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THE EXAMINATION OF DISCRIMINATION AND SOCIAL BIAS TOWARD  
INTERRACIAL RELATIONSHIPS

BY

TARAH MIDY

BS, Manhattan College, 2010  
MA, Columbia University, 2012

DISSERTATION

Submitted in partial fulfillment of the requirements for  
the degree of Doctor of Philosophy in Clinical Psychology  
in the Graduate School of  
Binghamton University  
State University of New York  
2018

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Accepted in partial fulfillment of the requirements for  
the degree of Doctor of Philosophy in Clinical Psychology  
in the Graduate School of  
Binghamton University  
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## Abstract

Although rates of approval toward interracial couples are increasing (Carroll, 2007), interracial couples report facing prejudice and discrimination including disapproval and ostracism from family, friends, and the general public (Carbone-Lopez, 2013; Martin, Campbell, Ueno, Fincham, 2013; Potter & Thomas, 2012; Troy, Lewis-Smith, Laurenceau, 2006). However, there is growing evidence as acceptance rates and challenges faced by couples vary (Pew Research Center, 2012, Golebiowska, 2007), that experiences are different for couples depending on the racial group and gender of both partners involved.

To better understand the experience of different interracial couples, I conducted two studies to examine the particular stressors they may encounter and how they are perceived by others. First, I used data from the National Latino and Asian American Study (NLAAS) and the National Survey of American Life (NSAL;  $N = 5,413$ ), to examine whether the racial and gender composition of a couple (e.g., Asian American man/Hispanic American woman) coincides with the amount and type of challenges a couple experiences. Second, I used a Mechanical Turk sample ( $N = 447$ ) to examine the social bias toward interracial couples of different racial and gender compositions using the implicit association task (IAT). Overall it seems societal views towards different racial groups are influential in what interracial couples experience and how they were perceived. Rather than considering interracial couples a homogeneous group, future studies should account for the different types of these couples as it may have implications on results.

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## **List of Abbreviations**

AIC: Akaike Information Criterion

BIC: Bayesian Information Criterion

IAT: implicit association test

LL: -2log-likelihood

M: Mean

NLAAS: National Latino and Asian American Study

NSAL: National Survey of American Life (NSAL)

SD: Standard Deviation

## Prologue

My dissertation research focuses on interracial couples. Despite increasing rates of the prevalence and acceptance of interracial couples, people in these relationships still experience higher rates of dissolution than same-race couples. My work focuses on unique challenges that interracial couples may face and exploring the implicit and explicit attitudes toward different interracial couples in order to better understand stereotypes that may place these couples at risk for relationship dissolution. Through the following studies, I intended to provide insight to the experience of interracial couples of different racial and gender compositions.

## Chapter 1: The classification of same-race and interracial couples based on perceived discrimination and social support using finite mixture modeling

The prevalence and acceptance of interracial relationships in the United States has increased dramatically in the past decades. Previously banned through antimiscegenation laws, the Loving vs. Virginia Supreme Court case legalized interracial marriages under federal law (Loving vs. Virginia, 1967). Since then, rates of interracial marriage have increased from less than 1% of all marriages in 1970 to 8.4% in 2010 (Batson, Qian & Lichter, 2006; Wang, 2012).

Although interracial relationships are more widely accepted, stigmatization of these relationships persists. Stigma exists when “labeling, stereotyping, status loss, and discrimination occur together in a power situation that allows them” (Link & Phelan, 2001, p. 377). Stigmatized individuals or groups are seen as different from and lower in status than others, causing them to be possible targets of discrimination. Stemming from the belief that it is “immoral” or “unnatural” for persons of different racial groups to be involved in a romantic relationship (Killian, 2003), partners in interracial relationships have experienced hostility and rejection, as evidenced by laws banning interracial marriage, sex, and cohabitation (Kennedy, 1997). Although more outward discrimination has decreased in recent decades, more subtle and chronic forms of prejudice still exist (e.g., Pascoe & Smart Richman, 2009). Research on how stigma affects interracial relationships is limited but is an important issue for researchers and clinicians to address. The present study intended to examine how stigma affects different variations of interracial relationships.

## **The consequences of stigma**

Stigma has a major and persistent influence on health. According to the fundamental cause theory (Link & Phelan, 1995; Phelan, Link & Tehranifar, 2010), certain social conditions, such as stigma, influence multiple health outcomes through multiple risk factors, despite changes in the diseases and risk factors presumed to explain it. Various forms of stigma have been related to adverse consequences such as stress, social isolation, and reduced resources (Hatzenbuehler, Phelan & Link, 2013). More specifically perceived discrimination, mistreatment and disadvantage subjectively understood as discrimination, has been linked to a heightened stress response, increased risk of developing certain chronic health conditions, and participation in unhealthy behaviors (Pascoe & Smart Richman, 2009; Schmitt, Postmes, Branscombe & Garcia, 2014). Chronic stress stemming from stigma has been argued to be unique from other general life stresses (Harrell, 2000; Pieterse & Carter, 2007) and can be referred to as minority stress. Minority stress is an additional chronic stress experienced by individuals from stigmatized social categories as a result of their minority status (Meyer, 1995; Meyer, 2003).

The effects of stigma have been noted on intrapersonal levels but can also have interpersonal consequences. Stigma is associated with relationship distress, as members of stigmatized groups who experience instances of prejudice and discrimination have reported increased relationship strain with family, friends, and spouses as well as a lower romantic relationship quality (Doyle & Molix, 2014a, 2014b; Otis, Rostosky, Riggle & Hamrin, 2006). Furthermore, stigma can extend across a stigmatized individual's social network through stigma by association. Stigma by association is the process through

which companions of a stigmatized person are also discredited or devalued (Goffman, 1963) and has been a robust finding in the stigma literature (e.g., Angermeyer, Schulze & Dietrich, 2003; Corrigan, Watson & Miller, 2006; Penny & Haddock, 2007; Pryor, Reeder & Monroe, 2012; Neuberg, Smith, Hoffman & Russell, 1994; Snyder, Omoto & Crain, 1999). Therefore, for interracial relationships, prejudice against either partner's racial group can extend to perceptions of the couple as a unit (Lewandowski & Jackson, 2001). Stigmatized relationships such as interracial relationships may also experience stigma as a couple, in addition to individually experienced stigma. Being in a socially devalued relationship was significantly associated with lower levels of relationship investment and satisfaction (Lehmiller & Agnew, 2006; Lewandowski & Jackson, 2001; Rosenthal & Starks, 2015).

Minority stress can also negatively impact relationships. Stress has received increased attention in marital research and several theories of marriage propose that stress can be detrimental to the quality and stability of relationships (Johnson, 2012). According to the vulnerability-stress adaptation model (Karney & Bradbury, 1995), marital distress and dissolution emerge from the combination of enduring vulnerabilities (e.g., personality traits), stressful events, and poor adaptive processes. This perspective assumes that marital quality declines as stressful life events can compromise effective coping strategies, particularly when chronic stress is high (Karney, Story & Bradbury, 2005). The stress-divorce model (Bodenmann 1995, 2005) further details how stress can impact relationship functioning by recognizing that dyadic stress can also occur indirectly when the stress of one partner spills over to the relationship and affect both partners. This model suggests that external stress slowly deteriorates relationship quality over time by

decreasing the time the couple spends together, decreasing the quality of communication, increasing the risk of health problems, and increasing the likelihood of problematic personality traits being expressed between partners (e.g., anxiety, hostility). Accordingly, stress can increase marital conflict and increase the likelihood of divorce. Therefore, as minority stress can be harmful to relationship functioning and stability on top of other marital stressors, it may be a factor in why interracial relationships are at higher risk of separation and divorce in comparison to same-race couples (Gaines & Ickes, 1997; Bramlett & Mosher, 2002). More studies are needed to determine the various ways this type of stress may emerge for individuals in different types of interracial relationships.

### **Understanding stigma in different types of interracial relationships**

Interracial relationships experience stigma in a number of ways. For instance, couples report experiencing staring from others, scowls, being ignored or called a “sell out” (Killian, 2012). Mistreatment by restaurant staff, real estate agents, and co-workers also have been reported (McNamara, Tempenis, & Walton, 1999). In addition, couples receive hateful messages (i.e., telephone calls and mail) and report having their property vandalized. There is also evidence that racism and discrimination emerge in the actions of larger societal institutions, such as banks and real estate agencies (Dalmage, 2000). In a recent study examining affective bias, adults were quicker to associate interracial couples with non-human animals and same-race couples with humans, which suggests that interracial couples were more likely to be dehumanized than same-race couples (Skinner & Hudac, 2017).

Interracial couples also report opposition to their union from those close in their social networks (Rosenblatt, Karis, Powell, 1995). Interracial couples reported having a

parent express serious concern and sometimes disapproval of their choice to marry interracially (Luke & Carrington, 2000). Disapproval has ranged from verbal exchanges to certain family member's refusal to come to important events, such as weddings. In extreme cases, members have lost contact with once close members of their families. Similarly, interracial couples also report disapproval from close friends (Childs, 2005; Luke & Carrington, 2000). Couples report feeling shocked by their friends' negative and at times strong opposition to their marriage. In general, withdrawn love and support from social networks is related to decreases in the overall level of satisfaction in marriages (Root, 2001; Rosenthal & Starks, 2015). It can also put pressure on the marriage and can lead to underlying feelings of resentment and irritation toward one's partner.

Although interracial couples appear to experience particular challenges such as discrimination and withdrawn support, it is unclear whether they are more or less similar across different types of interracial couples. According to the ethnic divorce convergence perspective (Jones, 1996), relationship dissolution of interracial marriages is necessarily dependent on the racial groups involved, with the chances of divorce likely falling between the divorce patterns of the involved racial groups. Similarly, acceptance rates of interracial marriage seem to depend on the racial groups involved. Out-marriage to Whites has a slightly higher acceptance rate at 81% than out-marriage to Asians (75%), Hispanics (73%) or Blacks (66%) (Passel, Wang & Taylor, 2010). Black respondents were somewhat more accepting of all forms of intermarriage than are White, Hispanic or Asian respondents. Seventy-two percent of Blacks surveyed said they would be fine with a family member marrying someone who was White, Hispanic or Asian. On the other hand, 64% of Asians, 63% of Hispanics and 61% of Whites say they would be fine with a



family member marrying someone from any of the other groups. As these acceptance rates are different among racial groups, there may be more or less discrimination of and available family or friend support for particular interracial pairings. Accordingly, it is possible that different interracial pairings may be more vulnerable to relationship problems and ultimate dissolution.

Presently, however, the considerable heterogeneity among interracial couples is typically disregarded in comparisons with same-race couples. In addition, research has mainly focused on Black-White pairings, and only more recently have also included interracial couples of other races, which has implications for research. For instance, Troy, Lewis-Smith and Laurenceau (2005) found no significant differences in relationship satisfaction between same-race and interracial couples. However, this may be due to the kinds of interracial couples sampled. More specifically, as certain interracial relationship combinations were unequally represented, it is possible that the interracial couples sampled did not experience the challenges that other interracial couples may encounter.

Likewise, there is also growing evidence that the implications for interracial couples (e.g., relationship stability) are different depending on the racial identification of the male or female partner. Compared with same-race White couples, White women partnered with Black or Asian men were more prone to divorce (Bratter & King, 2008). In contrast, relationships involving non-White females partnered with White or Hispanic men had lower or similar rates of divorce than same-race White couples. Similarly, men in interracial relationships tend to be as satisfied as men in same-race relationships (Hohmann-Marriott & Amato, 2008). These patterns reflect findings showing that race

and gender stereotypes have been found to overlap and are predictive of interracial dating preferences and patterns (Galinsky, Hall & Cuddy, 2013).

Considered overall, as rates of interracial relationships increases, more research should investigate which couples are most at risk for specific challenges, such as discrimination or withdrawn social support, that are known predictors of relationship distress (e.g., via the stress-vulnerability-adaptation model; Karney & Bradbury, 1995). Identifying which couples are most vulnerable to discrimination and social isolation will aid in developing appropriate coping or intervention strategies.

### **The Current Study**

Using two nationally representative studies, the National Latino and Asian American Study (NLAAS) and the National Survey of American Life (NSAL), we examined whether the racial and gender composition of a couple coincides with the amount and types of challenges a couple experienced. Through finite mixture modeling, which attempts to resolve the most likely number of subgroups underlying a larger combined population, we classified couples of different racial and gender compositions into naturally occurring subgroups based on individual ratings of perceived discrimination and the amount of support received from family and friends.

Previous studies have used the terms interracial and interethnic interchangeably, causing confusion of what defines an interracial couple. Though we have defined an interracial couple as a relationship in which members are from two different racial groups, there is little agreement as to what defines race and ethnicity. According to Desmond and Emirbayer (2010), race is often misrecognized as a natural category. Rather, race is more of a symbolic category based on phenotype or ancestry.

Acknowledging this controversy but yielding to expediency, we used the same racial categories as other recent studies (i.e., Hispanic, Black, White, Asian) to allow for cross-study comparisons.

1. We hypothesized that the racial and gender composition of a couple would contribute to the amount and types of stressors that a couple experiences. Using individual ratings of perceived discrimination and social support from family and friends, we examined whether distinct subgroups of interracial couples would emerge. Based on previous studies (e.g., Killian, 2012; McNamara, Tempenis, & Walton, 1999), we predicted that in comparison to individuals in same-race couples, individuals in interracial couples would experience more perceived discrimination and have lower social support from family and friends.
2. Based on previous studies (e.g., Bratter & King, 2008), we predicted that interracial couples involving White women with non-White men would experience the most perceived discrimination and receive the least social support from family and friends.
3. With the exception of Black-White relationships and White women partnered with non-White men, we predicted that interracial couples involving Whites (i.e., White man-Asian woman couples, White man-Hispanic woman couples) would be the most accepted followed by Asians, Hispanics and Blacks based on ratings of perceived discrimination and social support from family (Passel et al., 2010; Bratter & King, 2008; Miller, Olson, Fazio, 2004). Therefore, interracial relationships involving Whites would experience the least perceived discrimination and receive the most social support from family; while, on the

other hand, interracial relationships involving Blacks would experience the most perceived discrimination and the least social support from family.

## **Method**

### **Samples**

We used data from two nationally representative surveys to test our hypotheses: The National Latino and Asian American Study (NLAAS; Alegria et al., 2004) and the National Survey of American Life (NSAL; Jackson, Neighbors, Nesse, Trierweiler, & Torres, 2004). The NSAL primarily sampled African American and Afro Caribbean populations to compare to non-Hispanic white respondents living in the same communities, whereas the NLAAS sampled Latino and Asian American populations. The NLAAS was administered between May 2002 and November 2003 to 2,095 Asian, 2,554 Latino, and 215 non-Hispanic/non-Asian respondents. The NSAL was administered between February 2001 and March 2003 to 6,082 English-speaking adults. Adults over the age of 18 were eligible for study excluding institutionalized persons and those living on military bases. A detailed description of the development and implementation of these surveys can be found in Alegria et al. (2004) and Jackson et al. (2004), respectively.

### **Participants**

We used marital status to circumscribe the sample for this study, with only individuals indicating that they were married or cohabiting with their partner being included in the analyses ( $n=5,413$ ). All individuals were heterosexual. Racial and gender composition of each couple was determined by variables indicating the individuals' race and gender, as well as their partner's race. Participant demographics, as well as frequencies for each type of couple for both the NLAAS and NSAL, can be found in Table 1, Figure 1 and Figure 2, respectively.

### **Measures**

Using the available items, scales were developed in both the NLAAS and NSAL to measure the following variables:

**Perceived Discrimination.** The perceived discrimination scale for the NLAAS and the NSAL used the same nine items across samples. Williams, Yu, Jackson, and Anderson (1997) originally developed this scale to measure the frequency of routine experiences of unfair treatment (e.g., being treated with less respect, being called names or insulted). Participants were asked to indicate their attributions of unfair treatment in a later item and perceived discrimination scores were used only if the respondent's attributions were due to race, ethnicity or skin color. Participants were asked to respond to how often each item (e.g., "*You are treated with less courtesy than other people*") occurred in the participant's everyday life, ranging from "Less than once a year" to "Almost Everyday". Items were recoded in order for higher scores to indicate more perceived discrimination ( $M=20.46$ ,  $SD=7.05$ ). Inter-item reliability for the perceived discrimination scale was high,  $\alpha = .89$ .

**Social Support.** External social support was measured for both family and friends. Social support from one's family appears to be different than social support obtained from friends, and previous studies indicate that they should be studied independently (Lyons, Perrotta, Hancher-Kvam, 1988; Procidano & Heller, 1983). Therefore, separate scales were created for family social support and friend social support.

**Family Social Support.** For the NLAAS, 14 items assessed frequency of family contact (e.g., "*How often do you talk on the phone or get together with family or relatives who do not live with you*") and family closeness (e.g., "*Family members do trust and*

*confide in each other*”). Similarly, for the NSAL, seven items assessed frequency of family contact (e.g., *“How often do you see, write or talk on the telephone with family or relatives who do not live with you”*), as well as family closeness (e.g., *“Would you say your family members are very close in their feelings toward each other”*). Participants rated their frequency of contact or how much they agreed with the item. For both the NLAAS and NSAL, items were recoded to allow higher scores to indicate more family support. As response continua varied across items, standardized z-scores were calculated as to not let any one item carry more weight than others. Standardized scores were then averaged. Inter-item reliability was found to be adequate for family social support scales for both the NLAAS and NSAL,  $\alpha = .82$  and  $\alpha = .81$ , respectively. When samples were combined, each scale was used as the indicator of family social support for their respective data sets.

**Friend Social Support.** Both the NLAAS and NSAL used three items to assess friend social support. For the NLAAS, participants rated their frequency of friend contact (e.g., *“How often do you talk on the phone or get together with friends”*), as well as reliance on friends (e.g., *“How much can you rely on your friends for help if you have a serious problem”*). For the NSAL, participants rated frequency of friend contact (e.g., *“How often do you see, write or talk on the telephone with your friends”*), as well as friend closeness (e.g., *“How close do you feel toward your friends”*). For both scales, items were recoded in order for higher scores to indicate more friend social support. As with the family social support scales, item response scales varied across items and were therefore standardized and then averaged. The friend support scales from the NLAAS

and NSAL had acceptable levels of internal consistency,  $\alpha = .78$  and  $\alpha = .71$ , respectively.

### **Data Analyses**

We conducted finite mixture modeling to evaluate the number of components within the data using R. Components are subgroups to which an individual observation belongs. Mixture modeling allows for the investigation of the nature and existence of underlying subgroups in univariate and multivariate distributions (McLachlan & Basford, 1988). Finite mixture modeling does not make assumptions regarding the shape and covariance structure of latent groups within data – inherent to other statistical clustering methods – and also provides an objective statistical basis for model selection (Lenzenweger, McLachlan, & Rubin, 2007). An evaluation of model fit was performed by the comparison of -2log-likelihood (LL) estimates, the Akaike Information Criterion (AIC), and the Bayesian Information Criterion (BIC).

The following input variables were used in analyses: Perceived discrimination, family social support, friend social support and race by gender composition of the couple. After the number of components was determined, we used the finite mixture model to estimate the posterior probabilities of group membership. Each participant was then assigned membership to the group for which it has the highest estimated posterior probability of belonging. Once group membership was determined, descriptive statistics were calculated and compared on the variables of interest (e.g., perceived discrimination).



## Results

### Classification of Same-Race and Interracial Relationships

Finite mixture modeling was conducted with both same-race and interracial couples first. We input the perceived discrimination, family social support, and friend social support variables simultaneously. The analyses indicated that a four-component model fit best according to the -2LL function, AIC and BIC indexes (See Table 2). Posterior probabilities were computed to determine each participant's predicted component. Component characteristics for this analysis can be found in Table 3.

In comparing ratings of perceived discrimination and social support from family and friends, we expected that interracial couples would be in separate groups than same-race couples. This was partially supported, as same-race Asians, same-race Blacks were separated into two different components. Hispanic-All Other and Hispanic-White couples also were together in their own component, while the last component had all other remaining interracial couples as well as same-race Hispanics and same-race Whites.

We also predicted that interracial couples would have the highest levels of perceived discrimination and lowest levels of support, which we did not find. Same-race Blacks had the highest levels of both perceived discrimination and family social support, in comparison to the other components, though was ranked third out of all the groups for friend support. Same race Asians had similar levels of family and friend support to same race Blacks, although ranked third in perceived discrimination ratings. Hispanic-All Other couples and Hispanic-White couples also had similar family support levels to same race Blacks, though they had the lowest levels of perceived discrimination and ranked second in friend support out of all the groups. The remaining interracial couples, as well

as same-race Hispanics and same-race Whites, had the second highest levels of perceived discrimination and the lowest family support; yet, conversely, they had the highest friend support. Although we expected to find social support to be consistent across both family and friends, sources of support made a difference in defining groups.

Given our results, although three components had similar levels of family support, perceived discrimination and friend support made a difference in defining groups.

Although same-race Blacks and same-race Asians had similar levels of family and friend support, different perceived discrimination separated these couples into two different components. Hispanic White and Hispanic All Other Couples also similar levels of family support to same race Blacks and Asians but had higher friend support. For the component with all other interracial couples, however, same race Hispanics and same race Whites had lower levels of family support than the other three components yet had the highest friend support.

## **Classification of Interracial Relationships without Same-Raced Couples**

Considering the heterogeneity of interracial couples, we were interested if perceived discrimination, as well as family and friend support ratings were different among interracial couples. As same race couples account for a large portion of both datasets, and with most interracial couples being placed in one component in our previous analysis; we were interested if the number of components and group membership would change if same-raced couples were excluded. For this analysis, finite mixture modeling was applied to only interracial couples. We input perceived discrimination, family social support, and friend social support variables simultaneously. Our analyses indicated an eight-component model was best fit according to the  $-2\log$ -likelihood function, AIC and BIC (See Table 4). Posterior probabilities were computed and determined each participant's predicted component. Component characteristics can be found in Table 5.

We expected that interracial couples involving White women and non-White men would experience the most perceived discrimination and have lower levels of social support from family and friends. This hypothesis was unsupported, as race seemed to have more of an impact in defining groups in most cases. Specifically, all Black-White couples were in one component despite which partner was the minority. These couples had the highest levels of perceived discrimination, while having the seventh and sixth ranked family and friend support of all the groups respectively. All Asian interracial couples were in another component with exception to Asian-All Other couples, Asian interracial couples had the second highest ratings of perceived discrimination, with similar levels of family support to Black-White couples, which had the lowest family support among the groups. Although unlike Black-White couples, these couples had the

second highest friend support among the groups. On the other hand, Asian All Other couples were in their own component and had similar rankings in both family and friend support, but had the lowest ratings of perceived discrimination. Hispanic Black couples were also in their own component and had the sixth ranked in both perceived discrimination ratings and family support, while ranking fourth in friend support.

Although gender did not make much of a difference in most cases, it did have an impact on some Hispanic interracial couples, with Hispanic-White couples being placed into two separate components. Couples involving a Hispanic man and White woman had the seventh ranked perceived discrimination ratings, highest level of family support and the sixth ranked friend support. While couples involving a Hispanic woman and White man had the fourth ranked perceived discrimination ratings and had the third ranked in both family and friend support. This gender difference similarly occurred in Hispanic-All Other couples, as they were also separated into two components. Couples involving Hispanic men and All Other women had the third ranked perceived discrimination ratings and the second highest family support and had the lowest friend social support. While couples involving Hispanic women and All Other men had the fifth ranked perceived discrimination ratings, family support and friend support. Taken together in Hispanic White and Hispanic All Other couples, Hispanic men tend to have more family support than Hispanic women, while Hispanic women have more friend support than Hispanic men.

## **Discussion**

The present study set out to understand whether different interracial couplings experience different types of stressors – those that may lead them to a higher risk of

dissolution than same raced couples. In particular, we focused on perceived discrimination, friend support and family support. Depending on the racial and gender combination of the couple, interracial unions can invoke opinions ranging from open acceptance to rigid intolerance that differ across levels of their social network. Intolerance can come in the form of discrimination from the general public or withdrawn support from within their social network. However, the extent to which these types of experiences are more or less unique across mixed-raced couples required further exploration. Accordingly, using finite mixture modeling; we classified couples based on the similarity of their ratings of perceived discrimination and support from family and friends.

In general, our results indicated that couples with Black partners tended to have the highest ratings of perceived discrimination. Previous studies indicate that Black Americans, on average, report higher levels of racism and discrimination than other racially minority groups; which include being ignored, overlooked and subject to rude treatment (Kessler, Mickelson & Williams, 1999; Pieterse, Carter, Evans & Walter, 2010; Sanders Thompson, 2006, Sellers and Shelton, 2003). As same-race partners comprise two Black individuals, it is unsurprising that they were found to have highest levels of perceived discrimination. With respect to interracial relationships, our findings further suggest that those involving Blacks are most at risk for perceived discrimination. Particularly, Black-White and Black-All Other relationships had highest ratings of perceived discrimination when same-raced couples were not included in analyses. Because of the history between Blacks and Whites, Black and White racial groups are suggested to be the most polarized races in the US. Although interracial relationships are

an indicator of improving race relations between groups, these couples can experience hostility from others (Killian, 2003). Our findings are therefore in line with previous studies that report interracial couples with a Black spouse encounter more discrimination (Root, 2001). Black-White married couples indicated that their unions receive more negative and condescending reactions in public from both Whites and racial minorities (Yancey, 2004; Lewis, 2014). Although Caucasians married to non-Black minorities alter their racial perspectives, such as on racial issues such as affirmative action; they do not experience racism as much as Whites married to Blacks (Yancey & Yancey, 2007).

Although previous research suggests that gender has made a difference in the terms of relationship satisfaction for different interracial couples (Bratter & King, 2008; Hohrmann-Marriott & Amato 2008), it did not presently make a significant difference in the types of stressors experienced or support received, as we originally hypothesized. Currently, race seems to make more of an impact on component membership than gender. In both analyses, couples with the same racial and gender composition tended to be in the same group. This result could suggest that racial differences drive the type of stress; in particular, the perceived discrimination a couple experiences and support received, rather than the prospective gender of the ethnic minority. Traditional approaches to the study of prejudice and discrimination have viewed sexism and racism largely within the same broad conceptual framework, essentially as different manifestations of the same underlying phenomenon (Sidanius & Veniegas, 2000). However, it seems that, albeit related, our findings indicate that these two forms of discrimination may be qualitatively and dynamically distinct.

Although gender was relevant in the grouping of Hispanic-White and Hispanic-All Other couples across our analyses. In our first analysis, these couples were in the same component with their perceived discrimination and family support ratings indicating they were more accepted by their society and family members than other interracial couples. This finding is in contrast of previous studies that indicate that marriages to Asians were more acceptable than out marriages to Hispanics (Pew Research Center, 2012). Yet, when same race couples were excluded, these couples separated into four different components. Hispanic cultures are found to have different gender roles where patriarchal authority characterize the male role, while women have a more submissive and caretaking role (Galanti, 2003). These differences in gender roles can explain why Hispanic men had higher ranked family support than Hispanic Women. As Hispanic men are viewed as an authority, their family may feel that they are to respect their decisions including their choice in partner and be supportive of the relationship. However, gender was only relevant when Hispanic men are paired with White or All-Other women, and not Black or Asian women. It is possible that there is a limit to honoring this authoritative role and acceptance of partner choice particularly when Hispanic men are paired with Black or Asian women. With these pairings, race of partner may result in lower support. This can account for why couples with Hispanic men and Black or Asian women have lower family support than Hispanic men with White or All-Other women. Conversely, Hispanic women are expected to defer authority to their husbands. Therefore, it is possible that as Hispanic women's focus may be expected to be on her own nuclear and her husband's extended family, resulting in lower family support from Hispanic extended family members.

Our results also indicate that same-race Asian couples have higher levels of family social support than do Asians involved in interracial relationships. Moreover, Asians involved in interracial relationships had higher levels of friend social support than same-race Asian couples. This can suggest that Asians in interracial relationships have a greater reliance on friends, which may be a result of lower family support. Family support may be higher in same-race Asian couples due to strong encouragement to marry within one's race in Asian cultures. Mutual obligations and shame are mechanisms that help to reinforce societal expectations and proper behavior (Kramer, Kwong, Lee, & Chung, 2002). Many Asian Americans have been disowned or cut off from their families for dating non-Asians (Fentress, 1992; Nachman, 1987; Sung, 1990). Asians who perceive their parents as having a lot of influence over partner choice therefore may be more likely to be in same-race relationships or, if they are in an interracial relationship, seek more social support from alternate places besides one's family (i.e., friends).

The importance of parental influence and adherence seems to be reflected in Asian American preferences when it comes to interracial dating and marriage. Fujino (1997) has hypothesized that Asian's attitudes reflect a bias towards lower participation in interracial relationships as the seriousness of the relationship increases. Asian Americans prefer to date individuals in other racial groups more than they prefer to marry them. Yet they prefer to marry within their own racial group significantly more than they prefer to date them. Fujino (1997) also notes parental preferences did not affect the participants' dating behaviors, although it is unknown if these parental influences affect their choice of a marital partner. As Asian Americans have the highest interracial



marriage rates among the racial groups, family and parental influences on relationship stability should be further studied.

Acculturation may also be a factor for increased reliance on support from friends, rather than family in interracial couples with Asian partners. Acculturation can be defined essentially as change occurring pursuant to continuous contact between cultural groups (Mok, 1999). Although acculturation may affect both cultural groups in contacts with one another, the term is generally used to refer to the change within an immigrant or minority ethnic group to become more in line with dominant majority group. During the process of acculturation, Asians may find themselves in a struggle to be in line with the dominant culture while also maintaining some of their more traditional values. Traditional Asians value interdependence while American values focuses more on attending to the self and maintaining independence. The contrast between the Asian's traditional culture of family interdependence and American individualism has caused stress among immigrants and later generations (Kim, 2010). Interracial marriages may benefit immigrants or ethnic minorities to become part of the dominant culture, though they may lose identification with their own culture (Chen & Takeuchi, 2011). Therefore, it is possible that Asian partners with interracial couples may seek more support from friends who may share the dominant culture's values than attaining support from their family who have more traditional values.

### **Limitations and Strengths**

There are a number of limitations that must be addressed in the present study. First, the datasets analyzed were cross-sectional, so findings should not be considered casual. For example, it is unclear whether participants who had lower social support

ratings experienced a loss of support due to their partners' ethnicity or whether participants who experienced lower levels of social support were more willing to seek out-group partners. A prospective study would be better able to address the causal direction of these effects. Second, only one partner from each couple was surveyed. Third, perceptions of social support availability and discrimination can vary for many reasons other than exclusively being in an interracial relationship. For example, participants may have responded based on their own individual discrimination experiences being a racial minority, as opposed to discrimination experiences due to be in an interracial couple. Finally, the data are – of course – correlational, with all of the caveats that should be considered with non-experimental research.

Despite our limitations, the present study had a number of strengths. First, using a large data set that oversampled Asian Americans, Blacks, and Hispanics allowed for the comparisons of several combinations of interracial couples. Comparisons were made not only between ethnic minorities partnered with Whites (e.g., Black-White pairings), but also interracial combinations between minorities (e.g., Hispanic-Asian pairings). As studies involving interracial couples do not often include different interracial combinations, this extends previous research by comparing different interracial couples. Second, this study also took into account how different racial pairings can vary by gender. By considering gender, we were able to classify eighteen different types of interracial couples (and four types of same race couples). Third, our use of finite mixture modeling allowed us to find naturally occurring groups among participants without having assumptions about how the groups exist or relate to one another as do other clustering methods (Lenzenweger, McLachlan & Rubin, 2007). Finite mixture modeling

also provides a more objective statistical approach to evaluate how many groups there are in the data, as opposed to other clustering methods that rely on more subjective judgements.

### **Future Directions**

Future studies should consider other variables that are thought to challenge interracial couples. For example, racial identity can play a role in the lives of interracial couples. Racial identity refers to the quality or manner of a person's identification with a racial group based on the perception of a shared racial heritage (Helms, 1990). Having a strong racial identity can serve as a psychological buffer against discrimination (Phinney, 1996). However, being in an interracial relationship may cause uncertainty in or accentuate an awareness of one's racial identity. Ethnic minorities are questioned by members of their own race. For example, Blacks often have their Blackness challenged by other Blacks. On the other hand, Whites who are previously unaware of the racial identity, become more aware of their racial privilege when they enter an interracial relationship. (Hill & Thomas, 2000). As a result of being partnered with an ethnic minority, they can lose their White status or some of their racial privileges. Both partners may experience not being fully accepted by members of their respective race. Consequently, they often take on multiple racial identities or can feel a sense of uncertainty, which can impact the relationship. The issue of racial identity has been found to influence interracial marriages even after several years of marriage (Leslie & Letiecq, 2004). Furthermore, racial identity has been found to be a predictor of marital quality in interracial relationships. Partners who had developed a strong racial identity, but were also accepting of other races and cultures, experienced higher marital quality.

Racial identity and other variables should be considered as challenging and protective factors for types of interracial couples in future studies.

### **Conclusion**

Interracial relationships have been designated as one subgroup of relationships and previous studies have found interracial relationships are at higher risk for dissolution and experience unique challenges in comparison to other groups. The present study makes note of the considerable heterogeneity among interracial couples, as acceptance and challenges faced within this subgroup vary. Our findings suggest that interracial couples involving Black partners are at the most risk for discrimination. Furthermore, interracial couples involving Asian partner may rely more on friends for support, as they have less family social support in comparison to same-race Asian couples. Findings suggests that – although it is possible that some interracial relationships may encounter specific problems – it these difficulties do not apply equally to the all mixed-race couples. This heterogeneity should be considered in research studies concerning interracial relationships, as findings may variable across this broad group.

Table 1

*Participants Characteristics*

| Characteristic            | N    | %     |
|---------------------------|------|-------|
| <b>Age</b>                |      |       |
| 18-19                     | 33   | .6%   |
| 20-29                     | 889  | 16.4% |
| 30-39                     | 1574 | 29.1% |
| 40-49                     | 1338 | 24.7% |
| 50-59                     | 868  | 16.0% |
| 60-69                     | 460  | 8.5%  |
| 70+                       | 251  | 4.6%  |
| <b>Gender</b>             |      |       |
| Men                       | 2575 | 47.6% |
| Women                     | 2838 | 52.4% |
| <b>Years of Education</b> |      |       |
| 0-11 Years                | 1317 | 24.3% |
| 12 Years                  | 1492 | 27.6% |
| 13-15 Years               | 1242 | 22.9% |
| Greater than 15 Years     | 1362 | 25.2% |
| <b>Employment Status</b>  |      |       |
| Employed                  | 3816 | 70.5% |
| Unemployed                | 323  | 6.0%  |
| Not in Labor Force        | 1270 | 23.5% |

*Note.*  $M_{\text{age}} = 42.84$  ( $SD = 13.72$ )

Table 2

*Classification of Same-Race and Interracial Relationships*

| Number of<br>Components | -2 Log Likelihood | AIC      | BIC      |
|-------------------------|-------------------|----------|----------|
| 2                       | -3451.09          | -3441.09 | -3414.24 |
| 3                       | -3451.09          | -3435.09 | -3392.13 |
| 4                       | -534479           | -534457  | -534398  |
| 5                       | 10230.75          | 10258.75 | 10333.93 |

*Note.* Four components were deemed best, as smaller values are better

Table 3

*Classification of Same-Race and Interracial Relationships – Component Characteristics*

| Component #               | N    | Racial and Gender Composition of Couple in Component | Perceived Discrimination |                            | Family Social Support |           | Friend Social Support |                           |
|---------------------------|------|--|--------------------------|----------------------------|-----------------------|-----------|-----------------------|---------------------------|
|                           |      |  | % of response            | M (SD)                     | % of response         | M (SD)    | % of response         | M (SD)                    |
| 1                         | 867  | Same-Raced Asians                                    | 18.2%                    | 18.17 (4.69) <sup>ac</sup> | 100%                  | .01 (.48) | 59.1%                 | -.22 (.82) <sup>abc</sup> |
| 2                         | 969  | Same-Raced Blacks                                    | 25%                      | 22.09 (6.9) <sup>ab</sup>  | 82%                   | .04 (.66) | 77%                   | -.01 (.81) <sup>ad</sup>  |
| 3                         | 901  | Asian Man-Hispanic Woman                             | 13.3%                    | 20.18 (7.25) <sup>c</sup>  | 91%                   | .00 (.63) | 76%                   | .10 (.78) <sup>bd</sup>   |
|                           |      | Asian Woman-Hispanic Man                             |                          |                            |                       |           |                       |                           |
|                           |      | Asian Man-Black Woman                                |                          |                            |                       |           |                       |                           |
|                           |      | Asian Woman-Black Man                                |                          |                            |                       |           |                       |                           |
|                           |      | Asian Man-White Woman                                |                          |                            |                       |           |                       |                           |
|                           |      | Asian Woman-White Man                                |                          |                            |                       |           |                       |                           |
|                           |      | Asian Man-All Other Woman                            |                          |                            |                       |           |                       |                           |
|                           |      | Asian Woman-All Other Man                            |                          |                            |                       |           |                       |                           |
|                           |      | Same-Raced Hispanics                                 |                          |                            |                       |           |                       |                           |
|                           |      | Hispanic Man-Black Woman                             |                          |                            |                       |           |                       |                           |
| Hispanic Woman-Black Man  |      |  |                          |                            |                       |           |                       |                           |
| Black Man-White Woman     |      |  |                          |                            |                       |           |                       |                           |
| Black Woman-White Man     |      |  |                          |                            |                       |           |                       |                           |
| Black Man-All Other Woman |      |  |                          |                            |                       |           |                       |                           |
| Black Woman-All Other Man |      |  |                          |                            |                       |           |                       |                           |
| Same-Raced Whites         |      |  |                          |                            |                       |           |                       |                           |
| 4                         | 1136 | Hispanic Man-White Woman                             | 15.7%                    | 18.15 (6.62) <sup>b</sup>  | 99%                   | .04 (.60) | 67.2%                 | .00 (.89) <sup>c</sup>    |
|                           |      | Hispanic Woman-White Man                             |                          |                            |                       |           |                       |                           |
|                           |      | Hispanic Man-All Other Woman                         |                          |                            |                       |           |                       |                           |
|                           |      | Hispanic Woman-All Other Man                         |                          |                            |                       |           |                       |                           |

*Note.* Means sharing a common superscript are statistically different at  $p < .05$  according to post-hoc analyses.

Table 4

*Classification of Interracial Relationships without Same-Raced Couples*

| Number of<br>Components | -2 Log Likelihood | AIC     | BIC     |
|-------------------------|-------------------|---------|---------|
| 6                       | 2900.33           | 2940.33 | 3027.87 |
| 7                       | 2900.33           | 2946.33 | 3047    |
| 8                       | 1954.37           | 2004.4  | 2107.41 |
| 9                       | 1954.37           | 2006.37 | 2120.16 |

*Note.* Eight components were deemed best, as smaller values are better.



Table 5

*Classification of Interracial Relationships without Same-Raced Couples – Component Characteristics*

| Component # | N   | Racial and Gender Composition of Couple in Component   | <u>Perceived Discrimination</u> |                            | <u>Family Social Support</u> |                          | <u>Friend Social Support</u> |                             |
|-------------|-----|--|---------------------------------|----------------------------|------------------------------|--------------------------|------------------------------|-----------------------------|
|             |     |  | % of response                   | M (SD)                     | % of response                | M (SD)                   | % of response                | M (SD)                      |
| 1           | 64  | Hispanic Man-Black Woman<br>Hispanic Woman-Black Man   | 20.3%                           | 17.85 (10.12)              | 95%                          | -.034 (.63)              | 84%                          | -.0064 (.89)                |
| 2           | 279 | Hispanic Man All-Other Woman   | 29%                             | 19.61 (7.41)               | 99%                          | .045 (.54)               | 65%                          | -.19 (.84) <sup>abc</sup>   |
| 3           | 327 | Hispanic Man-White Woman   | 25%                             | 18.89 (6.25)               | 99%                          | .064(.49) <sup>ab</sup>  | 78%                          | -.61(.89) <sup>de</sup>     |
| 4           | 278 | Hispanic Woman-All Other Man   | 22%                             | 17.90 (6.55)               | 99%                          | -.022 (.63)              | 73%                          | -.041 (.78) <sup>f</sup>    |
| 5           | 150 | Asian Man-All Other Woman<br>Asian Woman-All Other Man   | 26%                             | 16.72 (4.69) <sup>a</sup>  | 100%                         | -.018(.49)               | 72%                          | .2936 (.79) <sup>adeg</sup> |
| 6           | 111 | Black Man- White Woman<br>Black Woman-White Man<br>Black Man-All Other Woman<br>Black Woman-All Other Man  | 27%                             | 23.29 (8.91) <sup>ab</sup> | 72%                          | -.2332(.93) <sup>b</sup> | 70%                          | -.1394(.793) <sup>fg</sup>  |
| 7           | 362 | Hispanic Woman-White Man   | 17%                             | 17.21 (5.07) <sup>b</sup>  | 100%                         | .0200(.66)               | 75%                          | .1289(.87) <sup>b</sup>     |
| 8           | 167 | Asian Man-Hispanic Woman<br>Asian Woman-Hispanic Man<br>Asian Man-Black Woman<br>Asian Woman-Black Man<br>Asian Man-White Woman<br>Asian Woman White Man | 25%                             | 20.95 (7.57)               | 100%                         | -.1006(.59) <sup>a</sup> | 67%                          | .2388 (.81) <sup>cc</sup>   |

*Note.* Means sharing a common superscript are statistically different at  $p < .05$  according to post-hoc analysis

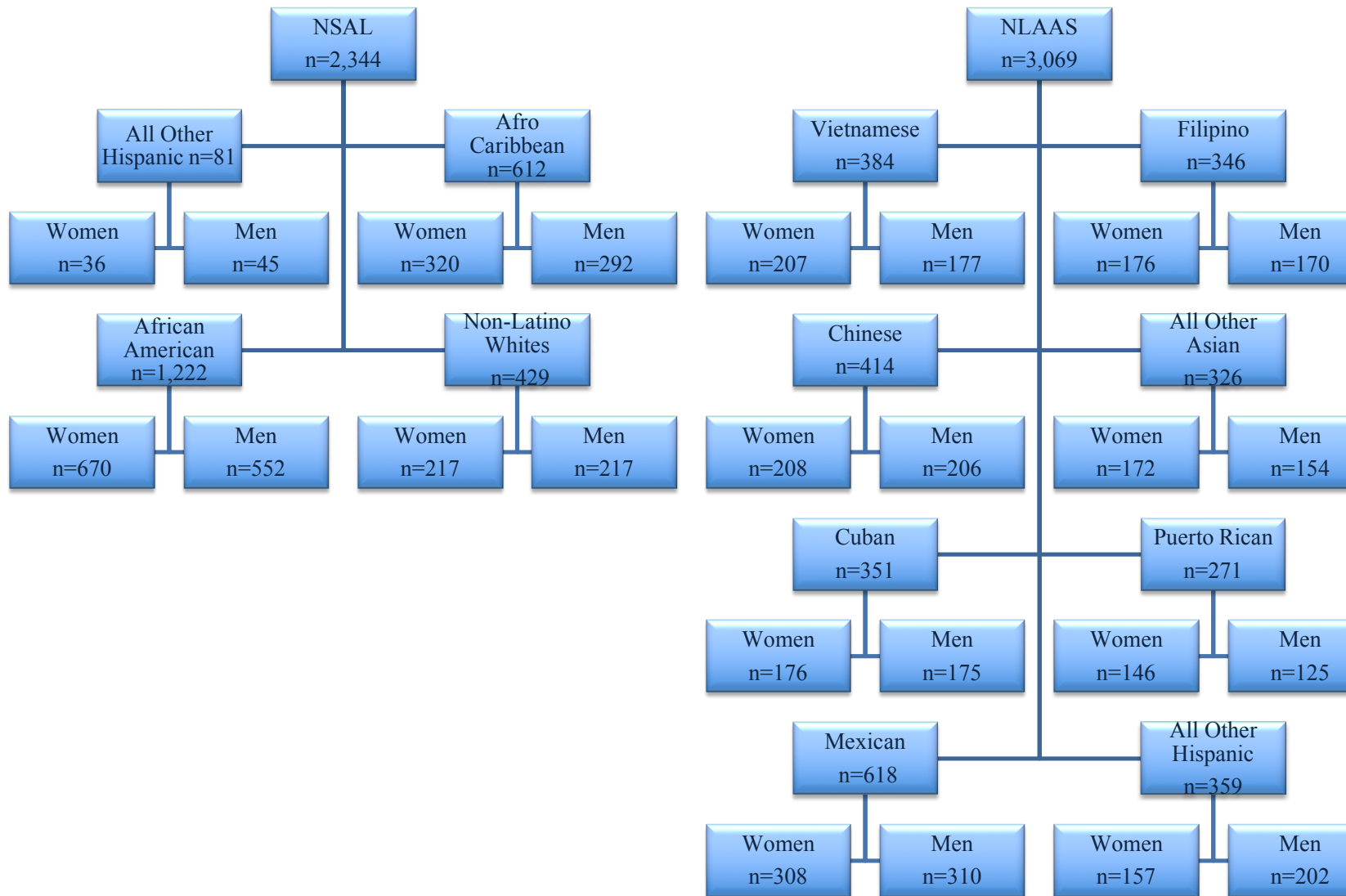


Figure 1. Ethnic and Gender Breakdown of Sample

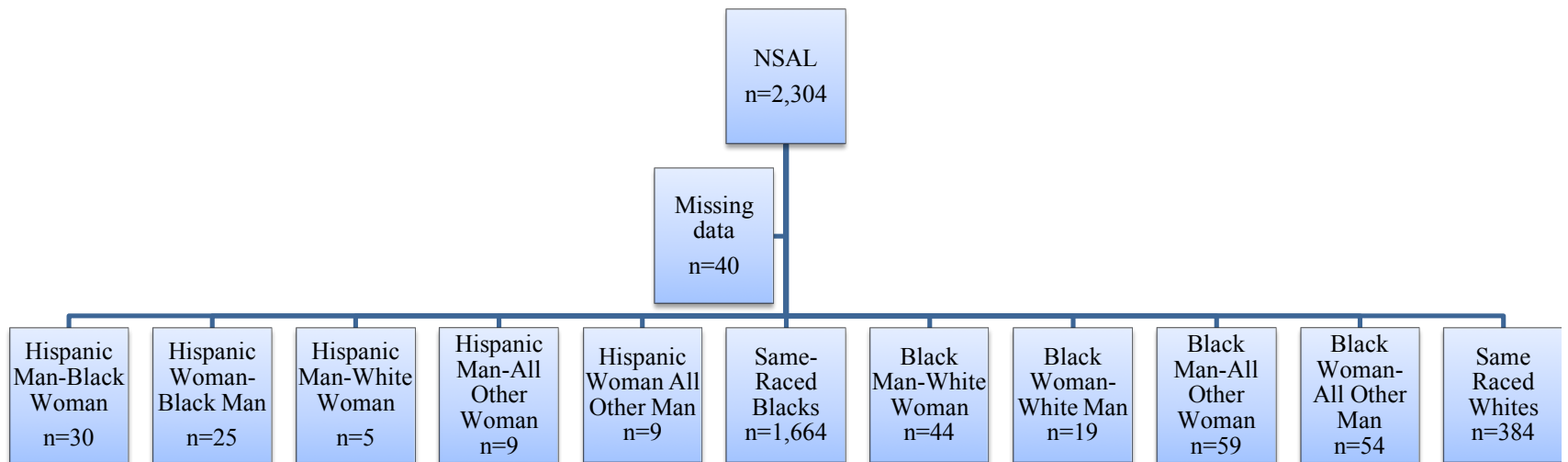


Figure 2: NSAL Ethnic and Gender Breakdown by Couple

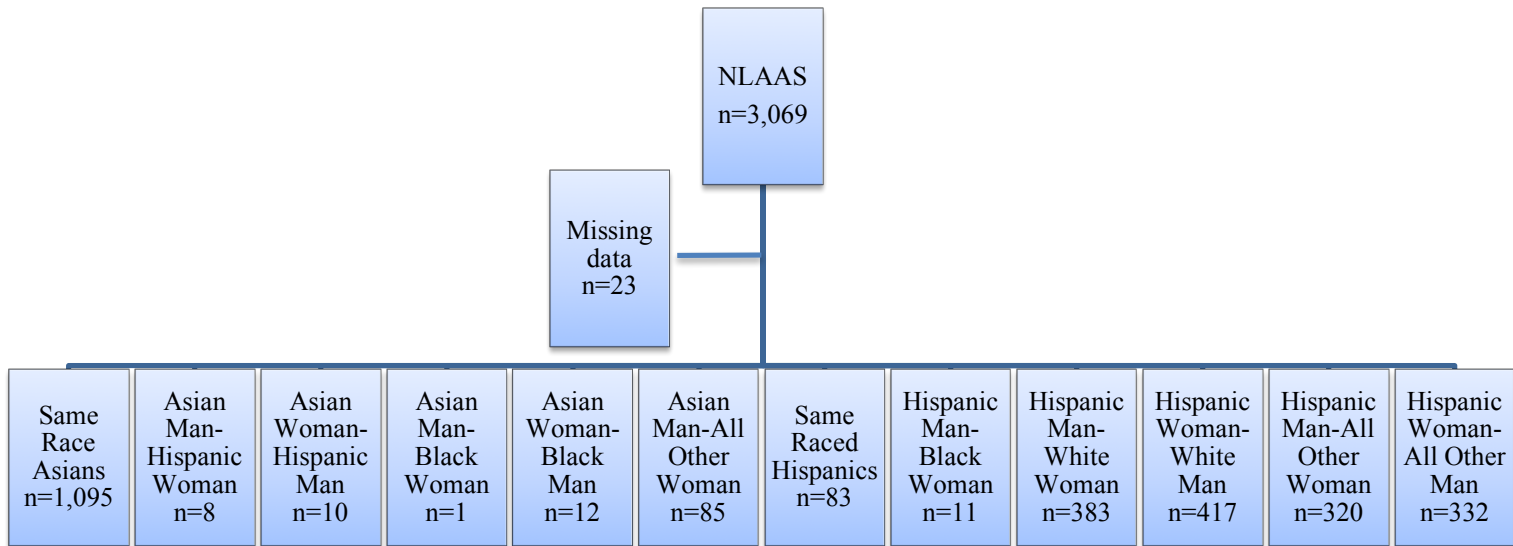


Figure 3. NLAAS Ethnic and Gender Breakdown By Couple

## Chapter 2: Implicit and Explicit Attitudes toward Interracial Relationships

Until the U.S. Supreme Court overturned them in 1967 (*Loving v. Virginia*, 1967), anti-miscegenation laws forbade interracial relationships. Since then, the number of interracial couples in the United States has increased five times (Hattery & Smith, 2009), comprising 8.4% of all marriages in 2010 (Taylor et al., 2012), and is expected to continue to increase in coming years (Qian, 2005; Zhang & Van Hook, 2009). As interracial relationships have become more common, there has been a shift in attitudes toward these relationships with Americans reporting increasing rates of approval of these relationships. Compared to only 4% of American adults in 1958, 77% of American adults approved of these relationships in 2007 (Carroll, 2007).

### **Bias Against Interracial Relationships**

Increasing rates of acceptance at a societal level may conceal individual-level views on the appropriateness of these relationships for themselves or their loved ones (Bonilla-Silva & Forman, 2000; Herman & Campbell, 2012). While individuals are tolerant of interracial relationships, few individuals actually engage in interracial dating, with most people choosing partners within their racial group. The disinclination to date outside of one's racial group may be partly due the stigma surrounding interracial relationships. Interracial couples report facing prejudice and discrimination including disapproval and ostracism from family, friends, and the general public (Carbone-Lopez, 2013; Martin, Campbell, Ueno, & Fincham, 2013; Potter & Thomas, 2012; Troy, Lewis-Smith & Laurenceau, 2006). Given that interracial couples are found to experience discrimination, it is important to understand how these romantic relationships differ from other relationships in a way that invokes this prejudice (Miller, Olson & Fazio, 2004).

While experiences of overt discrimination can be challenging, simply anticipating the negative perceptions and reactions of others can have a negative impact on interracial couples. Stereotype threat is the anxiety and self-doubt that can arise when one acknowledges there is a possibility of being judged or treated negatively on the basis of a negative stereotype about one's group (Steele, 1997; Steele & Aronson, 1995). Given the stereotypes surrounding interracial couples, such as being perceived as "immoral," "unnatural," or "exotic" (Hattery & Smith, 2009; Killian, 2003), it is possible that these stereotypes may increase doubt and uncertainty about the relationship (Steele, Spencer & Aronson, 2002). Interracial couples may be more cautious around others due to stereotype threat. For example, compared with couples in same-race relationships, interracial couples are more likely to hide their relationship because of a fear of rejection (Fusco, 2010; Wang, Kao & Joyner, 2006). When in public, couples also report being less affectionate and altering their behavior in order to allay any potential demonstrations of opposition to their relationship (Killian, 2001; Vaquera & Kao, 2005). While stereotype threat may lead couples to change their behavior in ways that are subtle and not conscious, there are also ways in which bias against interracial couples may be expressed in subtle and unconscious ways.

Implicit preferences and attitudes about relationships offer an explanation of why interracial couples may be perceived unfavorably. Initial judgments of couples are automatic and based on implicit understanding of prototypical relationship types, which is often determined by easily observable features (Forgas, 1993). As judgments are often made based on what is typical, appropriate, and accepted, interracial couples may violate perceivers' beliefs about what makes a couple well-matched (Forgas & Dobosz, 1980).

Indeed, interracial couples are perceived as less compatible and stable than same-race couples (Frankenberg, 1993; Killian, 1997; Lewandowski & Jackson, 2001; Zebroski, 1999). Therefore, it is possible that opposition to interracial relationships may be a reflection of a personal preference for same-race relationships rather than racial prejudice (Golebiowska, 2007).

### **Acceptance and Mate Selection Patterns of Interracial Relationships**

Perceptions of interracial relationships may depend on the racial groups of both partners involved in the relationship. Although interracial couples are often considered a group, there is considerable variance in perceptions of acceptability among interracial couples of different race and gender compositions. While research involving the different types of interracial couples is limited, the acceptability of different racial and gender pairings appears tied to social status more generally (i.e., Whites being a high-status group; Asians being the “model minority,” while Hispanics and Blacks are low status groups; Chao, Chiu, Chan, Mendoza-Denton & Kwok, 2013; Fang, Sidanius & Pratto, 1998; Hwang, 2013; Miller et al., 2004). Interracial marriage involving Whites has a slightly higher acceptance rate at 81% than interracial marriage involving Asians (75%), Hispanics (73%) or Blacks (66%; Pew Research Center, 2012). Similarly, Whites tend to be more opposed to a close family member marrying a Black person than an Asian person (Golebiowska, 2007). This is consistent with Whites having more positive stereotypes of Asians than Blacks or Hispanics (Charles, 2006).

The different acceptance rates among interracial couples correspond with mate selection patterns. As same-race relationships are more widely accepted than interracial relationships, it is unsurprising that most people prefer to date within their racial group

(Harris & Ono, 2005; Hitsch, Hortascu & Ariely, 2006; Hwang, 2013; Levin, Taylor & Caudle, 2007; Liu, Campbell & Condie, 1995; Qian, 1997; Yancey, 2002). However, Whites who dated interracially were most likely to choose Hispanics, followed by Asians and Blacks, while Hispanics were most likely to have chosen Whites, followed by Blacks and Asians (Fiebert, Kasdan & Karamol, 2000). Fujino (1997) found that Whites and Asians who dated interracially were mostly likely to date Whites or other Asians, followed by Hispanics, and were least likely to date Blacks. Interracial marriages patterns have similar findings, as Black and Whites are less likely to marry interracially than Asians and Hispanics with Whites (Harris and Ono, 2005). Qian and Lichter (2007) found similar results with Whites being more likely to marry Asians and Hispanics than Blacks. As other groups are less willing to partner with Blacks than Blacks are willing to partner with them, it is suggestive that higher status groups are less willing to date or marry partners who may be perceived to be in a lower racial status group (Hwang, 2013).

In addition to the racial combination of the couple, gender is also a factor in the perception of interracial couples. Race and gender stereotypes tend to overlap, with associations being found at the implicit level (Galinsky, Hall & Cuddy, 2013; Johnson, Freeman & Pauker, 2012). These stereotypes are predictive of interracial dating preferences and patterns and linked to relationship disapproval. They also influence individual perceptions of each partner in the relationship. For example, marrying interracially can be a professional liability for men (Lewandowski & Jackson, 2001). White men who married interracially were perceived as less likely to be professionally successful than men in same-race marriages. Black and Asian men who married interracially were perceived as less competent and possessing low cultural values. On the



other hand, for minority women, marriage to White men can be perceived as trying to attain upward social and economic mobility (Wieling, 2003; Miller et al., 2004).

Whereas, women who are married to a partner with lower racial status (Hispanic or Black men) are likely to experience disapproval from family and friends (Miller et al., 2004).

The limited research on bias toward interracial couples mainly focuses on the experiences of Black-White relationships; however, the variability of acceptance among different combinations of race and gender (Pew Research Center, 2012, Golebiowska, 2007) suggest that bias regarding interracial relationships cannot be generalized from Black-White couples. Indeed, the different rates of acceptance and challenges experienced by different racial and gender couple compositions have been used to create taxonomies of interracial couples (see Midy, Mattson & Johnson, submitted). The examination of attitudes toward interracial marriage remains important and provides an important perspective on intergroup relations, as it can be a proxy for race relations and acceptance of other groups (Johnson & Jacobsen, 2005).

### **Attitudes and Interracial Relationships**

Despite inherent drawbacks, researchers have traditionally used self-report measures to measure attitudes. Explicit attitudes are typically well-considered responses for which people have the motivation and opportunity to weigh the costs and benefits of their choices. Although given societal norms prohibiting the expression of racial prejudice, it is likely that rates of disapproval are underestimated due to social desirability (Franca & Monteiro, 2013). As an alternative approach, implicit measures may be a better avenue to understand racial attitudes as they are more difficult to monitor and control and are associated with subtle manifestations of bias (Nosek, Banaji & Greenwald, 2002).

Although implicit and explicit attitudes are similar at times (Blair, 2001; Dovidio, Kawakami & Beach, 2001; Wilson, Lindsey & Schooler, 2000), they often differ for socially sensitive issues such as race and discrimination (Dovidio & Fazio, 1992).

In order to assess implicit attitudes, researchers have used implicit association tests (IATs) that measure the relative ease with which people are able to make associations between certain groups of people (Greenwald, McGhee & Schwartz, 1998). Ease of association measured by judgment speed is taken as evidence for an implicit held attitude toward that social group. Despite criticisms of the measure's arbitrary nature (Blanton & Jaccard, 2006), a meta-analysis of more than 100 studies concluded that scores on the IAT reliably predict people's behavior and attitudes (Greenwald, Poehlman, Uhlmann & Banaji, 2009). The IAT has been widely used for measuring a variety of attitudes including race and gender (Greenwald, McGhee & Schwartz, 1998; McConnell & Leibold, 2001; Rudman, Greenwald & McGhee, 2001). Recently, IAT scores were found to be a better predictor of interracial behavior than self-report (Greenwald et al., 2009).

Although acceptance rates of interracial couples are continuing to increase (Potter & Thomas, 2012), these self-reported measures do not reflect implicit attitudes. In a recent study of affective bias towards interracial couples, researchers used the IAT to measure implicit attitudes towards Black and White interracial couples (Skinner & Hudac, 2016). After researchers found interracial couples were more associated with feelings of disgust relative to same-race couples, researchers were curious whether these feelings of disgust were linked to the dehumanization of interracial couples. Participants completed an IAT, which was adapted to assess whether participants associated interracial couples with human or non-human animals. Participants were asked to categorize photographs of

same-race and interracial couples and silhouettes of humans and animals using an IAT. Participants were quicker to associate interracial couples with non-human animals and same-race couples with humans, suggesting that interracial couples were more likely to be dehumanized than same-race couples. Although this study was the first to examine implicit biases towards interracial couples, researchers limited their evaluation to only Black and White couples. Gender of the minority couple member was also not systematically varied in the images used for the IAT. Therefore, it is unclear whether all interracial couples are perceived in the same negative manner.

### **The Current Study**

As research on the different types of interracial couples besides Black and White relationships is somewhat limited and dated, I examined both implicit and explicit attitudes towards interracial couples. As the multidimensional conceptualization of culture can be complex (Chao & Moon, 2005), the study exclusively focused on the aspects of race and gender. Through the use of IATs, the study's primary aim was to understand how 12 different interracial couples of various racial and gender compositions are evaluated by others compared with their same-race counterparts. For example, an Asian man-Black woman couple was compared with both a same-race Asian couple and a same-race Black couple. Explicit measures of interracial dating attitudes and racial attitudes were also assessed in order to make comparisons with implicit attitudes towards interracial couples. Furthermore, the study served to replicate previous IAT findings (Axt, Ebersole & Nosek, 2014) as IATs also featured individuals of different races.

Specifically, I hypothesized the following:

1. Interracial couples will be evaluated more negatively than same-race couples.

2. Based on previous studies of acceptance rates of interracial couples (Passel, Wang & Taylor, 2010), I predict Black and White relationships will be evaluated the most negatively out of all interracial couples, whereas Asian-White relationships will be the most positively evaluated of all the interracial couples.
3. I expect White-woman-Black man couples to be the most negatively evaluated out of all interracial couples. With the exception of Black-White relationships and White women partnered with non-White men, in terms of White-minority couples, I expect couples including minority women to be evaluated more positively compared with couples including minority men. For example, White man-Asian woman relationships will be evaluated more positively than White women-Asian men relationships. The same will be true of White man-Hispanic woman couples.
4. Participants with more explicit negative racial attitudes will be more likely to evaluate interracial couples negatively compared with participants with more explicit positive racial attitudes.
5. I predict implicit interracial attitudes will be more negatively biased than explicit interracial attitudes.

These hypotheses were registered *a priori* with AsPredicted.org under the title "Social Bias toward Interracial Couples" (#9248), which is publicly available at <https://aspredicted.org/5v6ra.pdf>.

## Method

### Participants

I recruited 524 participants through Amazon's Mechanical Turk (MTurk). Participants had to be over the age of 18, living in the United States, and have at least a 70% approval rating on MTurk. Participants received monetary compensation for their time and effort.

Participants were mostly women (61.8%) and ranged in age (18 to 76;  $M_{\text{age}} = 37.48$ ,  $SD = 12.33$ ). In terms of race, our recruited sample was consistent with national demographics (U.S. Census Bureau, 2016), with my sample having a slightly higher percentage of Asians (6.9%) and lower percentages of Blacks or African Americans (7.4%) and Hispanic (6.5%). In terms of marital status, most participants identified being currently in a relationship living with a partner (47.3%) followed by single (21.0%), in a relationship but not living with a partner (13.2%), widowed (9.7%), separated (5.2%), divorced (1.7%) then married (1.3%). See Table 1 for other participant characteristics.

### Research Design

This experiment used a 12 x 1 between subjects research design. Participants were randomly assigned to one of twelve conditions. Each condition corresponded to the twelve different interracial couples that were evaluated during the experiment. As each participant completed IATs featuring individual men and women in addition to the IATs featuring interracial couples, conditions also corresponded to which racial groups were being evaluated during the individual IATs. For example, a participant assigned to the condition evaluating Black woman-Hispanic man interracial couples, also evaluated Black and Hispanic men and women during the individual IATs.

## **Materials**

Pictures of individuals and other sex couples were evaluated during the IAT. In order for results to be comparable to previous results, the four racial categories (White, Black, Hispanic and Asian) used by the Pew Research Center (2012) were used, which is consistent with U.S. Census categories. One man and one woman from each racial group were arranged in other-sex pairings in order to create 16 couples of different racial and gender compositions (i.e., Black man-White woman, Hispanic man-Asian woman). These individuals were recruited from Binghamton University student population; therefore, couples were of similar age. Couples were photographed together in three different positions (i.e., holding each other romantically) to indicate they are in a romantic relationship. The positioning of the couple was consistent across all conditions.

After all photos were collected, a group of diverse research assistants voted on which photos were to be used for the IATs. Photos were rated based on whether the two individuals in the couple were representative of their respective racial groups. Raters had to be able to correctly identify both individuals' racial group in order for it be used in the study. Only photos where there was a majority agreement were used in the study and photos where an individual's race was questionable were not used.

The experiment's classification tasks used positive and negative stimulus words. The positive (e.g. joy, peace, wonderful, love, happy) and negative words (e.g., agony, terrible, evil, awful, horrible) were selected from words used in previous IATs (Nosek, Banaji, Greenwald, 2002; Xu, Nosek & Greenwald, 2014).

## **Measures**

Reaction time difference scores (D-scores) were calculated from IATs to assess for implicit attitudes. The D-score algorithm procedure was validated by Greenwald et al. (2003), who found it maximized IAT reliability. D-scores can range from -2 to 2. A score of 0 indicates no difference in reaction time (no bias); a positive score indicates a participant was faster in the compatible block (Target A + Positive; Target B + Negative) and a negative score indicates a participant was faster in the incompatible block (Target A + Negative; Target B + Positive). Split half reliability for each IAT was sufficient,  $r > .70$ .

The Interracial Dating Attitudes Scale is a 20-item scale designed to measure explicit attitudes towards interracial couples (Whatley, 2004). Example items include: “*I believe that interracial couples date outside of their race to get attention,*” and “*As long as the people involve love each other, I do not have problem with interracial dating.*” Items were scored on a 7-point Likert-type scale ranging from 1 (Strongly disagree) to 7 (Strongly agree). Some items were reverse scored so that higher scores indicated more negative attitudes toward interracial dating. Inter-item reliability was high, coefficient alpha = .97. Interracial Dating Attitudes Scale scores were log transformed to correct for skew. Refer to Table 2 for descriptive statistics and intercorrelations for self-report measures.

Explicit racial attitudes were measured through the Color Blind Racial Attitudes Scale (CoBRAS; Neville, Lilly, Duran, Lee & Brown, 2000). The CoBRAS is a 20-item scale that comprises three dimensions (a) unawareness of racial privilege, (b) institutional discrimination, and (c) blatant racial issues. Example items include: “*White people in the U.S. have certain advantages because of the color of their skin*” and “*Race problem in the*

*U.S. are rare, isolated situations.*” Items were scored on a 5-point Likert-type scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). Some items were reverse scored so that higher scores indicated more negative racial attitudes. Neville and colleagues have provided substantial evidence of the scale’s reliability and validity. They found that the CoBRAS was highly correlated with other measures of racism and belief in a just world. Inter-item reliability was high, coefficient alpha = .94.

Social desirability was measured with the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960), which assesses whether respondents are responding truthfully or misrepresenting themselves. Example items include: *“I never hesitate to go out of my way to help someone in trouble”* and *“It is sometimes hard for me to go on with my work if I am not encouraged.”* Participants responded to items using a true or false format. Inter-item reliability was high, coefficient alpha = .85.

## **Procedure**

Participants provided informed consent, completed demographic information, then randomly assigned to one of twelve possible sets of IATs. Each set includes four IATs: the first featuring photos of individual men, the second featuring photos of individual women, and the last two featuring the interracial couple compared with their same race counterparts. The IATs featuring interracial couples were counterbalanced for order effects.

The IAT consists of seven blocks or sets of trials. In each trial, participants were presented with a stimulus (e.g., a word or photograph) that appeared in the middle of the computer screen. Participants were instructed to sort the stimuli into their respective categories as rapidly as possible by pressing corresponding response keys. Labels



reminding participants of the categories were located on the corners of the screen and remain there throughout the procedure. Label positions were counterbalanced for each IAT.

In the initial block of trials, participants were asked to classify two contrasted concepts with one trial asking participants to classify photos (of individuals or couples) and the second trial positive and negative words. Participants were instructed to classify these concepts by pressing one of two keys (i.e., “e” for interracial and “i” for same-race). Then in the first combined task, participants were presented all four categories with one contrasting concept paired with the other (i.e., “interracial or positive” and “same-race or negative”). Participants were asked to press a key corresponding for one pairing of the contrasting concepts and another key for the second pairing (i.e., “e” for “interracial or positive” and “i” for “same race or negative”) In the next trial, the second combined task, participants were presented the four categories with the order switched (i.e., “interracial or negative” and “same-race or positive”). Just as the first combined task, participants were asked to press a key corresponding for one pairing of contrasting concepts and another key for the second pairing. If participants made an incorrect response, participants were forced to correct their mistake before moving on.

After the completion of the four IATs, participants completed questionnaires on interracial dating and racial attitudes. Additional demographic questions pertaining to interracial relationship behavior (i.e., if they are involved in an interracial relationship) were asked. Then participants were debriefed and thanked for their time and effort.

## **Results**

### **Preliminary Analyses**

Prior to hypothesis testing, preliminary analyses were conducted. The data were cleaned, checked for statistical assumptions, and, where necessary, transformed based on procedures recommended by Tabachnick and Fidell (2007). A D-score was calculated for the four IATs for each participant. As the D-score algorithm procedure was used, data cleaning procedures recommended by Greenwald et al., (2003) were implemented which are as follows: Individual trials over 10,000 ms were deleted, as well as any IAT data from participants with more than 10% of their responses was less than 300 ms. Next, within-person difference scores were calculated using each participant's block means. These were divided by inclusive standard deviations, generating two scores per participant. These were then averaged, creating a single D-score. This D-score algorithm resulted in a loss of 77 participants and the sample used for analysis included 447 participants ( $N = 447$ ).

### **Replication Analysis**

The present study was designed to replicate previous race IATs studies, which indicate that individuals evaluated their own racial group most positively and the remaining racial groups in accordance with the following hierarchy: Whites, Asians, Blacks, Hispanics (Axt et al., 2014). A two-way ANOVA was conducted to examine the effects of participant race and condition on implicit attitudes. In order for results to be comparable to previous results, only participants who identified themselves as either White, Black, Hispanic or Asian were included in these analyses. As this hypothesis focuses on the racial groups being evaluated, conditions were collapsed across gender.

The average of the two D-scores for the IATs featuring individual men and individual women was calculated and used for analysis. D-scores were normally distributed as assessed by Shapiro-Wilk's test,  $p > .05$ , and although there was heterogeneity of variances, as assessed by Levene's test for equality of variances,  $p = .04$ . As the homogeneity of variance assumption was violated, a more stringent alpha level ( $\alpha = .025$ ) was used (Tabachnick & Fidell, 2007). There was a statistically significant interaction between participant race and racial groups evaluated on D-scores,  $F(15, 356) = 2.94, p < .01$ , partial  $\eta^2 = .10$ . Refer to Figure 1 for descriptive statistics and pairwise comparisons.

Follow up analyses determined there was a statistically significant difference in D-scores among the conditions for White participants,  $F(5, 408) = 35.49, p < .01$ , partial  $\eta^2 = .30$ , as well as Asian participants,  $F(5, 408) = 5.84, p < .01$ , partial  $\eta^2 = .07$ . In addition, there was a statistically significant difference in D-scores among participants of different races who viewed the Black White conditions,  $F(3, 408) = 5.79, p < .01$ , partial  $\eta^2 = .04$ . There were also significant differences in D-scores among participants of different racial groups who viewed the Asian Hispanic conditions,  $F(3, 408) = 3.23, p = .02$ , partial  $\eta^2 = .02$ . Refer to Table 2 for statistically significant pairwise comparisons. Overall, participants were found to evaluate White participants most positively while the other racial groups were found to be evaluated more negatively, even among racial minority participants.

### **Hypothesis 1: Differences between Interracial and Same Race Couples**

A one sample t-test determined whether the average of D-scores was different than zero (which would indicate there was no bias in evaluating interracial and same race couples). The average of the two D-scores for the IATs featuring couples was calculated

and used for analysis. D-scores were normally distributed as assessed by Shapiro-Wilk's test,  $p > .05$ . D-scores were found to be significantly different than what was assumed from the null hypothesis,  $t(446) = -9.81, p < .01, d = .46$ . Overall participants were found to have a negative bias toward interracial couples and a positive bias toward same race relationships ( $M = -.13, SD = .28$ ).

### **Hypothesis 2: Differences among Couples with Different Racial Compositions**

A one-way ANOVA with planned contrasts was used to evaluate whether there was a difference in D-scores among conditions featuring different racial groups. As this hypothesis focuses on the racial composition of each interracial couple evaluated, groups were collapsed across gender. There was a difference among groups,  $F(5, 441) = 2.39, p = .04, \text{partial } \eta^2 = .03$ . Contrasts revealed that there was a difference between Black White couples and all other couples, with Black-White couples evaluated more negatively relative to their same race counterparts than other interracial couples,  $t(441) = 2.33, p = .02, r_{\text{contrast}} = .11$ . There was no difference in how Asian-White couples were perceived in comparison to other couples,  $t(441) = .49, p = .63, r_{\text{contrast}} = .02$ . Refer to Figure 2 for descriptive statistics.

### **Hypothesis 3: Differences among Couples with Different Racial and Gender Compositions**

The next analysis examined whether D-scores were different among interracial couples with different racial and gender compositions. D-scores were normally distributed for each group, as assessed by Shapiro-Wilk test,  $p > .05$ ; however, there was heterogeneity of variances, as assessed by Levene's test of homogeneity of variances,  $p = .03$ , therefore a one-way Welch ANOVA with planned contrasts was used for this

analysis. D-scores were not found to be statistically different among the groups, *Welch's*  $F(11, 167.35) = 1.54, p = .12, \omega^2 = .01$ . Contrasts were conducted to determine if specific couples (i.e., White woman-Black man couples, Asian woman-White man couples, Hispanic woman-White man couples) were evaluated differently in comparison to other couples and whether gender played a role how couples were evaluated. There was a significant difference between how White woman-Black man couples were evaluated in comparison with other couples,  $t(55.05) = 2.11, p = .04, r_{\text{contrast}} = .27$ , with White woman-Black man couples viewed more negatively than other interracial couples]. Gender also seemed to be a factor in Black-Hispanic couples as there was a statistically significant difference between Black woman-Hispanic man couples and Black man-Hispanic woman couples,  $t(60.63) = 2.36, p = .02, r_{\text{contrast}} = .29$ . Participants who viewed Black woman-Hispanic man couples had no bias toward these couples, whereas participants who evaluated Hispanic women-Black man couples had a negative bias toward these couples.. Refer to Figure 3 for descriptive statistics.

#### **Hypothesis 4 and 5: Comparing Implicit and Explicit Attitudes**

Pearson correlations were used in order to examine whether those with positive explicit racial attitudes implicitly evaluated interracial couples differently than those with more negative explicit racial attitudes. There was a negative correlation between D-scores and the CoBRAs scale, though it was not found to be statistically significant,  $r(445) = -.05, p = .28$ . However, there was a statistically significant small negative correlation between D-scores and the Interracial Dating Attitudes Scale,  $r(445) = -.11, p = .02$  such that more negative explicit attitudes toward interracial couples were associated with more negative implicit attitudes toward interracial couples.

## Exploratory Analyses

Interracial couples were compared with their same race counterparts, meaning that couples were compared with a same race couple featuring one partner's racial group and a same race couple from the other partner's racial group. To test hypotheses, D-scores from each comparison was averaged and used for each analysis. However, in exploratory analyses I was interested in whether interracial couples were evaluated differently depending on which same-race relationship they were compared with. Paired sample *t*-tests were used to examine whether interracial couple were perceived differently relative to which same race relationship they were compared with. White woman-Asian man, White woman-Hispanic man, Black woman-White man, Asian woman-White man, Hispanic woman-White man, Hispanic Woman-Black man couples were all found to have significant differences in how they were compared relative to which same race relationships they were compared with ( $p < .05$ ). Couples featuring White-men (i.e., Black woman-White man, Asian woman-White man, Hispanic woman-White man) White woman-Asian man couples, and White-woman Hispanic-man couples were evaluated more negatively in comparison to same-race White couples than minority same-race couples. Hispanic woman-Black man couples were perceived more negatively in comparison to Hispanic same-race couples than Black same-race couples. Refer to Figure 4 for descriptive statistics.

## **Discussion**

The present study set out to extend previous research on implicit and explicit racial attitudes by focusing on how others perceive interracial relationships. Using an online sample, this study examined how interracial couples of different racial and gender compositions were evaluated in comparison to their same race counterparts using an IAT methodology.

### **Replication Findings**

Although my primary aim focused on interracial couples, my first hypothesis was that I would replicate previous IAT findings that individuals have a preference for their own racial groups (Axt, Ebersole & Nosek, 2014). Several theories of intergroup relations including social identity theory (Tajfel & Turner, 1986), self-categorization theory (Turner et al., 1987), and social dominance theory (Sidanius & Pratto, 1999) posit that people have a strong tendency to favor their own group in terms of their attitudes. These theories argue that as an individual's group membership is a meaningful source of self-respect and esteem, favoring one's own group is a way to protect one's self regard. This is consistent with research findings that indicate individuals with high self-esteem are found to have more in-group bias than do individuals with low self-esteem (Aberson, Healy & Romero, 2000). Although this tendency to preserve one's self esteem predominantly takes the form of favoring one's own group, it can also take the form of derogating other groups (Brewer, 1999). These theories are supported by previous findings that indicate that individuals associate positive characteristics with their in-groups more easily than outgroups as well as associate negative characteristics with

outgroups more easily than in-groups (e.g., Dasgupta, McGhee, Greenwald & Banaji, 2000; Dasgupta & Greenwald, 2001).

My hypothesis that supports in-group favoritism was only partially supported as only White participants were found to have an in-group bias. Overall, all minority participants had a positive bias toward Whites, even relative to their own racial group. Hispanic and Black participants viewed themselves more positively than other minority races but still less favorably than Whites. It is likely that participants perceived Whites more positively due to Whites' high social status in comparison to other racial minorities.

Although my results did not replicate findings from Axt et al., (2014), my findings provide support for studies that have described societal hierarchies. Deeply related to social class and privilege are race and racism (Liu, Hernandez, Mahmood, & Stinson, 2006). Race continues to play a significant role in shaping life experiences and studies have found that racial stratification continues to exist, with Whites considered on top of the hierarchy with the most social advantages, while non-Whites are considered of lower status. Blacks have historically and typically been at the bottom of the hierarchy having the least social advantages (Fang et al., 1998; Song, 2004, Spickard, 1989), although the question of which groups do and do not constitute disadvantaged minority groups is more contested than ever (Sears, Sidanius & Bobo, 2000). Bonilla-Silva (2004) proposed a "collective Black" being on the bottom of the racial hierarchy, which is composed of Blacks, some Asian ethnic groups (i.e. Vietnamese, Filipinos), and dark-skinned Hispanics. System justification theory (Jost, Banaji & Nosek, 2004) suggests that implicit attitudes can be influenced by these hierarchies as it argues that individuals' intergroup attitudes may reflect the tendency to legitimize existing social hierarchies,



even at the expense of personal and group interest. In this study, all participants regarded Whites the most positively and all participants besides Black participants (who evaluated themselves more positively), had the most negative bias toward Blacks, which is consistent with studies that examined the social status of racial groups (e.g., Fang et al., 1998; Hwang, 2013; Miller et al., 2004; Pew Research Center, 2012). Whether attitudes are more reflective of in-group bias or societal hierarchies is questionable as results have been inconsistent, particularly for disadvantaged social groups (Dasgupta, 2004). This inconsistency seems to be reflected in my results as Hispanics and Blacks viewed their own racial groups more favorably than other racial minorities but still less positively than Whites. Regardless, it appears that this study's findings provide evidence for the influence of societal attitudes toward racial groups, particularly reflecting the power and status difference among groups.

### **Hypothesis 1: Comparing Interracial and Same Race Relationships**

In applying theories of intergroup relations to interracial relationships, I hypothesized that interracial couples will be evaluated more negatively than same-race couples. My hypothesis was supported in that participants had a negative bias of about half of a standard deviation (a medium effect size,  $d = .46$ ) toward interracial relationships compared with same-race relationships. One can speculate that the negative bias may be attributable to the lack of perceived similarity between individuals in interracial relationships. Similarity been an influential factor in the perception of compatibility or how others get along (Sunnafrank & Ramirez, 2004; Selfhout, Denissen, Branje & Meeus, 2009). However, racial differences have been shown to serve as a strong basis of assumed dissimilarity (Byrne & Wong, 1962; Frey & Tropp, 2006;

Robbins & Krueger, 2005; Vorauer, Main, & O'Connell, 1998). Individuals tend to assume that members of the same group share attitudes and traits more than people from different groups (Robbins & Krueger, 2005). As interracial couples look dissimilar to one another, participants may have assumed that they are less compatible with one another, perceiving them more negatively than same race relationships.

The negative bias toward interracial couples may also be related to how people perceive interracial interactions. Literature on interracial relations over the past four decades has provided fairly stable evidence that interracial interactions are experienced more negatively than same race interactions (Brown & Hewstone, 2005; Pettigrew & Tropp, 2008; Plant & Butz, 2006; Toosi, Babbitt, Ambady & Sommers, 2012). Both majority and minority group members are found to have higher levels of stress and anxiety in interracial interactions than same race interactions (Blascovich, Mendes, Hunter, Lickel & Kowai-Bell, 2010; Dovidio, 2001; Dovidio, Gaertner, Kawakami, & Hodson, 2002; Pearson et al., 2008; Trawalter, Richeson, & Shelton, 2009). As interracial interactions can be associated with stress and anxiety, it may be a reason why individuals may perceive interracial relationships with a more negative bias than same race relationships.

## **Hypothesis 2: Comparing Interracial Relationships with Different Racial Compositions**

Based on previous research focusing on the acceptance of interracial couples (Passel, Wang & Taylor, 2010), I hypothesized Black and White relationships would be evaluated the most negatively out of all interracial couples, while Asian White couples would be evaluated the most positively out of all interracial couples. Consistent with

previous research, results indicated that participants perceived Black White interracial relationships the most negatively when comparing all of the racial combinations. Because of the history between Blacks and Whites and differences in social status, Black and White racial groups are suggested to be the most polarized races in the US. Black-White couples have reported their unions receive more negative and condescending reactions in public from both Whites and racial minorities (Yancey, 2004; Lewis, 2014) which is consistent with participants in this study evaluating these couples the most negatively. Past studies have noted that Black and White couples can be seen as a threat to white purity and supremacy and both Black men and women involved in interracial couples reported being criticized from other members of their racial group as they can be seen as a traitor to their own racial group (Dalmage, 2012; Garcia, Riggio, Palavinelu & Culpepper, 2012; Field, Kimuna & Straus, 2013; Foeman & Nance, 1999). However contrary to my hypothesis, Asian White couples were not found to be the most positively evaluated interracial couple, rather Black Hispanic couples were evaluated the least negatively out of all interracial couples. One can speculate that these findings can also be related to social status of racial groups as Blacks and Hispanics are perceived to be of closer social status than other racial groups (Fang et al., 1998).

### **Hypothesis 3: Comparing Interracial Relationships with Different Racial and Gender Compositions**

As gender is a factor in the perception of interracial couples, I hypothesized that White woman-Black man couples would be the most negatively evaluated out of all the interracial couples. Although White woman- Black man couples were viewed more negatively than most other couples, participants evaluated Black woman-Asian man

couples just as negatively which was surprising. It is possible that the reason for this may be due to theories of intersectionality, which influence stereotypes about Black women and Asian men.

Intersectionality refers to the notion that individuals fall into multiple social categories simultaneously (Cole, 2009; Babbitt, 2011; McCall, 2005; Settles, 2006; Warner & Shields, 2013). The theory of intersectional invisibility proposes that non-prototypical members of overarching groups often go unnoticed due to their status in relation to their social groups (Purdie-Vaughns & Eibach, 2008). As these non-prototypical members are overlooked, they take on the traits that are assumed of their social category.

Intersectional invisibility has shown to affect social perception, particularly for Black women and Asian men. The category 'Black' is typically associated with masculine traits (Bem, 1981; Devine & Elliot, 1995; Galinsky et al., 2013; Johnson et al., 2012; Schug, Alt & Klauer, 2015) and both Black men and women are found to be perceived as more masculine than their White counterparts (Goff, Thomas & Jackson, 2008). Furthermore, other studies show that Black women are often viewed as unfeminine, aggressive, and physically unattractive (Baker, 2005; Weitz & Gordon, 1993). In a similar manner, the 'Asian' category is associated with feminine traits (Galinsky et al., 2013; Johnson et al., 2012; Schug et al., 2015) and Asian men are viewed as feminine, subordinate, and "not sexy" (Lee & Joo, 2005; Mok, 1998b; Shek, 2006; Wong et al., 2012; Yuen et al., 2005; Zhang, 2010). These perceptions have had implications in dating preferences, as studies have found Asian men and Black women are the less desirable than their racial counterparts (Feliciano, Robnett, Komaie, 2009;

Fisman, Iyengar, Kamenica & Simonson, 2008; Galinsky et al., 2013). As this is the case, it is possible that participants who evaluated Black woman Asian man couples may have perceived them as individuals who are less attractive or compatible, which may have led these couples to be more negatively evaluated.

#### **Hypothesis 4 and 5: Comparing Explicit Attitudes with Implicit Attitudes**

This study also examined how implicit attitudes toward interracial couples related to explicit measures. I hypothesized that participants with more explicit negative racial attitudes would evaluate interracial couples more negatively compared with participants with more explicit positive racial attitudes. My hypothesis was only partially supported as explicit interracial attitudes, as measured by the Interracial Dating Attitudes Scale, was found to correlate with implicit attitudes toward interracial relationships at a statistically significant level, whereas general racial attitudes, as measured by the CoBRAs, was found to be nonsignificant. Participants with more negative explicit attitudes toward interracial couples were more negatively biased toward interracial couples on the IAT. A meta-analysis revealed that explicit and implicit attitudes can vary due to a number of factors including social desirability, lack of introspective awareness, degree of spontaneity in self-reports and conceptual correspondence between measures (Hofmann, Gawronski, Gschwender, Le & Schmitt, 2005). Though it is unclear which reason pertains to why explicit racial attitudes are unrelated to implicit interracial attitudes, one can speculate that it may be due to varying degrees of introspective awareness. Along with measuring an awareness of racial privilege and institutional discrimination, the CoBRAs evaluates the degree of acknowledging racial differences rather than being colorblind (Neville et al., 2000). Although one's explicit attitude may reflect the efforts

not to acknowledge race or racial issues, it may not be consistent with implicit attitudes, which can reflect society's attitudes on different racial groups (Jost et al., 2004) resulting in a discrepancy between the two attitudes.

### **Exploratory Analyses: Comparing Interracial Couples to Different Same Race Relationships**

In my exploratory analysis, I was interested whether interracial relationships were evaluated differently relative to which same race relationship they were compared with. Overall besides for White woman-Black man couples, interracial couples with a White partner were evaluated more negatively when they were compared with White same-race couples than when interracial couples were compared with a minority same-race couple. Although findings from this study indicate that overall interracial couples are more negatively evaluated than same race couples, this finding suggests there are also differences in how same race couples are perceived. It appears that consistent with theories related with social status, same-race White couples were evaluated the most positively out of all couples (Fang et al., 1998; Liu et al., 2006; Sidanius & Pratto, 1999).

### **Limitations and Strengths**

Even though this study provided a better understanding in how interracial relationships are perceived relative to same race relationships, it is not without limitations. This study focused on the race and gender composition of different couples, however, race and gender are only two aspects of culture. Culture is a social phenomenon that has many different levels, some which are embedded into others (Chao & Moon, 2005). When making judgements about a person, individuals draw on interrelated aspects of culture that can invoke different impressions, expectations and affect subsequent

behavior. Though this study attempted to isolate certain aspects of culture, it is unclear if participants made judgements based on those factors specifically, rather than other factors that could be influential in their judgment. For example, race is often linked to ethnicity, socioeconomic status and living area. Also poses used in the photographs of couples were based on American traditions and might not be considered appropriate or hold the same meaning across cultures. It is likely that participants made judgments about couples beyond their race and gender composition. Second, although photos used in this study were rated on whether couples were representative of their racial categories prior to their use in the study, couples were not rated on level of attractiveness or compatibility. As attractiveness and compatibility were not equated prior to being evaluated in IATs, it is possible that couples were evaluated more positively due being seen as more attractive or compatible than other couples more so than whether they were an interracial or same race relationship. Third, it is worth noting that within each racial group compared in this study, there are wide range of variation among its members. Though models featured in the photographs evaluated during the IATs were rated as representative of their perspective racial group, results are limited to these stereotypical examples. For instance, participants only evaluated Southeast Asians during the IATs. As there is variation within each racial group, findings may not generalize across all members of these broad racial groups. Also, this study was underpowered for our replication analysis. The sample for this study was mostly White, so there were few racial minorities. As participant race was a factor in our replication, having few minorities could have resulted in findings being due to Type I error.

Despite the limitations, this study had several strengths. This study examined a variety of interracial couples other than Black and White relationships. Although typically studies of interracial relationships tend to focus on Black-White couples, researchers expect that Hispanics and Asians are more likely to be involved in interracial relationships in the future (Qian & Lichter, 2011). Including these racial groups allowed for a better understanding of different interracial couples, rather than generalizing results from a subset. This experiment also had a fairly diverse sample. The sample ranged widely in age, region of the US represented, as well as education. Although this experiment would have benefited with more racially diverse participants, this sample was nearly consistent with the US Census data in terms of racial groups (U.S. Census Bureau, 2016). Furthermore, though Skinner and Hudac's (2016) study investigated whether interracial couples were associated with humans or non-humans, this current study was more consistent with past IAT studies that have used positive and negative categories (i.e., pleasant vs. unpleasant) to understand if people have a positive or negative association toward a presented stimulus (Greenwald et al. 1998).

## **Conclusion**

Over the years there has been an increase in the number of interracial dating and married couples. Although interracial relationships are more widely accepted than in the past few decades, these couples remain a stigmatized group. Through the measurement of implicit attitudes using the IAT, this study found overall interracial couples were perceived more negatively than same race relationships; however, there were differences in how these different interracial couples were perceived which reflected societal views toward different racial groups.



Table 1

*Participant Characteristics*

| Characteristic                      | N   | %     |
|-------------------------------------|-----|-------|
| Age                                 |     |       |
| 18-19                               | 7   | 1.3%  |
| 20-29                               | 151 | 28.8% |
| 30-39                               | 181 | 34.5% |
| 40-49                               | 81  | 15.5% |
| 50-59                               | 69  | 13.2% |
| 60-69                               | 29  | 5.5%  |
| 70+                                 | 4   | 0.8%  |
| Gender                              |     |       |
| Men                                 | 198 | 37.9% |
| Women                               | 324 | 61.8% |
| Transgender                         | 1   | 0.2%  |
| Race                                |     |       |
| White                               | 397 | 75.8% |
| Black or African American           | 39  | 7.4%  |
| American Indian or Alaska Native    | 6   | 1.1%  |
| Asian                               | 36  | 6.9%  |
| Native Hawaiian or Pacific Islander | 1   | .2%   |
| Hispanic or Latino                  | 34  | 6.5%  |
| Mixed Raced                         | 7   | 1.3%  |
| Education                           |     |       |
| Some High School                    | 1   | 0.2%  |
| High School Graduate                | 43  | 8.2%  |
| Some College                        | 145 | 27.7% |
| Trade/Technical/Vocational Training | 32  | 6.1%  |
| College Graduate                    | 197 | 37.6% |
| Some Postgraduate Work              | 24  | 4.6%  |
| Post Graduate Degree                | 82  | 15.6% |
| Region of the US                    |     |       |
| Midwest                             | 111 | 21.2% |
| Northeast                           | 133 | 25.4% |
| Southeast                           | 135 | 25.8% |
| Southwest                           | 48  | 9.2%  |
| West                                | 97  | 18.5% |

*Note.*  $M_{\text{age}} = 37.48$ ,  $SD = 12.32$

Table 2

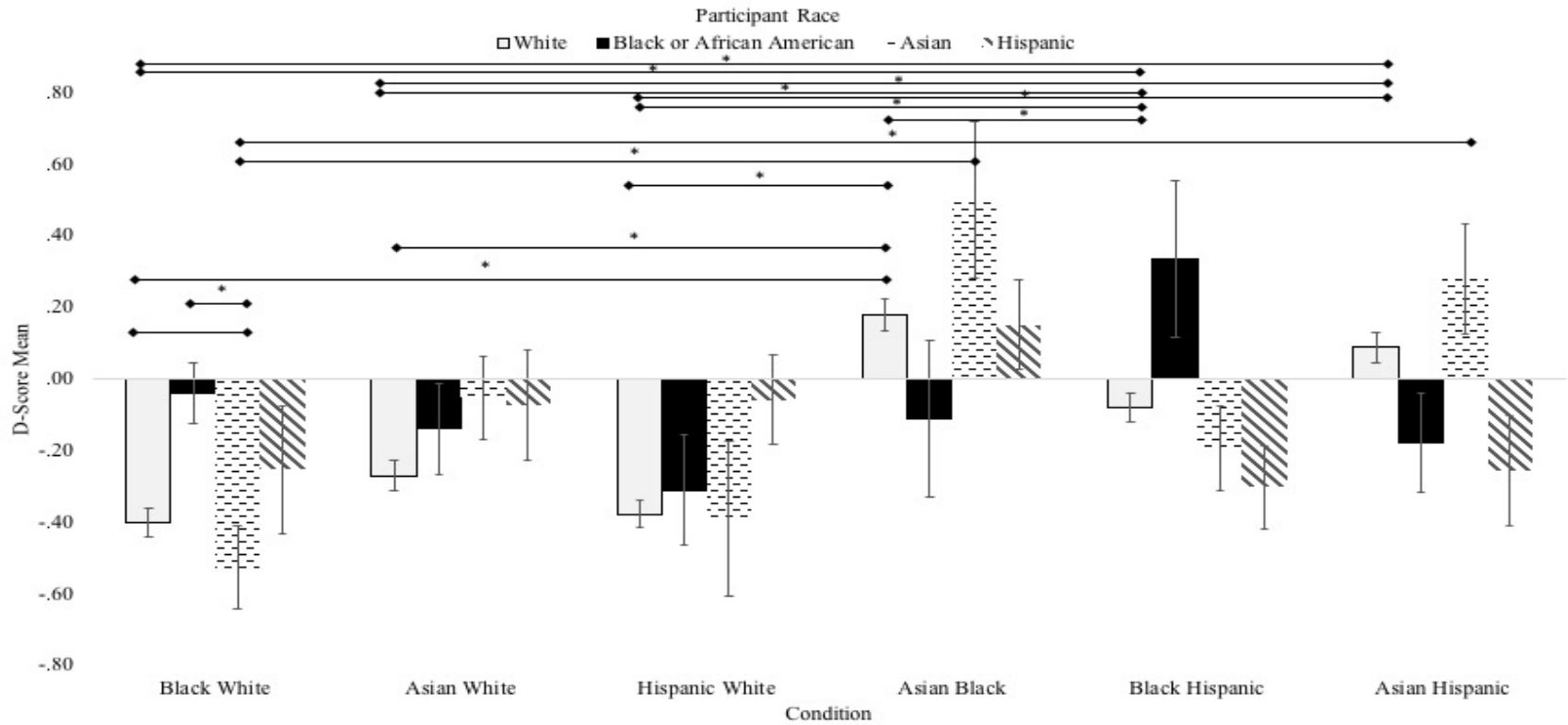
*Descriptive Statistics and Intercorrelations of the Self-report Measures*

|                                    | Descriptive Statistics |           | Intercorrelations |                                    |                |
|------------------------------------|------------------------|-----------|-------------------|------------------------------------|----------------|
|                                    | <i>M</i>               | <i>SD</i> | COBRAs            | Interracial Dating Attitudes Scale | Marlowe Crowne |
| COBRAs                             | 61.26                  | 21.30     | --                | .42**                              | -.004          |
| Interracial Dating Attitudes Scale | 1.51                   | .21       | .42**             | --                                 | .08            |
| Marlowe Crowne                     | 16.28                  | 6.21      | .08               | -.004                              | --             |

*Note.*  $N = 447$ . For intercorrelations, correlation coefficient  $r$  is reported. \*\* Correlation is significant at the 0.01 level (2-tailed)

Figure 1

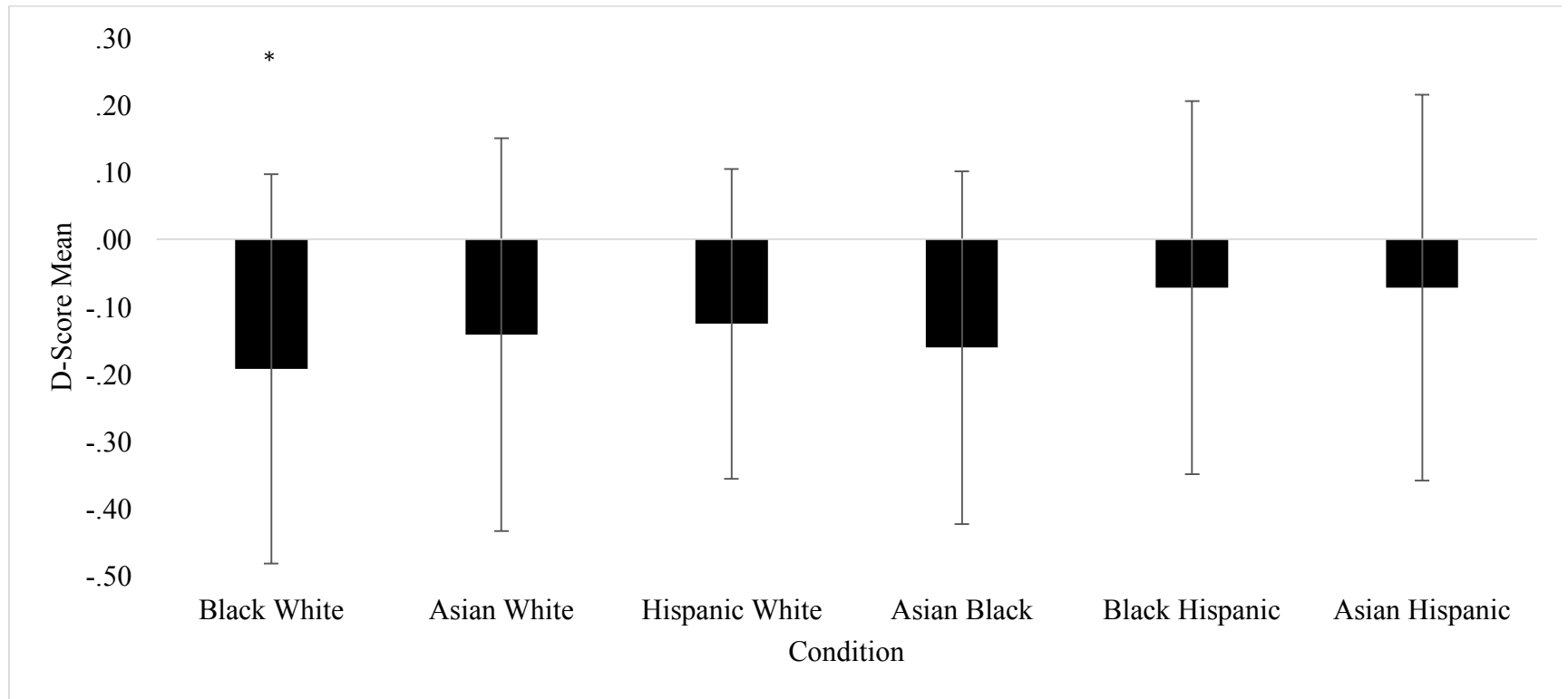
*Implicit Attitudes toward Different Racial Groups as Measured by IATs Featuring Individual Men and Women*



*Note.* A positive D score indicates that participants evaluated the first listed racial category of the condition more positively than the other listed racial category in the condition; whereas a negative D-score indicates the opposite. Asterisks indicate there was a statistically significant difference between groups ( $p < .025$ ) according to post-hoc analyses.  $p$ -values were two-tailed and Bonferroni-adjusted.

Figure 2

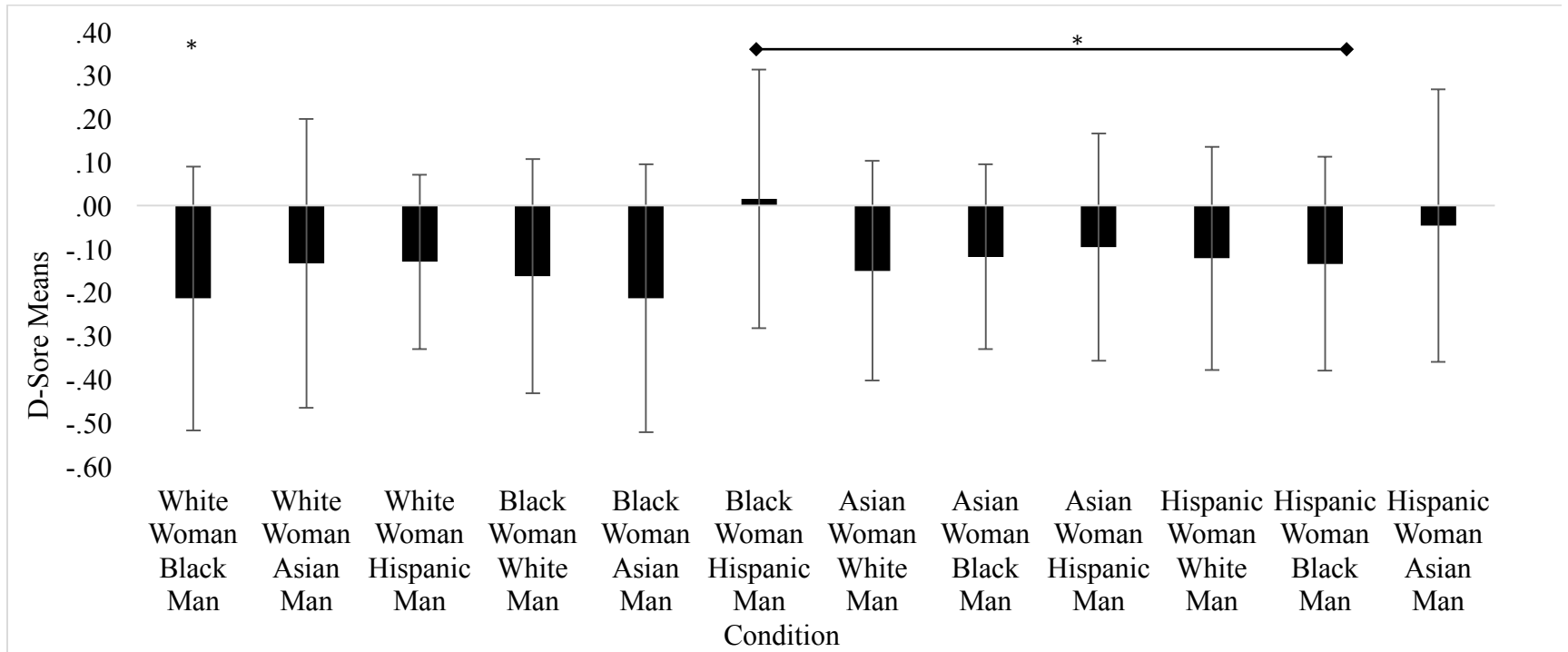
*Implicit Attitudes toward Interracial Couples of Different Racial Compositions in Comparison to Same Race Couples*



*Note.* A positive D score indicates that participants evaluated interracial couples more positively than same race relationships; whereas a negative D-score indicates the opposite. There was a statistically significant difference between Black White conditions and all other conditions ( $p < .05$ ) according to a planned contrast.

Figure 3

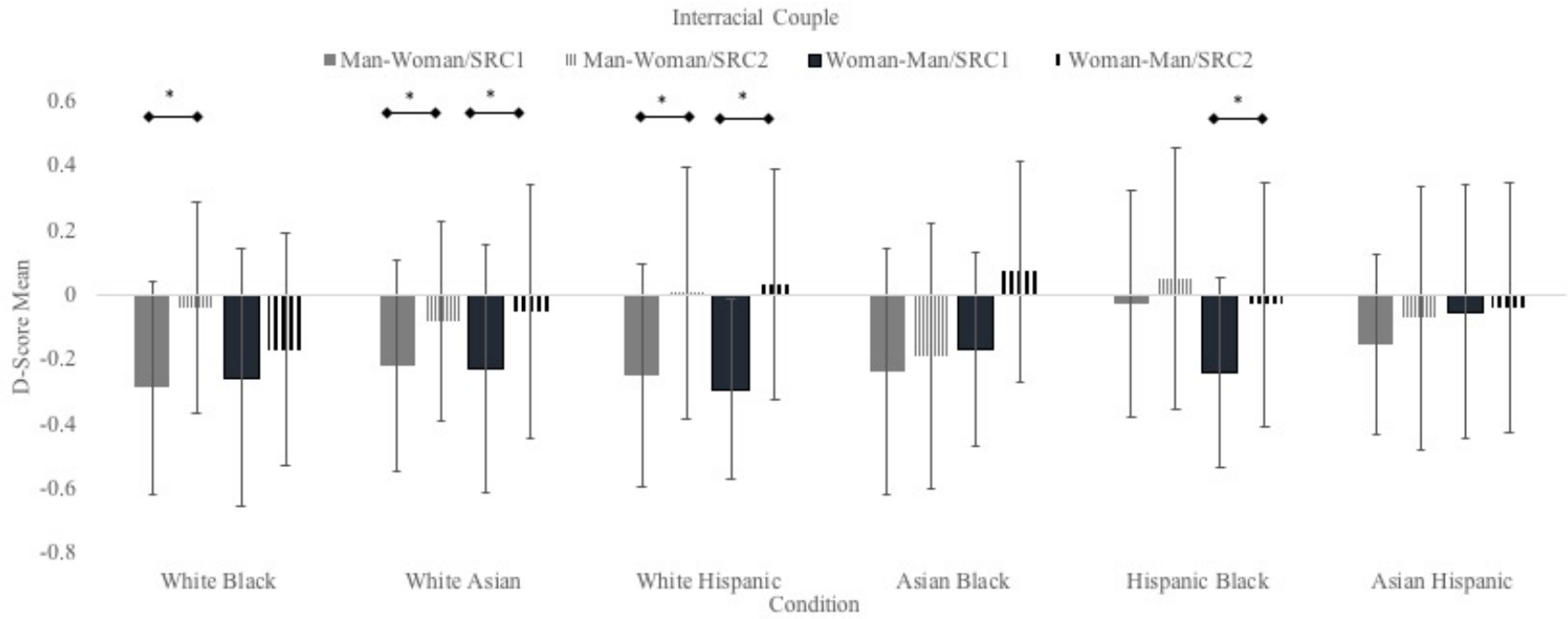
*Implicit Attitudes toward Interracial Couples of Different Racial and Gender Compositions compared to Same Race Couples*



*Note.* A positive D score indicates that participants evaluated interracial couples more positively than same race relationships; whereas a negative D-score indicates the opposite. Asterisks indicate there was a statistically difference between groups ( $p < .05$ ), according to planned contrasts.

Figure 4

*Implicit Attitudes of Interracial Relationships in Comparison to Same Race Couples*



*Note.* SRC=Same Race Couple; A positive D score indicates that participants evaluated interracial couples more positively than same race relationships; whereas a negative D-score indicates the opposite. SRC1 is the same race couple of the first listed racial category of the condition; whereas SRC2 is same race couple of the second listed racial category of the condition. Asterisks indicate there was a statistically difference between groups ( $p < .05$ ).

## Epilogue

Social justice movements dedicated to civil rights have produced changes to American laws and societal policies that have previously led to the discrimination and mistreatment of historically disadvantaged groups. These changes have also elicited concurrent changes in social norms that guide individuals' attitudes and beliefs. Decreased frequency in overt acts of discrimination reflect this changed public opinion toward disadvantaged groups. Although the United States have come a long way from its past, racial inequalities continue to exist, which continued to impact experiences of racial minorities.

Interracial relationships provide insight into the shifting terrain of race relations. The concept of choosing someone of a different race to be a life partner was unthinkable and outlawed a little more than fifty years ago. Though currently more people are involved in interracial relationships, an increase that has grown dramatically over the years. This is telling that an increasing number of people are more open and willing to embrace racial differences and provide hope for the belief that there can be equality among different racial groups. However, even though the prevalence of interracial relationships is on the rise, being in these relationships still brings with it a certain set of experiences. Stigma still exists for these relationships, which has implications for challenges that these relationships face.

Although there are more accepting attitudes toward interracial relationships, there seem to be an inconsistency between espoused global attitudes and preferences related to social distance. While tolerance for interracial unions has clearly increased over time, there is still strong evidence for preferences for same-race relationships and maintaining

some social distance among different racial groups. One can argue that people are entitled to their own preferences involving their own actions (including their own dating preferences); however, these preferences can reflect what is considered acceptable for themselves, but also for those closest to them. So, while people may support the principle of decreased social distance for others, there can be a preference to keep distance not only for themselves, but also those who they are closest to in their social networks. This inconsistency reflects what is known as aversive racism, or an ambivalence between feelings of egalitarianism and subtle feelings of fear, anxiety, and discomfort towards people of other races. As opposed to overt racism which may involve direct discrimination, aversive racism involves more subtle forms of discrimination that are much more common in the present day.

My research has focused on two forms of aversive racism for interracial couples. The first study focuses on perceived discrimination which involves experiences of mistreatment and prejudice that interracial couple commonly face. Perceived discrimination can come from the general public through stares and comments; however, it can also come in the form of opposition from within one's own social networks. Interracial couples report that opposition from family and friends can have negative implications on the relationship. The second study focuses on the implicit biases toward interracial relationships which seemed to be deeply rooted in history and reinforced by current societal ideologies. Although these implicit biases may not have as direct of an impact on interracial relationships as perceived discrimination does, it provides a perspective of why others may prefer to maintain social distance. However, these biases



may be related to societal preferences rather than personal hostility toward different racial groups.

Although racial relations in America are in a much better place than decades ago, we are far from racial equality. Particularly at this time in our nation's history, race relations appear to be regressing. The study of interracial relationships provides complementary insights into interracial interactions as well as race relations more generally. It is apparent that the influence of racial hierarchies can negatively impact interracial relationships, which may be a reason for their high rates of dissolution. As interracial relationships continue to increase in frequency, there should be more research focusing on improving interracial relationship functioning. Through understanding the challenges of interracial relationships, we cannot only improve interracial relationships but we may also learn how to cope actively with these racial inequalities.

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