by candidate race. Specifically, candidates of all races were perceived as significantly less Warm after the intervention, and there were lower ratings of Competence for all except the White candidates.

Finally, to make sense of the results, I compared the effectiveness of the intervention for graduate and undergraduate participants. Graduate students responded differently to candidates *after* the intervention but undergraduates were relatively unaffected by the intervention. Graduate students' responses to the eleven intervention questions indicate they had much more "essentialist" beliefs than did undergraduates. Given that the three studies had used the same intervention and race disclosures, the finding that undergraduate students were unaffected by the intervention was unexpected and disappointing.

Chapter 4

Discussion

Overall, I'm sure there are numerous possibilities for justifications and resolutions to the findings of this series of studies, and I will propose a few of them, including: essentialism priming, cohort effects and generational replacement, mere exposure, participant demographics, and use of race language.

Exploring the Perception of the Biracial Candidate

In the first study we found that when an identical application is submitted by a college student who discloses his biracial background and paired with a race priming intervention, their overall ratings of diversity scholarship worthiness significantly increase. This is compelling because previous research indicates that Biracial individuals are generally perceived as significantly less warm, less competent, less scholarship worthy, confused, socially isolated, and awkward than monoracial individuals (Jackman et al., 2001; Sanchez & Bonam, 2009). Sanchez and Bonam (2009) suggest lower ratings of warmth as a possible reason biracial individuals are perceived more negatively. In light of the present study, that also utilized warmth as a factor, we found that after race disclosure biracial candidates had higher ratings of scholarship worthiness, and were not statistically different than Black candidates on ratings of warmth, or competence.

It should be noted that past research indicates that perception warmth is critically important, as it is related to proactive and cooperative intergroup emotions, and the perception of competence, which itself is related to academic competence (BIAS map; Cuddy et al., 2007;

Sanchez & Bonam, 2009). In this study, biracial individuals were not penalized on dimensions of warmth or competence, which may also contribute to the difference post intervention ratings of scholarship worthiness.

As Study 1 utilized an undisclosed race candidate as first exposure coupled with very little race language (i.e. diversity scholarship versus minority scholarship), the saliency of race did not become evident until the priming intervention, which was subsequently paired with participant personal demographics, and candidate race disclosure. It is generally understood that the term diversity is less race activating than is the term minority, with its direct reference to race. The lack of immediate exposure may have increased the ratings of biracial individuals. Additionally, the biracial candidate's race mix was undefined. This likely allowed room for participants to project whatever idea or identity they wanted onto the biracial candidate they were reviewing. Further, as we see in Study 3, the intervention that was used may have actually primed individuals to think more "essentially" rather than simply activate race thoughts. If that were the case, and the saliency of race became evident at the same time, participants may have misattributed ratings to Biracial candidates, perceiving them as "no different than Black" candidates (i.e., more "essentially") (Neuberg, & Sng, 2013; Renn, 2000), which is supported by the statistical findings.

Exploring the Importance of Sample Selection

A major insight of this study resulted from the comparison of the graduate student responses with those of the undergraduate sample, finding that they responded differently both to the intervention and the post intervention candidate. When considering this difference, a possible explanation is that the essentialist questionnaire, used as a means to simply activate race, actually

activated essentialist perceptions. As noted earlier in the results summary, graduate students responded more “essentially” to the intervention, and subsequently responded to the next candidate less favorably. Participants likely held those essentialist beliefs when reviewing the first candidate, suggesting that the intervention primed these thoughts, and were further activated (i.e., through stereotype activation) when rating the second candidate, resulting in lower ratings (stereotype application; Gilbert & Hixon, 1991; Kunda & Spencer, 2003).

Another possible explanation for the difference in graduate and undergraduate students’ responses to the intervention and after-intervention candidate, is a cohort effect. The mean age of the undergraduate sample was 19, whereas the average age for the graduate sample was 35. Some research suggests that age and education impacts perceiver’s ratings of others, specifically the relationship between the values, attitudes, and behavior of generations is closely tied (Dowden & Robinson, 1993). Smith (1985) notes that education can be a moderating factor of these cohort effects, stating that higher education is correlated with more flexible perceptions of race, particularly with regard to measures of interpersonal contact facilitated by institutional change. The generational replacement theory has been suggested as means to explain the perception differences across ages. This theory suggests that as older generations, who hold to a more rigid understanding of race and gender, are aging and dying, they are being replaced with generations who have been taught and socialized to be more tolerant (Smith, 1985).

Finally, an additional factor in the difference in groups is that Graduate students responded to the study completely on-line, but the undergraduates were invited to participate in the study after a social psychology guest lecture that had been offered by a woman of color (the investigator). The mere exposure to the woman of color, may have been an unintentional race

priming agent (Glaser & Banaji, 1999; Zajonc, 1984). In fact, the instructor's phenotypic priming may have acted as a sort of "reverse priming" giving a particular association to people of color before completing the survey. Other research discusses the idea of social power and power-holders, particularly for educators and their impact on the classroom (Elias & Loomies, 2004). According to Richmond and Roach (1992) there are 11 types of power-holds in the classroom. However, the one that would be most relevant in this case a reward power, where the power-holder has the ability to reward a target's compliance with something positive or remove something negative (i.e., course credit, or extra credit; Richmond & Roach, 1992). Though this guest lecturer did not have the power to give, or deny credit or extra credit for the course, she was an acting administrator, enacting a social power situation that may have impacted undergraduate students' responses. Whereas the graduate students had no ulterior motive or reward system, other than the chance to win a gift certificate, but no power-holds were in play, nor was there phenotypic priming, as they interacted with the study electronically, without necessarily contacting a person of color.

Limitations

It should be noted that this study is not without its limitations. The overall demographics of the sample population should be considered a limitation. The host university tends to have a conservative, middle-class, White, Christian population. It is evident, not only in their responses here, but also in comparison to national averages, this university's population does not follow the national trend in regards to overall demographics. Future research should include a more representative sample of young adults. Additionally, the graduate student sample was quite small,

thus results should be interpreted with caution, and the study would benefit from future research adding to the overall sample size.

Furthermore, another important factor as the idea and language of diversity is considered is that the university where these studies were conducted offers a prominent and substantial diversity scholarship (Act Six) that is awarded to diverse individuals from low access areas that otherwise would have had barriers to attend college. For the purposes of this diversity scholarship, diversity is defined broadly and is not primarily associated with race, and this information has been publicized to the campus community. Knowledge of this award, may have inadvertently primed participants to compare the mentioned diversity scholarship to the Act Six scholarship. It is unknown whether this would increase or decrease participant ratings of scholarship worthiness, but it is noteworthy that there is at least a possible association.

Conclusion

The discrepancy in scholarship award, college admission, and job offers among minority individuals has been a long time issue, and anything to promote a change toward equality is welcomed. This study was an attempt at just that. Overall, the proposed intervention did *not* work as hoped. In fact, it is possible that in the use of an essentialism questionnaire as a means to “activate race,” actually activated essentialist thinking rather than awareness of one’s own race. Though it did not produce the results we had hoped for, this study does suggest that when participants are given an intervention when reviewing applicants, it does in fact impact their ratings of the individual. This has huge implications for equal opportunities when evaluating applicants for admission, jobs, scholarship, etc. Future research can build on this to work toward

finding the appropriate intervention that can be later developed as a standard application review primer, with the goal of true equal opportunity.

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Appendix A**Essentialist Thinking Abbreviated Questions**

Young, Sanchez, Wilton, 2013

Shortened 10-Item RCS

1. No one can change his or her race—you are who you are
2. It's natural to notice the racial group to which people belong
3. Siblings born to the same parents will always be of the same race as each other
4. Young children probably learn about which people fall into which racial groups automatically, without much help from adults
5. A person's race is fixed at birth
6. The political climate can dictate whether someone is categorized as Black or White
7. The average person is highly accurate at identifying people by race
8. It's easy to tell what race people are by looking at them
9. Racial groups are primarily determined by biology
10. It's possible to be a full member of more than one race

Appendix B

Curriculum Vitae

Education

PsyD CLINICAL PSYCHOLOGY – George Fox University, Newberg, Oregon APA Accredited Anticipated Graduation April 29, 2016	Present
Masters of Arts in CLINICAL PSYCHOLOGY – George Fox University, Newberg, Oregon	2014
Masters of Arts in CLINICAL MENTAL HEALTH COUNSELING – George Fox University, Portland, Oregon	2011
Bachelor of Arts in PSYCHOLOGY – George Fox University, Newberg, Oregon	2009
Bachelor of Science in PRE-MEDICAL BIOLOGY – George Fox University, Newberg, Oregon	2009

Clinical Training and Experience

BOSTON CHILDREN'S HOSPITAL/ HARVARD MEDICAL SCHOOL, Psychiatry Boston, Massachusetts Title: Pre-Doctoral Psychology Intern/ Clinical Fellow in Psychology Harvard Medical School Academic Appointment Treatment Setting: Pediatric Psychology, Children's Hospital Rotations	Present
<ol style="list-style-type: none"> 1. <u>Outpatient Psychiatry Service (OPS)</u>: Implement comprehensive assessment and treatment services to children and family through various evidence-based interventions through (1) Developmental Neuropsychiatry for youth presenting with ASD/features of prodromal psychosis (2) Pediatric Medical coping/behavioral medicine, and (3) Anxiety, Depression, ADHD, & Trauma/Stress (ADApT). <i>Supervisors: Eugene D'Angelo, PhD & Marcus Cherry, PhD</i> 2. <u>Emergency Psychiatry Service</u>: Offer acute psychiatric assessment and disposition services in the emergency department. <i>Supervisor: Erina White, PhD, LICSW</i> 3. <u>Center for Neuropsychology</u>: Provide neuropsychological assessment and evaluation to children with co-morbid medical and neurological diagnoses. <i>Supervisor: Jennifer Queally, PhD & Celiane Rey-Casserly, PhD</i> 4. <u>Atopic Dermatitis Center</u>: Provide psychoeducation and brief 	

behavioral interventions to help children with severe atopic dermatitis, as well as co-facilitate psychoeducation groups on eczema management. *Supervisor: Jennifer LeBovidge, PhD*

5. Group Psychotherapy Team: Co-facilitate EBT-informed social skills and expressive therapy groups for middle school boys. *Supervisor: Ariel Botta, PhD, LICSW*
6. Psychiatry Consultation Service (PCS)- Provide diagnostic and treatment services to medical and surgical units including medical subspecialty services (cardiology, cystic fibrosis, critical care medicine, gastroenterology, pain medicine, and hematology-oncology). *Supervisor: Katherine Thomson, PhD*
7. General Assessment- Conducting general psychodiagnostic assessments as referred from the hospital populations and the department of psychiatry. *Supervisor: Eugene D'Angelo, PhD*

CHILDHOOD HEALTH ASSOCIATES OF SALEM
Salem, Oregon

2015

Title: Behavioral Health Intern

Treatment Setting: Pediatric Primary Care

- Integrated behavioral health consultant with ages 0-21, and families
- Mental health interventions and care coordination
- Warm hand-offs with providers
- Provided psycho-educational classes for providers, staff, and the community

Supervisor: Joy Mauldin, PsyD

BEHAVIORAL HEALTH CRISIS CONSULTATION TEAM
Yamhill County, Oregon

2013-15

Title: Behavioral Health Intern, QMHP

Treatment Setting: Hospitals

- Conduct crisis evaluations in hospital Emergency Department, ICU, and Medial/ Surgery for individuals at risk of harm to self or others, inability to care for self or psychoses
- Provide coordination of care: psychiatric hospitalizations, respite, residential, detox, homeless shelters, and community mental health
- 15 hour weekly on-call shifts, and holidays

Supervisors: Mary Peterson, PhD; Joel Gregor, PsyD; William Buhrow, PsyD

OREGON HEALTH & SCIENCES UNIVERSITY: Child Development & Rehabilitation
Center at Doernbecher's Children's Hospital, Neuropsychology Clinic
Portland, Oregon

2013-14

Title: Neuropsychology Psychometrist

Treatment Setting: Children's Hospital

- Provide Neuropsychological assessment workup on children with

- neurological complications due to: epilepsy, traumatic brain injury, brain tumor, multiple sclerosis, cancer, and other rare genetic disorders
- 8 hour contained single testing clinic, including testing, scoring, interpretation and feedback
 - Writing weekly integrated reports
- Supervisors: Daniel Kriz, PsyD; Susanne Duvall PhD (Chief Resident)

RURAL SCHOOL BEHAVIORAL HEALTH CONSORTIUM

2012-13

St.Paul, Oregon

Title: Behavioral Health Intern

Treatment Setting: Rural Elementary School

- Conducted all counseling and social skills training of elementary students
 - Provided IEP, LD, Gifted/Talented, and ADHD assessments
 - Provided active systemic interventions, Mileu, and Group
 - College prep course with High School seniors
 - Social skills classes with grades 1-5
- Supervisor: Elizabeth Hamilton, PhD

GEORGE FOX UNIVERSITY PRE-PRACTICUM

2012

Newberg, Oregon

Title: Pre-Practicum Therapist

Treatment Setting: University

Supervisors: Rusty Smith, M.A.; Mary Peterson, PhD

GOOD SAMARITAN MINISTRIES INTERN

2010-12

Beaverton, Oregon

Title: Clinical Mental Health Counseling Intern

Treatment Setting: Community Mental Health

- Crisis intervention, intake experience, suicide intervention
- Outpatient services to adults, couples, adolescents, and children

Supervisors: Pat Thompson, MA, LMFT; Daniel Sweeney, PhD, RPT-S

Supervision Experience

CLINICAL TEAM

2014

George Fox University, Newberg, Oregon

Title: Fourth Year Oversight

Setting: Doctoral Program

Supervisor: Erica Tan, PsyD

ADVANCED COUNSELING

2012

George Fox University, Newberg, Oregon

Title: Graduate Assistant

Setting: Undergraduate Psychology Course

Supervisor: Kris Kays, PsyD

CLINICAL FOUNDATION CLASS

2010-11

George Fox University, Portland, Oregon

Title: Graduate Assistant
 Setting: Graduate Counseling Program
 Supervisor: Keith Dempsey, PhD

Relevant Work Experiences

INCLUSIONS and STUDENT LEADERSHIP DIRECTOR'S ASSISTANT <i>George Fox University, Newberg, Oregon</i>	2012-13
MULTICULTURAL SERVICES DIRECTOR'S ASSISTANT and COORDINATOR <i>George Fox University, Newberg, Oregon</i>	2007-08
ADULT CRISIS FOSTER CARE HOUSE MANAGER <i>George Fox University, Portland, Oregon</i>	2001-15

Teaching Experiences

INTERPERSONAL NEUROBIOLOGY and PSYCHOPHARMACOLOGY <i>George Fox University Graduate Department of Counseling, Portland, Oregon</i>	2012-14
GROUP THEORIES and THERAPY <i>George Fox University Department of Counseling, Portland, Oregon</i>	2012-14
GUEST LECTURES <i>George Fox University, Portland, Oregon</i> Various Undergraduate Courses Various Graduate level courses	2011-15
MULTICULTURAL PSYCHOTHERAPY <i>George Fox University Graduate Department of Psychology, Newberg, Oregon</i>	2012-14

Leadership and Involvement

OREGON PSYCHOLOGICAL ASSOCIATION (OPA) - Diversity Committee Vice Chair 2012-2013 - Diversity Committee Member	2012-Present
GEORGE FOX STUDENT COUNCIL - Current President 2014-2015 - Vice President 2013-2014 - Class Representative 2011-2013 - Member At Large 2014-2015	2011- Present
GEORGE FOX FACULTY OF COLOR COMMITTEE	2012-14
WESTERN ASSOCIATION OF COUNSELOR EDUCATORS AND SUPERVISORS	2012-14

ACTIVATING RACE	68
(WACES) GRADUATE STUDENT REPRESENTATIVE	
GEORGE FOX MULTICULTURAL COMMITTEE	2011- 15
- Executive Administration	
- Research Committee Chair	
GEORGE FOX GRADUATE DEPARTMENT OF PSYCHOLOGY ORIENTATION COMMITTEE	2012- 15
GEORGE FOX COMMUNITY SERVE DAY	2004-14
GEORGE FOX CHAPTER OF CHRISTIAN ASSOCIATION OF PSYCHOLOGISTS (CAPS) EXECUTIVE COMMITTEE	2011-13

Professional Affiliation and Memberships

SOCIETY FOR THE PSYCHOLOGICAL STUDY OF SOCIAL ISSUES (SPSSI), Graduate Student Affiliate Member	2014- Present
AMERICAN PSYCHOLOGICAL ASSOCIATION	2011- Present
- Division 38: Health Psychology	
- Division 40: Clinical Neuropsychology	
- Division 45: Society for the Study of Ethnic Minorities	
OREGON PSYCHOLOGICAL ASSOCIATION (OPA)	2011-Present
- Diversity Committee Member	
ASSOCIATION OF BLACK PSYCHOLOGISTS (ABPi)	2012-Present
CHRISTIAN ASSOCIATION OF PSYCHOLOGICAL STUDIES (CAPS)	2012-14
AMERICAN COUNSELING ASSOCIATION (ACA)	2009-11

Awards and Acknowledgments

GEORGE FOX UNIVERSITY DOCTOR OF PSYCHOLOGY DIVERSITY SCHOLAR	2011- 15
ASSOCIATION OF COUNSELOR EDUCATORS AND SUPERVISORS (ACES) EARLY CAREER NATIONAL PRESIDENTIAL FELLOW	2012
CAMBRIDGE UNIVERSITY WHO'S WHO AMONG PROFESSIONAL WOMEN	2010-12
AL SEIFEL AWARD	2012
<i>George Fox University Graduate Department of Counseling, Newberg, Oregon</i>	
- Awarded to an outstanding counseling student who also exhibits genuine zeal for inquiry, consistent integrity, and a commitment to community, and university	

well-being and growth

Presentations

Wallis, F., Valdez, M., Khanna, S., Nelson, A. (July 2014). National cultural competence continuing education requirements for professionals. Accepted as poster presentation at Society for the Psychological Study of Social Issues (SPSSI), Biennial Conference: Portland, OR

Taloyo, C., Saterlee, M., Payne, T., Nelson, A., Haskall, N., Maloney, C., & Immigen, J. (August 2014). The real relationship in training pre-practicum students, a follow-up study. Accepted as poster presentation for APA National conference: Washington, DC

Backstrand, S., Holt, J., Nelson, A., Theye, A., Seegobin, W., & Perez, J. (July 2013). Student's perceptions of ethnic and racial diversity within graduate programs of a Christian university. Poster presentation given at APA: Honolulu, HA

Taloyo, C., Saterlee, M., Payne, T., & Nelson, A. (May 2013). The real relationship in training pre-practicum students. Poster presentation given at National Council of School and Programs of Professional Psychology (NCSP): Nassau, Bahamas

Nelson, A., et.al. (April 2012). Ethical decision making and the importance of cultural competence. A symposium presentation at Oregon Psychological Association (OPA) Conference, Portland, OR

Nelson, A. (October 2012). The multiracial individual as a unique population within diversity: What educators, supervisors, and clinicians ought to know. A symposium presentation at Western Association for Counselor Educators and Supervisors (WACES) Conference, Portland, OR

Nelson, A. (October 2010). Perspective taking when working with biracial clients. A symposium presentation at Western Association for Counselor Educators and Supervisors (WACES) Conference, Sacramento, CA

Training

COMMUNITY HEALTH PARENT TRAININGS 2014

Childhood Health Associates of Salem, Salem, Oregon

- Attention Deficit/ Hyperactivity Disorder community parent trainings for age groups: school-aged, middle school, and high school children
- Community parent training for parents of children with Autism Spectrum Disorder
- Whole brain parenting. A community parent training based on the book by Daniel Siegel addressing 12 ways to intentionally help your child integrate your brain

PROVIDENCE HEALTH CHILDREN'S FAIR 2012-14

City of Portland, Portland, Oregon

- Part of a team addressing bullying from different developmental stages
- Provided community outreach discussing anti-bullying approaches including: how to recognize bullying, emotions with bullying, what to do, and anti-bullying commitments.

PIECES: INTERCULTURAL CONFERENCE

2013

George Fox University, Newberg, Oregon

- Diversity conference that highlights diversity through cultural awareness, and active discussions
- Discussion facilitator
- Inter-professional discussion panel
- Break-out session entitled: Multiracial Individuals

Research Experience

DISSERTATION

TITLE: *Activating race: Race priming in an undergraduate population*

SUMMARY: Building on the work of Sanchez & Bonam (2009), the present study is designed to examine how evaluations of warmth, competence, and scholarship worthiness, change with some interim race priming and stereotype activation. The hope is that with race priming, and stereotype activation, individuals will consider more carefully how they may have applied stereotypes in their judgments of candidates, resulting in a positive shift in their evaluations on the dimensions of warmth, competence, and scholarship worthiness.

CHAIR OF COMMITTEE: Kathleen Gathercoal, PhD

COMMITTEE MEMBERS: Carlos Taloyo, PhD, & Winston Seegobin, PsyD

RURAL SCHOOL BEHAVIORAL HEALTH INTERVENTIONS

Present

- Program evaluations of *Stop and Think*, and *Stepwise*, programs that promote appropriate social skills
- Program evaluations conducted in a diverse rural school consortium
- In progress

PARENTING THE MULIRACIAL CHILD

Present

- Parenting handbook
- Adaptation of parenting handbook developed by Joel Gregor, PsyD
- In Progress

THE MULTIRACIAL EXPERIENCE

Present

- A qualitative look at identity as experienced through the lens of the multiracial individual, monoracial individual, and majority culture individual
- A series of video-taped interviews
- In progress

RESEARCH VERTICAL TEAM MEMBER, Research Associate

2011-15

- Bi-monthly small group for developing research competencies
- Supplemental research projects
- Development of dissertation
- Develop fellow colleagues areas of reserch interest