

THE IMPACT OF INTERRACIAL ROMANTIC COUPLE EXPOSURE ON
CONCEPTIONS OF RACE

By

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ABSTRACT OF THE THESIS

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Despite the rise of interracial dating and marriage in the United States, little to no research has considered the role that exposure to interracial couples may have on people's beliefs about race. The present experimental study examined whether exposure to Black/White interracial couples, as compared to same-race couples, influences White men and women's conceptions of race (i.e. racial essentialism, Black/White intergroup attitudes and perceived similarity), and whether the perceived racial essentialism of the couple could, in part, explain shifts in beliefs about race. Heterosexual, White men and women ($N = 324$) who were exposed to couples with varying racial compositions did not show changes in their own racial attitudes. However, the White members of Black/White interracial couples were perceived as lower in racial essentialism than members of same-race couples. Lower perceived racial essentialism in turn served a mediating role between exposure to couples and participants' self-reported race-related attitudes. This work suggests that members of interracial couples are perceived as having less essentialist views of race than same-race couples, but more work is still needed to better understand how these perceived attitudinal differences may influence the attitudes of White perceivers exposed to interracial couples.

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The Impact of Interracial Romantic Couple Exposure on Conceptions of Race

In 1967 in the case of *Loving v. Virginia*, the United States Supreme Court voted unanimously that anti-miscegenation laws, which forbade interracial marriage, were unconstitutional, effectively overturning state laws banning interracial marriage. It has been over 50 years since this landmark civil rights case, and in that time American approval of Black/White interracial marriage has risen from 20% to 87% in 2013 (Newport, 2013). Interracial couples (e.g., Prince Harry and Meghan Markle, the Duke and Duchess of Sussex; Ellen Pompeo and Chris Ivey; Eva Mendes and Ryan Gosling) are becoming more prominent in society than ever before. For example, there has been an increase in the number of interracial couples represented in primetime television shows (e.g., *Brooklyn 99*, *Grey's Anatomy*, *Parks and Recreation*), with main characters frequently engaging in interracial romantic relationships (Maillard, 2017). This growing visibility is not surprising, given that the number of interracial marriages has spiked, such that in 2015, one in six newlyweds (17%) in the United States were married to someone of a different race (Bialik, 2017).

Given the rising numbers of racially mixed couples and the shifting climate about such marriages, it is important to understand the impact of the growing visibility of interracial couples on society's conceptions of race. Most research on interracial couples to date has focused on attitudes toward interracial couples themselves (Herman & Campbell, 2012; Lewandowski & Jackson, 2001; Skinner & Hudac, 2017; Skinner & Rae, 2018). The present work, in contrast, examines the impact of exposure to interracial couples on attitudes about race itself. Thus, the present work fills an important gap in the literature by testing whether exposure to successful (i.e., married) Black/White interracial

couples influences perceptions of similarity between Black and White people, racial essentialist beliefs, and intergroup attitudes.

Intergroup Contact Theories

Allport's (1954) intergroup contact theory proposes that contact between different social groups can reduce intergroup prejudice. Indeed, subsequent empirical research supports this proposition. For example, Pettigrew and Tropp (2006) conducted a meta-analysis of the intergroup contact literature and found that direct, face-to-face contact was more likely to lead to prejudice reduction, particularly when contact occurred with support from authorities, and between people equal in status, sharing common goals, and engaging in cooperation. Intergroup contact effects have been replicated through the world, examining prejudice reduction among both minority and majority group members on wide-ranging attitudes from racism to mental illness attitudes (Couture & Penn, 2003; Dixon et al., 2010; Gaither & Sommers, 2013; González & Brown, 2006; Herek & Capitanio, 1996; Pettigrew & Tropp, 2006; Tropp & Pettigrew, 2005; Voci & Hewstone, 2003; Wagner, van Dick, Pettigrew, & Christ, 2003).

In addition, research suggests that contact can be indirect and still yield reductions in intergroup prejudice (Paolini, Hewstone, Cairns, & Voci, 2004; Turner, Hewstone, Voci, & Vonofakou, 2008; Vezzali, Hewstone, Capozza, Giovannini, & Wölfer, 2014). Indirect contact is a general term used to describe any contact that occurs through means other than direct interaction with another individual, and includes extended contact, vicarious contact, and imagined contact (Dovidio, Eller, & Hewstone, 2011). Extended contact, which involves simply knowing that an ingroup member has a close, positive relationship with an outgroup member, has consistently been found to reduce intergroup

bias (Turner et al., 2008; Wright, Aron, McLaughlin-Volpe, & Ropp, 1997; Zhou, Page-Gould, Aron, Moyer, & Hewstone, 2018). Vicarious contact, in which individuals observe an interaction between an ingroup individual and an outgroup individual, has also been found to influence one's outgroup attitudes (Mazziotta, Mummendey, & Wright, 2011). Imagined contact, which involves a "mental simulation" of positive contact between oneself and an outgroup member, has been found to increase positive outgroup attitudes and reduce intergroup anxiety (Crisp & Turner, 2009; Turner, Crisp, & Lambert, 2007). These indirect contact findings are important because some individuals live in areas that make direct contact with certain outgroups difficult, if not impossible (Dovidio et al., 2011).

Several explanations have been forwarded on the effectiveness of extended contact, including the assertion that outgroup and ingroup members serve as role models that shift intergroup norms (Vezzali et al., 2014; Zhou et al., 2018). In fact, Turner and colleagues (2013) found that improvements in outgroup attitudes following extended contact among Catholics and Protestants in Northern Ireland were mediated by perceptions that ingroup members had positive outgroup attitudes and that outgroup members had positive attitudes toward the ingroup. Gómez, Tropp, and Fernández (2011) similarly found that among Spaniards and immigrants in Spain, ingroup and outgroup norms mediated the relationship between extended contact and both intergroup attitudes and positive intergroup expectancies. This work thus suggests individuals may look to ingroup individuals who have positive relationships with outgroup members as role models for how ingroup members should feel toward and interact with outgroup

individuals (Gómez, Tropp, & Fernández, 2011; Turner et al., 2008; Turner, Tam, Hewstone, Kenworthy, & Cairns, 2013; Vezzali et al., 2014).

Social learning theory (Bandura, 1977) proposes that people learn via observation of other people's behaviors and through their own experiences with rewards and punishments. Bandura (1977) posited that people look not just to behavior, but also to the affective responses of others to guide their own behavioral and affective responses. Social learning theory also argues that four subprocesses are important for modeled behaviors (and affect) to influence perceivers. Specifically, people must attend to behaviors, retain information about those behaviors and their consequences for relevant situations in which they could engage in the same behaviors, have the ability to perform the behaviors themselves, and have sufficient motivation or incentive to engage in the behaviors (Bandura, 1977). Social learning theory would thus suggest that exposure to Black/White interracial couples could shift racial attitudes if perceivers attend to and remember the racial composition and success of the couple, and if perceivers are sufficiently motivated to alter their own behaviors and affective responses toward race. While social learning theory focuses on behavioral changes more so than attitudinal changes, social learning theory and the extended contact hypothesis collectively may suggest that being exposed to an in-group member engaging positively with an out-group individual could shift the behaviors and intergroup attitudes of perceivers (Bandura, 1977; Vezzali et al., 2014).

While there is ample work on the positive effects of extended cross-group friendships on intergroup attitudes, little work to date has examined extended contact with intergroup romantic partners (Paterson, Turner, & Conner, 2015). The present study

will break new ground by examining exposure to interracial romantic relationships and intergroup attitudes that pertain to conceptualizations of social categories themselves. Given the literature on extended contact, I hypothesized that White participants exposed to Black/White interracial couples would have more positive attitudes toward Black people, and generally view Black/White racial categories as less distinct compared to those who were exposed to same-race couples. My work also departed some from these studies because the experiment utilized a brief exposure paradigm from prior research on biracial exposure (Sanchez, Young, & Pauker, 2015; Young, Sanchez, & Wilton, 2013).

Brief Exposure Paradigm and Essentialism

While the research on extended contact provides evidence that extended contact can be effective at reducing outgroup prejudice (e.g., Vezzali, Hewstone, Capozza, Giovannini, & Wölfer, 2014), none of this work, to my knowledge, has explored the effects of extended contact on other conceptions of race, such as racial essentialism and perceived intergroup similarity, which may be at the root of intergroup attitude change. Racial essentialism is the belief that racial groups have an underlying essence that is natural/biological and stable, which makes them easily distinguishable from one another (Williams & Eberhardt, 2008).

Although racial essentialism and intergroup similarity are related constructs, they are distinct from one another. Racial essentialism is a set of beliefs about the meaning of race and racial categories. Though racial essentialism often corresponds with the idea that racial group members are inherently similar to one another, racial essentialism also implicates biology and natural essences as a source of that similarity. Intergroup similarity is operationalized in the present work as the perceived homogeneity of the

attitudes, beliefs, and interests of people across racial divides, which we expect to be related to racial essentialism but does not specify a theory about race or racial categories. Researchers have found that individuals high in racial essentialism are more likely to endorse racial stereotypes (Bastian & Haslam, 2006; Keller, 2005), and are less interested in and less motivated to engage in interracial interactions than those low in racial essentialism (Williams & Eberhardt, 2008). Additionally, individuals who endorse racial essentialism tend to hold prejudicial views of commonly stigmatized racial groups (e.g., Black, Hispanic; Prentice & Miller, 2007), yet few studies have explored methods to reduce essentialism.

Some recent evidence suggests that exposure to diverse populations may undermine racial essentialist beliefs. For example, a recent longitudinal study found that White individuals who moved to a diverse environment with a large multiracial population (Hawai'i) exhibited lower levels of racial essentialism over time, which was, in turn, associated with reduced modern racism, and social dominance orientation over time (Pauker, Carpinella, Meyers, Young, & Sanchez, 2017). Exposure to biracial people in experimental work utilizing a brief exposure paradigm has also been found to reduce racial essentialism (Sanchez et al., 2015; Young et al., 2013). In these studies, participants were simply exposed to a photograph and a small amount of information about a target, and then asked to evaluate the target on a series of measures (Sanchez et al., 2015; Young et al., 2013). Utilizing this method, Sanchez, Young, and Pauker (2015) found that White perceivers asked to form impressions of a racially ambiguous Black/White biracial person indicated lower racial essentialism than White perceivers asked to form impressions of a Black monoracial person. In addition, this racial

essentialism reduction was due, in part, to perceptions that the ambiguous target was lower in racial essentialism than the monoracial target (Sanchez et al., 2015). The perceptions of the target's racial essentialism (hereafter meta-essentialism) thus partially mediated the relationship between the target racial identity and participants' self-reported racial essentialist attitudes (Sanchez et al., 2015). Similarly, Young and colleagues (2013) found that White individuals experienced decreases in their racial essentialist beliefs after being briefly exposed to a racially ambiguous individual, only when that target identified as biracial. This research suggests that it is possible to shift racial essentialist beliefs in a brief exposure paradigm.

Biracial/multiracial individuals and interracial couples may both be perceived as challenging essentialist beliefs about race. Biracial/multiracial individuals challenge perceptions that racial groups are distinct from one another as they are often racially ambiguous in appearance, are able to identify with multiple racial categories, and are the byproduct of intimate cross-racial relationships. Similarly, individuals in interracial relationships are breaking norms about race-relations by forming intimate cross-racial bonds. Through assumptions of homophily (i.e., people gravitate towards those who are similar), this choice challenges the implicit assumptions about race categories (i.e., that White individuals are inherently different from Black individuals). As such, happy, married Black/White interracial couples may demonstrate that forming close ties between Black and White individuals is natural and normative.

In the present study, I proposed that exposure to Black/White interracial couples would reduce racial essentialism just as exposure to biracial individuals led to racial essentialism reduction in past work because interracial couples also challenge racial

distinctiveness beliefs. I also proposed that the meta-essentialism, or the perceived racial essentialist beliefs of the gender ingroup member of the couple, would help to explain why those exposed to interracial couples would indicate lower levels of racial essentialism and more positive intergroup attitudes, as has been found in past work involving exposure to racially ambiguous targets (Sanchez et al., 2015).

In addition, the aforementioned research on biracial exposure demonstrated that racial essentialism reduction was partly driven by a social tuning process, in which an individual “tunes” their social beliefs to match the social beliefs of others (Lun, Sinclair, Whitchurch, & Glenn, 2007; Sinclair, Huntsinger, Skorinko, & Hardin, 2005). Social tuning is especially likely to occur when people are unsure of their beliefs (as is likely the case in understanding the concept of race) and when people have great affinity for the person modeling the attitude or belief. In studies from Sanchez and colleagues (2015), participants assumed the racially ambiguous person would have low levels of racial essentialism (meta-essentialism), and this accounted, in part, for the reduction in their own racial essentialist beliefs. Both the social tuning findings and the extended contact literature would suggest that individuals exposed to an ingroup member in an intergroup relationship would “tune” to the ingroup member’s perceived views or rely on the perceived ingroup norms as displayed by the ingroup member to inform their own attitudes (Lun et al., 2007; Zhou et al., 2018).

Why would perceivers assume that interracial daters were less essentialist in their racial thinking? Past work has found that interracial daters express beliefs that race is a social construct (Bonam & Shih, 2009). Given that a social constructivist view of race is antithetical to essentialist beliefs about race, I posited that individuals in interracial

relationships would be likely to have low levels of racial essentialism and other positive interracial attitudes. I therefore proposed in the present work that White perceivers would perceive individuals in interracial relationships to be low in essentialism and “tune” their race-related beliefs to the perceived racial essentialism (meta-essentialism) of the ingroup member of the interracial couple.

In addition, observing an ingroup member involved in an interracial romantic relationship is likely to influence White perceivers’ conceptions of race. Romantic relationships are distinctly different from other types of close relationships (e.g., familial, friendships) mainly due to the high levels of closeness, intimacy, and interdependence that characterize romantic relationships (Graf, Paolini, & Rubin, 2018; Hendrick, Hendrick, & Adler, 1988; Reis & Rusbult, 2004). In a study contrasting behavioral expectations of romantic relationships and friendships, individuals in romantic relationships indicated expecting higher levels of emotional closeness and companionship from their romantic relationships than from their same-sex and other-sex friendships, despite the length of the romantic relationships being significantly shorter than the friendships (Fuhrman, Flannagan, & Matamoros, 2009). As romantic relationships and other close relationships are perceived as distinctly different in terms of closeness and intimacy, I propose that exposure to a successful (i.e. married) interracial romantic couple would be particularly effective at influencing White perceivers’ conceptions of race.

Pilot Data

A pilot study was conducted in anticipation of this master’s thesis to test whether self-reported quality of contact with interracial couples was related to racial essentialism and modern racism. The pilot data suggested that among White undergraduate students (*n*

= 127), the more positive contact participants had with people of different racial groups (broadly construed, e.g. “In general, how positive or negative are your interactions with people of a different race?”) and with interracial couples, the lower their self-reported levels of modern racism and racial essentialism, $r_s(123) < -.215$, $p_s < .016$. This pilot data provided preliminary support that being exposed to interracial couples could be effective at reducing racial essentialist beliefs and negative outgroup attitudes.

Present Study

The present research examined how exposure to interracial couples influences people’s conceptions of race and interracial attitudes. Specifically, this study tested whether White perceivers would show less endorsement of racial essentialism, more favorable intergroup attitudes, and greater perceptions of Black/White intergroup similarity when exposed to Black/White interracial couples compared to White perceivers exposed to Black/Black or White/White intraracial couples. In addition, we explored whether meta-perceptions of lower racial essentialist beliefs held by a member of the couple (of their same gender) drove these reductions. Specifically, I tested the following hypotheses:

- 1) White perceivers would indicate lower levels of racial essentialism and more positive intergroup attitudes when exposed to Black/White interracial couples than when exposed to Black/Black or White/White intraracial couples.
- 2) White perceivers would indicate greater perceived similarity between Black and White people when exposed to Black/White interracial couples than when exposed to White/White or Black/Black intraracial couples.

- 3) White perceivers would indicate that they perceived the gender ingroup member in the couple as less likely to endorse racial essentialist beliefs in the interracial condition than in the intraracial conditions. These meta-essentialism perceptions would mediate the Black/White interracial exposure effect on racial essentialism and intergroup attitudes.

Method

Participants

White men and women residing in the U.S. ($N = 360$) were ostensibly recruited for a study called “Website Evaluations and Attitude Pilot,” in exchange for \$0.50 on Amazon Mechanical Turk. A screening question asked participants to indicate their racial identity among other filler questions, and only those who indicated they are White and identify as either a man or woman were invited to participate in the study. Participants completed two open response questions gauging their perceptions of the purpose of the study. While some participants indicated believing parts of the study were about race, no participants indicated believing the two parts of the study were linked. After removing participants who failed the second manipulation check ($n = 17$) and those with suspicious answers to open response questions ($n = 19$; TurkPrime, 2018), the final sample included 324 heterosexual, White men and women (61.4% female, $M_{age} = 40.34$, $SD_{age} = 13.08$, age range = 18-84). Sample size for the present study was determined by an *a priori* power analysis using G*Power, which revealed a need for $N=301$ participants to achieve sufficient power (power = .8) to find a small to medium effect size ($f = .18$) using analysis of covariance (ANCOVA; Faul, Erdfelder, Buchner, & Lang, 2009).

Given recent concerns surrounding the existence of “bots” on MTurk (TurkPrime, 2018) and identity restrictions in the sample, I recruited more participants than power analyses suggested would be necessary to account for both the need for sufficient power and the likelihood of participant exclusions. Specifically, I determined the data collection stop point at 360, i.e., recruiting and paying 360 MTurk workers for their participation in the study.

Procedure

Participants were ostensibly recruited to participate in a single study with two parts, one part supposedly focused on impressions of dating websites and relationships, and the other on various attitudes. All participants were randomly assigned to one of three conditions in which they were exposed to either an interracial (Black/White) couple ($n = 104$), an ingroup (White/White) intraracial couple ($n = 116$), or an outgroup (Black/Black) intraracial couple ($n = 104$) as part of a dating website “success” story. The study employed a brief exposure paradigm (Sanchez et al., 2015; Young et al., 2013), wherein participants were asked to form impressions of a couple in a photograph under the auspices of a dating website evaluation. The photos of the couples varied based on the condition (interracial, ingroup WW intraracial, outgroup BB intraracial), but the couple descriptions and dating website information were identical across all conditions. The photos of the couples (in Appendix A) were pretested to be matched on attractiveness. Before the launch of the present study, a separate set of White undergraduate students ($n = 64$) rated the photographs of couples based on how attractive they believed the man in the couple to be, and how attractive they believed the woman in the couple to be. I computed average attractiveness scores for all of the couples and examined the scores for

each couple. I identified eight couples (two White/White couples, two Black/Black couples, two Black/White couples including White women, and two Black/White couples including White men) whose average attractiveness scores fell between $M = 4.26$ and $M = 4.80$. I computed average attractiveness scores for each condition by averaging the attractiveness scores of the couples with the same racial and gender composition. I then conducted paired sample t-tests to examine whether attractiveness significantly differed among the couple conditions. This pretest revealed that no significant differences in attractiveness were found for the selected photos, $ts(63) < 1.98, ps > .05$.

After providing informed consent, participants in the present study were notified that they would begin the first part of the study which was focused on dating websites and relationships. Participants read an introduction to the first part of the study which indicated that they would first learn about a dating website and a couple who met on the site, followed by a memory test and survey about their impression of the website and the couple. The memory test served as a manipulation check for the exposure condition to assure that participants were paying attention to the key manipulation.

Participants read about a dating website called PairedUp and saw photos of the website (see Appendix A). After learning about PairedUp, participants were exposed to a couple who ostensibly met on the dating website and got married. Participants then completed the manipulation check, several measures about the couple (i.e., couple perceptions, couple likeability, couple member relatability, similarity to couple members), and some additional filler items about the couple and website. Participants who incorrectly identified the race of the couple members were notified that they answered a question wrong in the memory test. They were able to review the website and

couple information and had a second opportunity to respond to the memory test questions. Any participants who responded incorrectly to the manipulation check twice were excluded from analyses.

After completing the memory task, participants completed a meta-essentialism measure by responding to a racial essentialism scale (Mandalaywala, Amodio, & Rhodes, 2017) as they believe the gender ingroup couple member would. More specifically, in the BW interracial condition and WW intraracial condition, White male perceivers responded as they believed the White man in the couple would, but in the BB intraracial condition, White men responded as they believed the Black man in the couple would respond. The same pattern applies for the White female perceivers, such that in conditions involving at least one White partner, female participants responded according to how they believed the White woman in the couple would respond, and in the BB intraracial condition, female participants responded as they believed the Black woman in the couple would respond to the racial essentialism measure. Participants also responded to an open response question to probe their beliefs about the purpose of the study.

After completing these measures, participants were notified that they completed part one of the study and then needed to complete the second part of the study in order to receive compensation. Participants were told that the second part of the study included a series of attitudinal measures unrelated to the first part of the study. Participants read instructions and then responded to a series of measures appearing in a randomized order (see Appendix B). They completed the Essentialism Scale (Mandalaywala et al., 2017), SDO (Pratto, Sidanius, Stallworth, & Malle, 1994), perceived intergroup similarity (Wilton, Sanchez, & Giamo, 2014), and the Attitudes toward Blacks scale (Brigham,

1993). After completing these measures, participants completed measures of their relationship history, a series of demographic questions (e.g., sexual orientation, income, zip code), and another open response question gauging participants' perception of the purpose of the second part of the study. Participants were debriefed and notified that the two parts of the study were in fact linked.

Measures

Couple perceptions. Participants were asked their impressions of the couple's closeness, happiness, and relationship success. Items include "How close do you think James and Michelle are to one another" which was measured on a scale from 1 (*not at all close*) to 7 (*extremely close*), "How happy do you think James and Michelle are together" on a scale from 1 (*Not at all happy*) to 7 (*Extremely happy*), and "How long do you think James and Michelle will be together/married" on a scale from 1 (*For a short amount of time*) to 7 (*For the rest of their lives*). Higher scores indicate more positive views of the couple's relationship.

Couple member relatability. Participants were asked to indicate how relatable they felt each member of the couple was on a scale from 1 (*Not at all relatable*) to 7 (*Extremely relatable*). Specifically, participants were asked "How relatable is Michelle" and "How relatable is James?" Higher values indicate greater feelings of relatability to each individual member of the couple.

Similarity to couple members. Participants were asked how similar they believed they were to each member of the couple on a scale from 1 (*Not at all similar*) to 7 (*Extremely similar*). Specifically, participants were asked "How similar do you think you

are to Michelle?” and “How similar do you think you are to James?” Higher values indicate greater feelings of similarity to each individual member of the couple.

Couple likeability. Likeability of the couple was measured with four items used in past work (Sanchez, Chaney, Manuel, Wilton, & Remedios, 2017) and were measured on a scale from 1 (*very slightly or not at all*) to 5 (*extremely or a lot*). Sample items include “How much do you think you would like James and Michelle?” and “How well do you think you would get along with James and Michelle?” Responses were averaged such that higher scores on the scale suggest greater couple likeability ($M = 3.45$, $SD = 0.87$, $\alpha = .91$).

Filler items and manipulation check. Five items served as the memory test about both the dating website and the couple. Sample items include “What is the name of the dating website” and “Where did [the couple] meet?” Additionally, two items about the racial composition of the couple were included as a manipulation check to ensure participants were paying attention to the condition. Another three items gauging opinions about the dating website were included as filler as well.

Meta-Essentialism. Meta-essentialist beliefs were measured using a modified version of the Essentialism Scale (Rhodes & Gelman, 2009) adapted by Mandalaywala, Amodio, and Rhodes (2017). Participants indicated the extent to which they believe that the gender ingroup couple member would endorse racial essentialism on a scale from 1 (*[James/Michelle] would strongly disagree*) to 7 (*[James/Michelle] would strongly agree*). Sample items include “Race is a natural category” and “People that are the same race have many things in common.” Responses were averaged such that higher scores on

the scale suggest greater belief that the ingroup couple member endorses racial essentialism ($M = 3.93$, $SD = 1.30$, $\alpha = .90$).

Racial essentialism. Participants' own racial essentialist beliefs were measured using the Essentialism Scale as adapted by Mandalaywala, Amodio, and Rhodes (2017) from Rhodes & Gelman (2009). Participants indicated their level of agreement with eight items measuring participants' perception of race as natural and innate on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The items used are identical to those in the meta-essentialism measure but referred to respondents' own beliefs. Responses were averaged into a composite such that higher scores reflect stronger endorsement of racial essentialism ($M = 3.80$, $SD = 1.37$, $\alpha = .92$).

Intergroup similarity. Perceptions of similarity between Black and White individuals were measured using a three-item perceived intergroup similarity measure that has been used in past work employing a similar brief exposure paradigm (Wilton et al., 2014). Participants indicated the extent to which they believe that Black and White individuals are similar to each other in terms of attitudes, beliefs, and interests using three items measured on a scale from 1 (*not at all similar*) to 7 (*very similar*). Participants' responses were averaged such that higher scores reflect greater perceived similarity between Black and White individuals ($M = 4.83$, $SD = 1.28$, $\alpha = .89$).

Attitudes toward Black people. Attitudes toward Black people were measured using a shortened version of the Attitudes Toward Blacks (ATB) scale (Brigham, 1993). Participants indicated the extent to which they agree or disagree with 20 items on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items include "It would not bother me if my new roommate was Black" and "I get very upset when I hear a White

person make a prejudicial remark about Black people.” Responses were averaged such that higher scores on the scale reflect more positive attitudes toward Black people ($M = 5.22$, $SD = 1.00$, $\alpha = .91$). Because item #7 (see Appendix B) directly addresses interracial couples, analyses reported below were conducted including and excluding this item.

Social Dominance Orientation. Participants’ endorsement of social hierarchy was measured using the eight item SDO_{7(s)} scale (Ho et al., 2015; Pratto et al., 1994). Participants indicated how much they favor or oppose each statement on a scale from 1 (*Strongly oppose*) to 7 (*Strongly favor*). Sample items include, “Some groups of people are simply inferior to other groups” and “Group equality should not be our primary goal.” Responses were averaged in a composite such that higher scores indicate higher endorsement of social hierarchy and attitudes about social inequality between groups ($M = 2.68$, $SD = 1.29$, $\alpha = .89$).

Demographics. Participants completed a screener prior to the study including three items assessing participant race, sexual orientation, and gender.

Open response. Two open response questions were used to gauge participants’ thoughts about the purpose of the study. One question is focused on perceptions of the first part of the study, and the second question is focused on perceptions of the second part of the study.

Additional measures. Though not formally a part of the master’s thesis, several additional measures were assessed for future research, including a brief measure of relationship history, and zip code where participants spent most of their life (see Appendix C).

Results

Preliminary analyses

I first examined the relationships among the variables of interest and possible covariates through bivariate correlations (see Table 1). As expected, racial essentialism was significantly correlated with intergroup attitudes and meta-essentialism in the expected directions. I then conducted several analyses of possible covariates in the study. Specifically, I examined gender, couple likeability, and couple perceptions as possible covariates, as well as couple member relatability and similarity to couple members per the request of the committee. The purpose of these preliminary analyses was to gauge whether or not it would be necessary to control for these variables in the main analyses of the DVs of interest.

Gender. In order to identify whether gender would need to be included as a covariate in subsequent analyses, I conducted five independent sample t-tests to examine whether there were gender differences in racial essentialism, meta-essentialism, intergroup similarity, SDO, and ATB. There were no gender differences found in racial essentialism, intergroup similarity, or meta-essentialism, $ps > .46$. There were however, significant gender differences in ATB, such that women had more positive attitudes toward Black people ($M = 5.35$, $SD = 1.00$) than did men ($M = 5.01$, $SD = 0.98$), $t(321) = 3.05$, $p = .003$. Additionally, there were significant gender differences in SDO, such that women had lower SDO ($M = 2.56$, $SD = 1.32$) than did men ($M = 2.86$, $SD = 1.22$), $t(322) = -1.99$, $p = .05$. Because of these gender differences in intergroup attitudes, subsequent analyses involving SDO and ATB included gender as a covariate.

Couple Likeability. I conducted a one-way ANOVA to examine whether couple likeability differed across the three couple exposure conditions and in turn whether couple likeability would need to be controlled for in subsequent analyses. There was a significant difference in couple likeability across the three couple exposure conditions, $F(2, 321) = 4.60, p = .01$. LSD post hoc tests revealed that participants indicated liking the WW intraracial couple ($M = 3.25, SD = 0.86$) significantly less than the BW interracial couple ($M = 3.51, SD = 0.91$), $p = .03$, and significantly less than the BB intraracial couple ($M = 3.59, SD = 0.82$), $p = .004$. There were no significant differences in couple likeability between those exposed to the BW interracial couple and those exposed to the BB intraracial couple, $p = .53$. Given the differences in couple likeability across the study conditions, I controlled for couple likeability in subsequent analyses involving the study conditions and the DVs of interest.

Couple Member Relatability. I conducted two one-way ANOVAs to examine whether the perceived relatability of the female member of the couple (Michelle) and the perceived relatability of the male member of the couple (James) differed across the three couple exposure conditions. This measure was included per the committee's request and was analyzed to identify whether couple member relatability would need to be included as a covariate in analyses of the dependent variables. Relatability of Michelle did not significantly differ across the three couple exposure conditions, $F(2, 321) = 0.66, p = .52$. Relatability of James also did not significantly differ across the three couple exposure conditions, $F(2, 321) = 0.52, p = .59$. Given these findings, I did not control for couple member relatability in analyses of the dependent variables.

Similarity to Couple Members. I also conducted two one-way ANOVAs to assess whether feelings of similarity to the female member of the couple (Michelle) and to the male member of the couple (James) differed across the couple exposure conditions. Much like couple member relatability, similarity to the couple members was included per the committee's request, and was analyzed to see whether to include similarity to the couple members as a covariate in analyses of the dependent variables. Much like couple member relatability, perceived similarity to Michelle did not significantly differ across the three couple exposure conditions, $F(2, 321) = 0.53, p = .59$, nor did perceived similarity to James, $F(2, 321) = 1.10, p = .33$. Given these findings, I did not control for similarity to either couple member in the analyses of the dependent variables.

Couple Perceptions. I conducted three one-way analyses of variance (ANOVA) to examine the effect of couple exposure condition on couple perceptions, specifically on perceived couple closeness, perceived couple happiness, and expected relationship duration. There were no significant differences in perceived couple closeness or expected relationship duration across the three couple exposure conditions, $F_s(2, 321) < 0.64, p_s > .60$, though the effect for couple happiness approached significance $F(2, 321) = 2.80, p = .06$. Thus, these variables were also not included as covariates in subsequent analyses.

Primary Analysis on Couple Exposure Effects

To test whether participants assumed that ingroup members held lower essentialism in the interracial couple condition (BW interracial) compared to the other intraracial couple exposure conditions (BB intraracial, WW intraracial), I conducted a one-way between-subjects ANCOVA on meta-essentialism while controlling for couple likeability. There was a significant difference in meta-essentialism by condition, $F(2,$

320) = 25.82, $p < .001$. LSD post hoc tests of the covariate adjusted means revealed that participants exposed to a BW interracial couple ($M = 3.25$, $SE = 0.12$) reported significantly lower meta-essentialism than those exposed to a WW intraracial couple ($M = 4.15$, $SE = 0.11$) or a BB intraracial couple ($M = 4.37$, $SE = 0.12$), $ps < .001$. There were no significant differences in meta-essentialism between those exposed to a WW intraracial couple and those exposed to a BB intraracial couple, $p = .18$.

To explore the effect of couple exposure condition (BW interracial, BB intraracial, WW intraracial) on racial essentialism and intergroup similarity, I conducted two one-way between-subjects analyses of covariance (ANCOVAs) controlling for couple likeability. Counter to my hypotheses, there were no significant difference in racial essentialism by condition, $F(2, 319) = 1.36$, $p = .26$, or in intergroup similarity by condition, $F(2, 319) = 0.32$, $p = .73$. Additionally, I conducted two one-way ANCOVAs to examine the impact of couple exposure condition on SDO and ATB while controlling for gender and couple likeability. There were no significant differences in SDO across the couple exposure conditions, $F(2, 319) = 0.19$, $p = .83$. Additionally, there were no significant differences in ATB across the couple exposure conditions, $F(2, 318) = 0.32$, $p = .73$. Covariate adjusted means for all of the dependent variables in the analyses of covariance can be found in Table 2.

The pattern of results reported above is consistent when including or excluding covariates in these analyses. These results suggest that the hypothesis that White perceivers exposed to BW interracial couples would indicate lower levels of racial essentialism and more positive intergroup behaviors and perceptions of similarity than those exposed to intraracial couples was not supported by the data. Per the request of the

committee, all analyses involving ATB were run a second time while omitting item 7 on the ATB scale because of its direct connection to interracial couples. The pattern of results was consistent both when including and omitting this scale item.

The Mediating Role of Meta-Essentialism

While the main DVs of racial essentialism and intergroup attitudes did not differ significantly across conditions, meta-essentialism did differ across conditions. I thus examined meta-essentialism as a mediator between the couple exposure conditions and racial essentialism, SDO, and ATB, as it is possible to find indirect effects even in the absence of total effects (Rucker, Preacher, Tormala, & Petty, 2011). To assess the hypothesis that meta-essentialism would mediate the relationship between couple exposure condition and racial essentialism and intergroup attitudes (H3), I conducted mediation analyses using Hayes' (2013) PROCESS Macro for SPSS 25.

I first examined meta-essentialism as a possible mediator between the couple exposure conditions and racial essentialism. I conducted a mediation analysis with bias-corrected bootstrapped confidence intervals (CI) with 10,000 resamples using PROCESS model four (Hayes, 2013), comparing those exposed to BW interracial couples (1) with those exposed to BB or WW intraracial couples (0). I also included couple likeability as a covariate in the model. There was a significant indirect effect of couple exposure condition on racial essentialism through meta-essentialism, $\beta = -0.82$, 95% CI = [-1.08, -0.57], as shown in Figure 1.

I then examined meta-essentialism as a possible mediator between the couple exposure conditions and attitudes toward Black people. I conducted a second mediation analysis using PROCESS model four (Hayes, 2013) with bias-corrected bootstrapped CI

with 10,000 resamples. For the couple exposure condition, I again compared those exposed to BW interracial couples (1) with those exposed to BB or WW intraracial couples (0). Given the results of the analyses of possible covariates, I included both gender and couple likeability as covariates in the mediation model. There was a significant indirect effect of couple exposure condition on attitudes toward Blacks through meta-essentialism, $\beta = 0.31$, 95% CI = [0.19, 0.45], as shown in Figure 2. I conducted this mediation a second time omitting item 7 on the ATB scale, per the request of the committee. The conclusions were the same.

In order to examine meta-essentialism as a possible mediator between the couple exposure conditions and social dominance orientation, I conducted a third mediation analysis. I again used PROCESS model four (Hayes, 2013) with bias-corrected bootstrapped CI with 10,000 resamples, compared those exposed to BW interracial couples (1) with those exposed to BB or WW intraracial couples (0), and included both gender and couple likeability as covariates in the mediation model. There was a significant indirect effect of couple exposure condition on social dominance orientation through meta-essentialism, $\beta = -0.31$, 95% CI = [-0.48, -0.17], as shown in Figure 3.

I initially conducted several mediation analyses comparing those exposed to BW interracial couples with those exposed to BB intraracial couples, and conducted separate analyses comparing those exposed to BW interracial couples with those exposed to WW intraracial couples. Because the pattern of results from these analyses were all significant, I only reported analyses that collapse across the two intraracial conditions.

Alternative Models

As requested by the committee, I conducted additional mediation analyses to compare alternative models to the models that include meta-essentialism as a mediator. For each of the reported analyses, I compared those exposed to BW interracial couples (1) with those exposed to BB or WW intraracial couples (0). I examined intergroup similarity as a possible mediator between the couple exposure conditions and racial essentialism, SDO, and ATB. I again conducted three mediation analyses with bias-corrected bootstrapped confidence intervals (CI) with 10,000 resamples using PROCESS model four (Hayes, 2013).

For the first mediation analysis, I included racial essentialism as the outcome of interest and couple likeability as a covariate in the model, as I did in previously conducted analyses. Intergroup similarity did not serve as a mediator between couple exposure condition and racial essentialism, $\beta = 0.001$, 95% CI = [-0.08, 0.08]. I then conducted a second mediation analysis with attitudes toward Blacks as the outcome of interest and both couple likeability and gender as covariates in the model. Again, intergroup similarity did not serve as a mediator between couple exposure condition and attitudes toward Blacks, $\beta = 0.001$, 95% CI = [-0.09, 0.09]. This effect remained non-significant when excluding item 7 of the ATB scale. In a third mediation analysis, Social Dominance Orientation served as the outcome of interest, while gender and couple likeability were included as covariates in the mediation model. Intergroup similarity did not serve as a mediator between couple exposure condition and Social Dominance Orientation through intergroup similarity, $\beta < 0.001$, 95% CI = [-0.07, 0.07].

Discussion

The number and visibility of interracial couples has grown significantly over the last 50 years, such that 10% of all married people in the U.S. in 2015, approximately 11 million people, were interracially married (Bialik, 2017). Approval of Black/White interracial marriage specifically has grown to 87% in the United States as of 2013 (Newport, 2013). Given the growing population of interracial couples and the growing acceptance of interracial unions, it is important to understand how the increased visibility of interracial couples impacts society's beliefs about race. Thus, the present work represents a crucial first step to examine how exposure to married Black/White interracial couples might influence White perceivers beliefs about similarity between Black and White people, racial essentialism, and intergroup attitudes.

Based on the literature on extended contact, social learning theory, social tuning, biracial exposure, and racial essentialism reduction, I hypothesized that White perceivers exposed to Black/White interracial couples would express lower levels of racial essentialism, greater perceived similarity between Black and White people, and more positive intergroup attitudes than those exposed to Black/Black or White/White intraracial couples. These effects were expected to stem from a social tuning process (Sanchez et al., 2015; Sinclair, Huntsinger, et al., 2005) whereby interracial couple members' low meta-essentialism would serve as a mediator between the couple exposure conditions and racial essentialism and intergroup attitudes.

In the present study, counter to my predictions, there were no significant differences in racial essentialism, intergroup attitudes (as measured by social dominance orientation and attitudes toward Blacks), or perceived intergroup similarity among White perceivers exposed to couples with varied racial compositions. Consistent with the

hypotheses, White men and women perceived those in Black/White interracial couples to be less likely to believe in racial essentialism compared to those in intraracial couples. Moreover, the results also supported the theory that meta-essentialism changes would play an indirect, mediating role between couple exposure and both racial essentialist beliefs and intergroup attitudes. Despite the absence of a direct effect of exposure on intergroup attitudes and racial essentialism, meta-essentialism's mediating role suggests that Black/White interracial couples do challenge essentialist conceptualizations of race, and that exposure to BW interracial couples could gradually influence the attitudes of White perceivers under different conditions. Interpreting these results warrants caution, however, given the absence of total effects of the couple exposure condition on the DVs.

The brief exposure to couples in the present work was designed to be similar to White individuals seeing images of interracial couples in media in their daily lives, such as in advertising or social media. Even with only brief exposure to these couples and limited personal information, White perceivers assumed that White men and women who married a Black individual consider race to be more socially constructed than biologically innate and distinctive. These findings suggest that when exposed to BW interracial couples, White perceivers may make assumptions about the conceptions of race held by people who engage in these relationships. It would be beneficial in future work to explore whether White perceivers consider the racial attitudes of interracial couples without being prompted and how these meta-essentialist perceptions influence the behaviors and beliefs of White perceivers (e.g., distrust of interracial couples, perceptions of loyalty or racial centrality of members of interracial couples).

Though the results for meta-essentialism are promising, the lack of direct effects of interracial couple exposure on intergroup attitudes and racial essentialism warrants some discussion. There are several possible reasons why there were no significant differences found in racial essentialism, intergroup attitudes, and intergroup similarity for perceivers across the couple exposure conditions. One possible reason is the use of the brief exposure paradigm. While using the brief exposure paradigm, in which perceivers are briefly exposed to target individuals, has been effective at reducing essentialism among those exposed to racially ambiguous targets (Sanchez et al., 2015), this paradigm lacks an opportunity for White perceivers to establish a meaningful connection to the interracial couple. The affiliative social tuning hypothesis proposes that people will alter or “tune” their social beliefs to the perceived social beliefs of another individual if they want (or need) to get along with that individual (Sinclair, Lowery, Hardin, & Colangelo, 2005). Social tuning is only likely to occur under circumstances when people are sufficiently motivated to “tune” their attitudes to the perceived attitudes of others. Situations involving brief exposure, as in the present work, are therefore limited in the extent to which they can provide sufficient motivation for perceivers to tune their attitudes to a target’s perceived attitudes.

There are several possible ways to increase motivation for perceivers to “tune” their attitudes to those of targets that should be explored in future work on interracial couples. Affiliative motivation has been found to be highest in situations where participants indicate liking a target (Sinclair, Huntsinger, et al., 2005; Sinclair, Lowery, et al., 2005). Therefore, future work should include paradigms that increase liking of a target or that manipulate liking of a target. For example, future work should include a live

interaction paradigm, in which two people interact several times over a brief period (i.e. one week) and evaluate one another, which has been effective at increasing familiarity and liking in past work (e.g., Reis, Maniaci, Caprariello, Eastwick, & Finkel, 2011). Using this paradigm, a White participant would interact several times with a same-gender, same-race target individual who is involved in either an interracial relationship or an intraracial relationship. This paradigm would likely increase affiliative motivation of the White participant, and could therefore prompt White participants to “tune” their attitudes to the perceived attitudes of the target interaction partner.

Future work should also include manipulations of liking, which has been successful at influencing affiliative motivation and social tuning (Sinclair, Huntsinger, et al., 2005; Sinclair, Lowery, et al., 2005). For example, White participants could interact with a same-race, same-gender target member of an interracial or intraracial couple. During the interaction, the target could share something (e.g., candy, a task-reward, a compliment) or have something in common with the White participant in a liking condition, and either refuse to share something, insult the participant, or have nothing in common with the White participant in a disliking condition. This type of manipulation has increased affiliative motivation and social tuning in past work (e.g., Sinclair, Huntsinger, et al., 2005; Sinclair, Lowery, et al., 2005), and could therefore lead White participants to tune their attitudes to the perceived attitudes of a target member of an interracial (or intraracial) couple in future work.

Alternatively, brief exposure to the interracial couple may also have been insufficient to directly shift interracial attitudes and racial conceptions because of the way that interracial couples challenge racial distinctiveness beliefs. Multiracial and racially

ambiguous individuals demonstrate a visual example of a racial distinctiveness challenge, as their appearances often include phenotypic prototypical traits from multiple racial groups within one individual. As proposed by Sanchez and colleagues (2015), these direct, visual challenges to racial distinctiveness may lead to high levels of uncertainty in categorizing racially ambiguous individuals that would not be invoked when viewing Black/White interracial couples. Interracial couples may still visually challenge racial distinctiveness, as the cross-racial nature of these relationships is typically visible to outside observers. Multiracial and racially ambiguous people visually demonstrate a blend of race-cuing traits, and therefore challenge beliefs that racial categories are inherently distinct and biologically different from one another. In contrast, prototypical race-cuing features could actually be more noticeable when viewing an interracial couple. Thus, the challenge that interracial couples pose to racial distinctiveness beliefs may be more behavioral than visual.

Yet, successful interracial couples model positive intergroup relations, challenge societal racial norms, and challenge assumptions about the inherent differences between racial categories. However, this distinctiveness challenge relies, in part, on perceivers believing that members of couples are similar to one another, rather than believing “opposites attract.” While no measures in the present work can directly speak to these beliefs, future work should explore the perceived similarity of couple members to each other as a moderator between couple exposure and perceivers’ conceptions of race.

Social learning theory suggests that people can learn by observing the modeled behaviors of others (Bandura, 1977). While social learning theory focuses on behavioral models, the subprocesses of social learning theory can help to provide insight into the

process of attitudinal changes, particularly when considered alongside social tuning. Of the subprocesses of social learning theory, attention, retention, and capability of reproducing behaviors are unlikely to explain the null findings in the present work, as attention was ensured via manipulation checks, the study was brief enough for retention to not be an issue, and perceivers were not expected to reproduce a behavior, but rather alter attitudes. The subprocess of motivation and incentive is the most likely of the subprocesses to play a role in the findings in the present work. Participants were not asked to directly engage with outgroup members, nor were they provided with any specific incentive for attitudinal change within the study. As such, in future work, it would be beneficial to construct experimental manipulations that would increase participants' motivation to alter their intergroup attitudes by, for example, including a direct interpersonal interaction aimed at increasing affiliative motivation, such as those previously described.

Another possible reason for the null effects of exposure condition on racial essentialist beliefs and intergroup attitudes in the present work is that the interracial romance may have inhibited perceivers' willingness to model their attitudes from the gender ingroup member of the interracial couple. The Black-Sheep Effect (Marques, Yzerbyt, & Leyens, 1988) occurs when people evaluate an ingroup member more negatively than a similar outgroup individual when the ingroup member violates ingroup norms in some way (Lewis & Sherman, 2010). White individuals who engage in interracial romantic relationships may be perceived as violating norms of dating within one's racial group. While no differences were found in the relatability, similarity, and couple likeability that would empirically support this interpretation, it is possible that

participants did not feel highly identified with their race or with the White member of the BW interracial couple, and the chosen measures did not capture this disconnect.

Limitations and Future Directions

While there are several strengths to the present work, there are some limitations as well. The present work involved indirect contact with couples of varying racial compositions. While there are benefits to indirect contact, such as exposing people to outgroup individuals they may not otherwise encounter in person, the effects of direct contact on intergroup attitudes tend to be stronger than the effects of indirect contact (Dovidio et al., 2011; Zhou et al., 2018). As such, future research should explore whether direct contact with interracial couples would shift intergroup attitudes and racial essentialist beliefs among White perceivers.

When constructing manipulations that may lead to attitude change, questions often arise regarding the long-term effect of those manipulations on attitude change. In considering the impact of contact on changes in racial essentialism, past work has found decreases in racial essentialism both immediately following an intergroup interaction with a racially ambiguous individual and two weeks later (Sanchez et al., 2015).

Additionally, long term exposure to an environment high in racial diversity, specifically including a large multiracial population, has been found to lead to reductions in racial essentialist beliefs, SDO, and modern racism over time (Pauker et al., 2017). This work suggests that attitude changes can be seen over time using longitudinal manipulations and intergroup interactions. As the present study was not longitudinal in design, it was not possible to assess sustained attitude changes following the manipulation.

Another limitation in the present work pertains to the order in which participants were asked questions. All questions focused on the couples and the manipulation were included in the first part of the study, which participants were led to believe was separate from the attitudinal measures (DVs) included in the second part of the study. As such, participants responded to the meta-essentialism measure, which was included as a mediator in the present work, prior to indicating their own racial essentialism, intergroup attitudes, and perceived intergroup similarity. This order may explain why meta-essentialism was the only outcome that was consistent with hypotheses. Additionally, racial essentialism was measured only once after the couple exposure manipulation, inhibiting my ability to measure changes in racial essentialism. In future work, I intend to further randomize the order in which measures appear to participants so that order effects will not be of concern, and plan to measure racial essentialism both before and after exposing participants to interracial couples.

The findings of the present study offer several interesting avenues for future work. In the present study, I included several measures for which I did not conduct analyses. In the future, I intend to conduct secondary data analysis to explore zip code, level of prejudice, and perceived intergroup similarity as moderators in the relationship between couple exposure condition and racial essentialism and intergroup attitudes. Another moderator that I hope to explore in future work is zero sum beliefs about relationships. For example, White perceivers who view their ingroup dating pool as smaller due to Black individuals dating interracially (i.e., believe that interracial dating narrows their own dating pool) might look less favorably upon interracial relationships and be less likely to show positive shifts in interracial attitudes as a function of exposure.

Future studies should also consider employing longitudinal designs involving frequent contact between a White participant and a gender/racial ingroup member of an interracial couple in which they discuss their interpersonal relationships and engage in bonding activities (e.g., extended Fast Friends procedure, Page-Gould, Mendoza-Denton, & Tropp, 2008; I-Sharing, Piel, Long, & Crimin, 2008). As previously mentioned, paradigms that manipulate or increase liking of the target member of an interracial couple should be included in future work to increase the likelihood that White perceivers will “tune” their attitudes to the perceived attitudes of the target. Additionally, future work could involve exposure to a greater number of interracial couples to gauge what level of exposure to interracial couples broadly would be needed to shift participant attitudes.

Future studies should examine the role of success/failure of interracial couples as well. While the present work focused on how exposure to successful (i.e. married) Black/White interracial couples could influence conceptions of race, it is also important to consider the role of relationships that fail. A failed interracial relationship could be perceived as validating beliefs about racial group distinctiveness, possibly leading White perceivers to further endorse or strengthen racial essentialist beliefs. Therefore, White individuals exposed to failed (i.e. divorced) BW interracial couples may express higher levels of racial essentialism, more negative intergroup attitudes, and lower perceived intergroup similarity than White individuals exposed to successful interracial couples or unsuccessful intraracial couples. This work would provide insight into the role of increasingly visible interracial couples, both successful and unsuccessful, in shaping the attitudes of White perceivers.

Concluding Remarks

The present work suggests that brief exposure to Black/White interracial couples was not sufficient to lead to changes in racial essentialist beliefs, perceived intergroup similarity, and intergroup attitudes. However, White members of BW interracial couples were perceived as being lower in essentialism compared to those in intraracial relationships. Although in the present work participants did not report significant shifts in their own attitudes, the assumption that White members of BW interracial couples are low in essentialism suggests that in situations where White perceivers are sufficiently motivated to “tune” their beliefs to the perceived beliefs of the members of interracial couples, attitude change is possible. Several questions remain regarding the consequences of exposure to interracial couples that future research should explore. As interracial couples become increasingly visible in modern society, it is important to understand the role of that visibility in shaping and shifting people’s attitudes about race. The present work is among the first to explore the role of the growing visibility of interracial couples on people’s attitudes, but more work is necessary to better understand the consequences of greater interracial couple exposure.

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Table 1. Bivariate Correlations among Key Variables

Variable	1	2	3	4	5	6	7	8	9	10
1. Racial Essentialism	–									
2. Meta-Essentialism	.70**	–								
3. ATB (positive)	-.53**	-.29**	–							
4. SDO	.39**	.23**	-.77**	–						
5. Intergroup Similarity	-.21**	-.07	.42**	-.27**	–					
6. Couple Likeability	.11*	.15**	.20**	-.19**	.25**	–				
7. Relatability (Michelle)	.18**	.22**	.09	-.09	.22**	.52**	–			
8. Relatability (James)	.20**	.23**	.06	-.04	.18**	.52**	.80**	–		
9. Similarity (Michelle)	.18**	.20**	.02	.00	.21**	.48**	.63**	.49**	–	
10. Similarity (James)	.19**	.18**	-.13*	.15**	.11*	.40**	.49**	.61**	.55**	–

** $p < .01$ * $p < .05$

Table 2. Covariate Adjusted Means of Dependent Variables Across Couple Exposure Conditions

Variable	BW Interracial Couple Exposure		BB Intraracial Couple Exposure		WW Intraracial Couple Exposure	
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Racial Essentialism	3.65	0.13	3.96	0.13	3.78	0.13
Meta-Essentialism	3.25	0.12	4.37	0.12	4.15	0.11
ATB (positive)	5.16	0.10	5.26	0.10	5.24	0.09
SDO	2.74	0.12	2.65	0.12	2.64	0.12
Intergroup Similarity	4.83	0.12	4.91	0.12	4.77	0.12

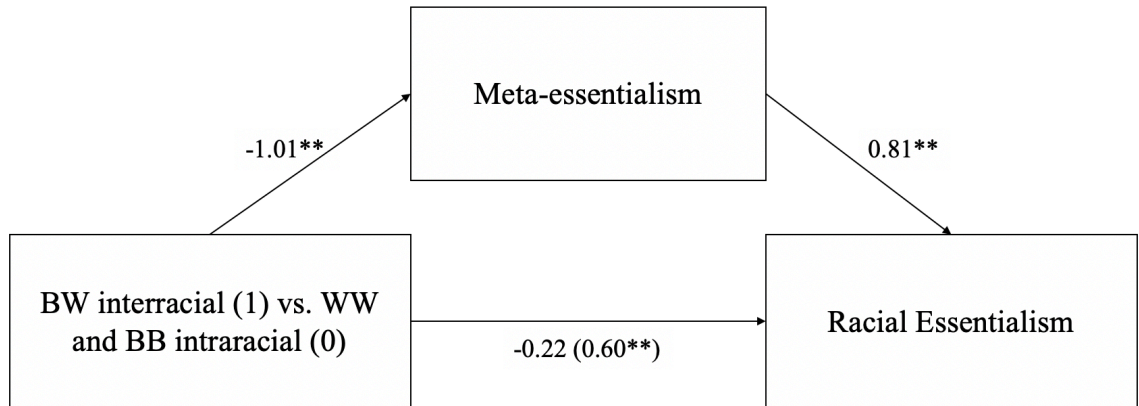


Figure 1. Results of mediation analyses of the meta-essentialism and racial essentialism of those exposed to BW interracial couples with those exposed to WW or BB intraracial couples. Couple likeability was included in the model as a covariate. Unstandardized coefficients and are shown. The direct effect is included in parentheses next to the total effect of condition on racial essentialism. Asterisks indicate pathways that are significant ($*p < .05$, $**p < .01$).

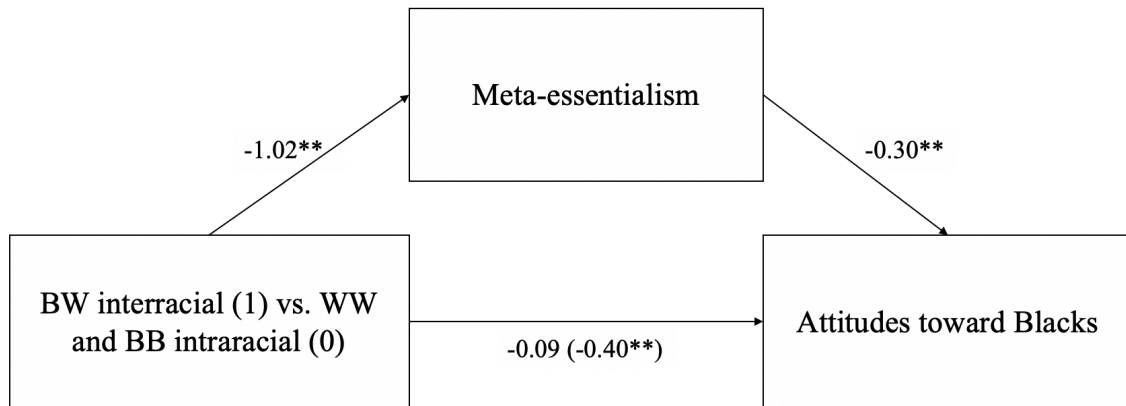


Figure 2. Results of mediation analyses of the meta-essentialism and ATB of those exposed to BW interracial couples with those exposed to WW or BB intraracial couples. Couple likeability and gender were included in the model as covariates. Unstandardized coefficients are shown. The direct effect is included in parentheses next to the total effect of condition on attitudes toward Blacks. Asterisks indicate pathways that are significant ($*p < .05$, $**p < .01$).

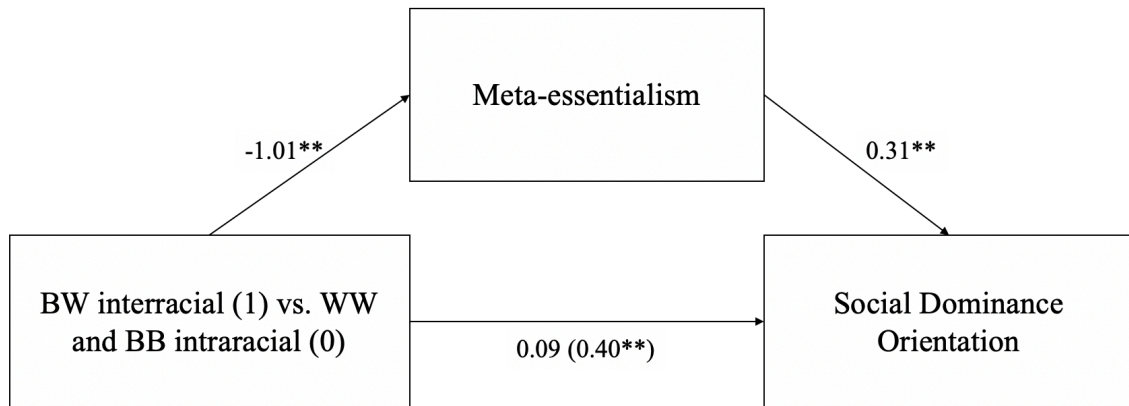


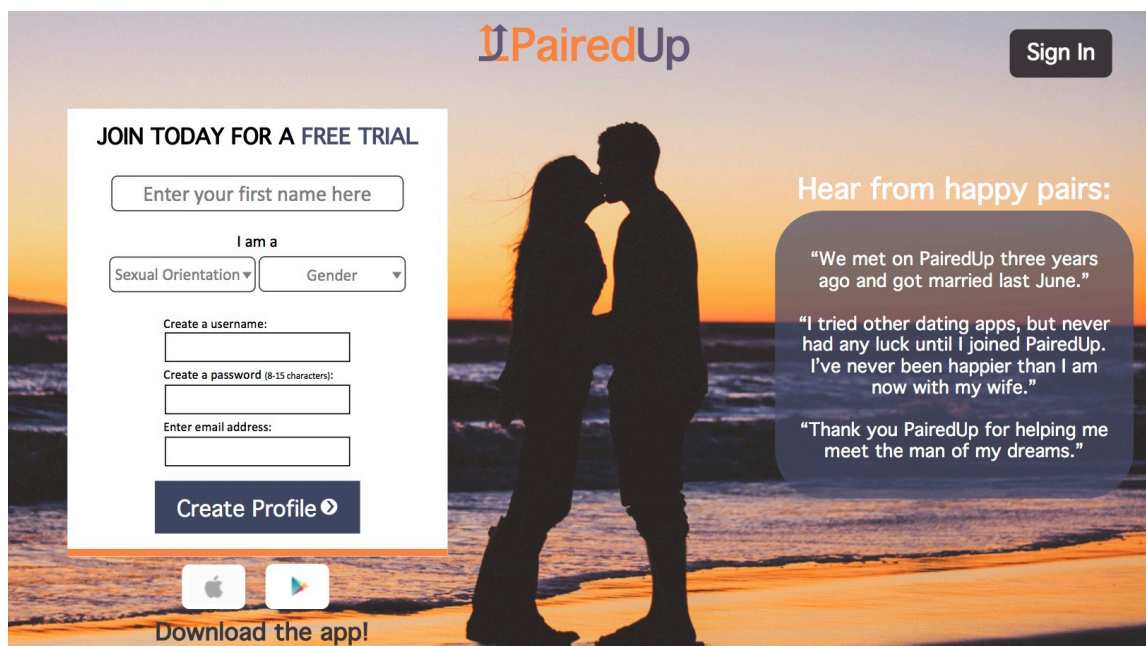
Figure 3. Results of mediation analyses of the meta-essentialism and SDO of those exposed to BW interracial couples with those exposed to WW or BB intraracial couples. Couple likeability and gender were included in the model as covariates. Unstandardized coefficients are shown. The direct effect is included in parentheses next to the total effect of condition on social dominance orientation. Asterisks indicate pathways that are significant (* $p < .05$, ** $p < .01$).

Appendix A

Dating Website Stimuli Passage

PairedUp is a dating website that was piloted in 2012 on a small part of the population. People who join PairedUp are asked to fill out information about where they live and what interests and hobbies they have. They are then asked to fill out our “matchmaker” quiz which helps us find someone’s perfect match. Users are given the option to provide additional information as well, such as what they do for work, where they grew up, what their favorite books and movies are, and more! At PairedUp, our service uses an algorithm to assess the profiles of users who live within a certain distance of each other and then we give people “suggested match” options which allow people to view the profiles of users that the website has “paired” them with. We love to see our users get PairedUp, and hope you’ll consider joining after the full release of the app this year!

Dating Website Image Stimuli



The image shows the PairedUp website landing page. The background is a romantic sunset scene with a couple silhouetted against the ocean. The PairedUp logo is at the top center, and a 'Sign In' button is at the top right. On the left, a 'JOIN TODAY FOR A FREE TRIAL' form is displayed. On the right, a section titled 'Hear from happy pairs:' features three testimonials in a dark blue box.

JOIN TODAY FOR A FREE TRIAL

Enter your first name here

I am a

Sexual Orientation Gender

Create a username:

Create a password (8-15 characters):

Enter email address:

Create Profile

Hear from happy pairs:

“We met on PairedUp three years ago and got married last June.”

“I tried other dating apps, but never had any luck until I joined PairedUp. I’ve never been happier than I am now with my wife.”

“Thank you PairedUp for helping me meet the man of my dreams.”

Download the app!

Couple Exposure Stimuli Passage

This is James and Michelle! They met on PairedUp and have now been married for two years. James and Michelle were a “suggested match” on PairedUp because they had a lot in common according to their dating profiles. They struck up a conversation one day and decided to meet for a coffee date. They connected quickly and have been together ever since. They currently live in Pittsburgh, PA, and in their free time, they enjoy going for walks with their dog in the park and cooking together.

Couple Photographs

Note: All couple images were provided by a research lab that retrieved the images from a variety of sources online that indicated the pictures were free for use and distribution without copyright restrictions.

Photos for Black/Black Exposure Condition:



Photos for female respondents in Black/White Exposure Condition:



Photos for male respondents in Black/White Exposure Condition:





Photos in White/White Exposure Condition:



Couple Perceptions (PI Created)

How happy do you think James and Michelle are together? *1(Not at all happy) to 7 (Extremely happy)*

How close do you think James and Michelle are to each other? *1(Not at all close) to 7 (Extremely close)*

How long do you think James and Michelle will be together/married? *1(For a short amount of time) to 7(For the rest of their lives)*

Couple Member Relatability (PI Created)

How relatable is Michelle? *1(Not at all relatable) to 7 (Extremely relatable)*

How relatable is James? *1(Not at all relatable) to 7 (Extremely relatable)*

Similarity to Couple Members (PI Created)

How similar do you think you are to Michelle? *1(Not at all similar) to 7 (Extremely similar)*

How similar do you think you are to James? *1(Not at all similar) to 7 (Extremely similar)*

Couple Likeability (Sanchez et al., 2017)

Based on the information you know about the couple, please respond to the following questions.

1 (Very Slightly or Not at all) 2 (A Little) 3 (Moderately) 4 (Quite a Bit) 5 (Extremely or A lot)

How much would you enjoy interacting with James and Michelle?

How much do you think you would like James and Michelle?

How much would you like to meet James and Michelle?

How well do you think you would get along with James and Michelle?

Manipulation Check

What is James' race?

[White, Black, Hispanic, Asian, Native American, Middle Eastern]

What is Michelle's race?

[White, Black, Hispanic, Asian, Native American, Middle Eastern]

Website Opinions

How effective do you think the dating website, PairedUp, is at pairing compatible users?

Not at all effective (1) to Extremely effective (7)

How successful do you think PairedUp is at creating lasting relationships?

Not at all successful (1) to Extremely successful (7)

How interested would you be in using a dating website like PairedUp?

Not at all interested (1) to Extremely interested (7)

Memory Test

Where do Michelle and James live?

[Boston, MA; Santa Barbara, CA; Atlanta, GA; Pittsburgh, PA]

Where did James and Michelle meet?

[In college; At work; Through a mutual friend; On an online dating website; in high school]

What is the name of the dating website?

[Matchster, Fate Date, PairedUp, It Takes Two, Perfect Match]

How do people meet on the website?

[Users swipe through profiles and “heart” the ones they like; People are able to message anyone using the website who lives within a 30-mile radius; The website uses information from user profiles to give a “suggested match”; Users search for specific features of other users (e.g. personality, age, interests) and are given a list of nearby users with those features]

Meta-Essentialism Scale (in Mandalaywala, Amodio, & Rhodes, 2017 modified from Rhodes & Gelman, 2009)

Scale: 1 ([Michelle/James] would strongly disagree) to 7 ([Michelle/James] would strongly agree)

Please indicate the extent to which you believe **Michelle/James** would agree or disagree with the following statements:

1. Race is a very important part of what makes people who they are
2. People that are the same race inherently have many things in common
3. Knowing someone's race tells you a lot about a person
4. Race is an all-or-none category; people are either white OR black, there is nothing in between
5. Race is a natural category
6. Race categories are important in all cultures around the world
7. White people share an underlying property that causes them to have many similarities

8. Black people share an underlying property that causes them to have many similarities

Appendix B

Essentialism Scale (in Mandalaywala, Amodio, & Rhodes, 2017 modified from Rhodes & Gelman, 2009)

Scale: 1 (Strongly Disagree) to 7 (Strongly Agree)

Please indicate the extent to which you agree or disagree with the following statements:

1. Race is a very important part of what makes people who they are
2. People that are the same race inherently have many things in common
3. Knowing someone's race tells you a lot about a person
4. Race is an all-or-none category; people are either white OR black, there is nothing in between
5. Race is a natural category
6. Race categories are important in all cultures around the world
7. White people share an underlying property that causes them to have many similarities
8. Black people share an underlying property that causes them to have many similarities

Intergroup Similarity (Wilton et al., 2014)

Using a scale from 1(not at all similar) to 7(very similar), how similar do you think

Black and **White** people are in terms of the following:

Attitudes

Interests

Beliefs

Attitudes Toward Blacks (Brigham, 1993)

Scale: 1 (Strongly Disagree) to 7 (Strongly Agree)

Please indicate the extent to which you agree or disagree with the following statements:

1. If a Black person were put in charge of me, I would not mind taking advice and direction from them. (SD)
2. If I had a chance to introduce Black visitors to my friends and neighbors, I would be pleased to do so. (SD)
3. I would rather not have Black people live in the same apartment building I live in. (SD)
4. I would probably feel somewhat self-conscious dancing with a Black person in a public place. (SD)
5. I would not mind it at all if a Black family with about the same income and education as me moved in next door. (SD)
6. I think that Black people look more similar to each other than White people do. (AR)
7. Interracial marriage should be discouraged to avoid “who-am-I?” confusion which the children feel. (AR)
8. I get very upset when I hear a White person make a prejudicial remark about Black people. (AR)
9. I favor open housing laws that allow more racial integration of neighborhoods. (AR, GP)
10. It would not bother me if my new roommate was Black. (AR)
11. It is likely that Black people will bring violence to neighborhoods when they move in. (AR)

12. I enjoy a funny racial joke, even if some people might find it offensive. (AR)
13. The federal government should take decisive steps to override the injustices Black people suffer at the hands of local authorities. (GP)
14. Black and White people are inherently equal. (GP)
15. White people should support Black people in their struggle against discrimination and segregation. (GP)
16. Generally, Black people are not as smart as White people. (GP)
17. I worry that in the next few years I may be denied my application for a job or a promotion because of preferential treatment given to minority group members.
18. Racial integration (of schools, businesses, residences, etc.) has benefitted both White and Black people. (GP)
19. Some Black people are so touchy about race that it is difficult to get along with them.
20. When I see an interracial couple I feel that they are making a mistake in dating each other.

Note: (SD)= social distance, (AF) = affective reaction, (GP) = governmental policy

Social Dominance Orientation_{7S} (Ho et al., 2015)

Show how much you favor or oppose each idea below by selecting a number from 1 to 7 on the scale below. You can work quickly; your first feeling is generally best.

Scale: 1(Strongly Oppose) to 7(Strongly Favor)

1. An ideal society requires some groups to be on top and others to be on the bottom.
2. Some groups of people are simply inferior to other groups.

3. No one group should dominate in society.
4. Groups at the bottom are just as deserving as groups at the top.
5. Group equality should not be our primary goal.
6. It is unjust to try to make groups equal.
7. We should do what we can to equalize conditions for different groups.
8. We should work to give all groups an equal chance to succeed.

Demographics

What is your racial background? (Check all that may apply)

- ☐ White/Caucasian
- ☐ Black/African American
- ☐ Hispanic/Latinx
- ☐ Asian
- ☐ Native American
- ☐ Middle Eastern
- ☐ Not listed: _____

What is your gender identity?

- ☐ Woman
- ☐ Man
- ☐ Another identity not listed: _____

How old are you? _____

What is your sexual orientation?

- ☐ Straight
- ☐ Gay
- ☐ Lesbian
- ☐ Bisexual
- ☐ Queer
- ☐ Not Listed: _____

Open Response

Please use the space below to write what you think were the purposes of the present studies.

Appendix C

Relationship History

Have you ever been in a romantic relationship? Yes/No

Of the people you have dated in the past, what percent (from 0-100%) of those people identified as:

[Men, Women, Not listed: _____]

Of the people you have dated in the past, what percent (from 0-100%) of those people identified as:

[White, Black, Hispanic/Latinx, Asian, Biracial/Multiracial, Native American, Middle Eastern, Not listed: _____]

Zip Code

What is the zip code where you have spent the most of your life? _____